REPORT

OF THE

STATE UNIVERSITY

OF IOWA.

OCTOBER 1, 1893.

PRINTED BY ORDER OF THE GENERAL ASSEMBLY.

DES MOINES: G. H. RAGSDALE, STATE PRINTER. 1893,

REPORT.

To the Honorable J. B. Knoepfler, Superintendent of Public Instruction:

Sir:—The regents of the State University of Iowa herewith present their biennial report covering the period from the close of the school year of 1890-91 to the close of the school year of 1892-3.

In view of the numerous duties in the several faculties of the university, during the biennial period, it is gratifying to the managing board to be able to report the utmost harmony in all departments of the institution, and a growing interest on the part of the students.

The president's report, herewith submitted, makes a comparative showing of the number of students in the respective departments during the biennial period, from which it appears that the increase shown by the last year of the biennial period over the first year is eighty-three. Reference is made to the president's report for particulars.

There is also submitted herewith the financial reports of the treasurer and secretary of the board respectively. The treasurer's report shows the condition of the permanent fund of the university to be healthful. The fund at the date of the treasurer's report in June, 1893, showed an aggregate of \$232,064.65, a decrease of \$1,831.40 since the date of the last biennial report, resulting from the transfer of a few claims regarded as worthless to the suspended claims account, and the foreclosure of mortgages and the purchase of the property as shown by the treasurer's report. The treasurer's report also shows the incomes and expenditures in gross on account of the general fund.

The secretary's report, herewith submitted, shows incomes and disbursements on account of the general support fund, as nearly as may be by school years and in sufficient detail to give a clear idea TB2

of the sources of incomes and avenues of expenditure. From this report it appears that the total receipts from all sources on account of the general support fund during the biennial period were \$201,767.36, the available balance on hand at the beginning of the period \$20,153.09, total available \$221,920.45. The total expenditures during the period were \$219,410.81, leaving a balance at the end of the period of \$2,509.64.

The secretary's report also shows the condition of the several appropriations made by the general assembly for Special Purposes. For fuller information on these several matters, reference is made to the Secretary's report.

The law makes it the duty of the board of regents to report biennially upon the condition of the university fund, to account for moneys coming into the treasury, and to show in detail for what purposes the money is expended, and by implication at least it is made the duty of the board fairly and clearly to set forth the needs of the university, in order that it may accomplish the objects for which it was established.

In the performance of this duty, your especial attention, and through you, the especial attention of the governor of the state and of the general assembly, is called to the report of the president of the university, herewith submitted.

FIRST-A COLLEGIATE BUILDING.

The body of a well proportioned university is its collegiate department. That this university may continue to flourish and hold its rightful position as the bright crown of our public school system, it should provide abundant room for its professors its class and seminary work. Each chair should be equipped commensurate with the work it has to perform. The present situation is one of extraordinary disadvantage, both before the public and before the students. Not a single chair or professor has adequate accommodations. In one instance three professors have, during the past year, occupied one room nineteen by twenty-one, and that lighted and ventilated by a single window, while other rooms, equally unsuitable, which have from time to time been abandoned as unfit for other purposes are now occupied by some of their number. We also instance the department of psychology which has no room for a laboratory, which is indispensable for efficient instruction in modern psychology. Even for the meager supply of books, maps, charts, periodicals and other apparatus,

they have no space. Many chairs stand in pressing need of special libraries, which should be placed in the lecture room, or in a room immediately adjacent, but no such facilities exist.

During the past five years there has been organized, in connection with each chair, a seminary for special study and research. These seminaries require rooms separate from the lecture rooms, and suitably fitted up with the proper apparatus. Such a seminary room, with its special reference library, is a literary or philosophical laboratory, in which professors and students work side by side. Modern university experience has sufficiently demonstrated the ntility of such seminaries. No teacher is capable of attaining the best results without them. Without such helps we cannot hope to compete with other universities having the modern equipments, and the need of them, if less palpable than the need of the chemist for a laboratory, or of the naturalist for a museum, is no less real. That the professors' chairs may be properly equipped with lecture and seminary rooms and private offices, and with special library, maps, charts, and other needful apparatus, an ample collegiate building is, by the board, believed to be a matter of first importance. While the best of professors are of vital importance in developing a first class university, they should have ample room and abundant working tools if these results are to be secured. The first have been attained. The second and third are sadly wanting. Hence urgent request for an ample appropriation in this behalf is made by this board. For this building the board recommends an appropriation of \$80,000.

SECOND--A MEDICAL AND SURGICAL HOSPITAL.

One of the urgent needs of the university is a hospital building. From the inception of the medical department of the university, in 1869, to the present time, hospital facilities have been meager; and owing to inadequate appropriations by the state, the board of regents have found it to be impossible to provide facilities commensurate with the growth and importance of the medical department. For more than twenty years the state has been inviting students to come to this school of medicine, instead of seeking such schools in other states; and yet it has neglected to provide such ample hospital facilities as other state schools of medicine furnish for their students. Our only recourse is to the general assembly, and to that body again this board presents the case. An ample and well conducted state hospital in close connection with the state schools of medicine is a necessity and is of equal importance with

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any other state institution or beneficence. In the state there are always hundreds of indigent people who are suffering for medical and surgical treatment, but who are unable to buy it. To such the duty of the state is as plain, as urgent, as it is in the case of the deaf, the dumb, the blind, or idiotic. For such the demand for hospital facilities is of prime and economical importance. To heal the indigent or the well provided sick, to place them on their feet again, to restore them to a condition of usefulness, to the family, community and state, is the province of the hospital herein sought for. In a hospital operated in connection with the medical departments of the State University, abundant clinical patients are thus provided, and while the sick are being healed, the blind made to see, and the lame restored to usefulness, the student is being instructed in the art of medicine and surgery. The medical school and the hospital are inseparable where the best educational results are sought.

More than this, the medical hospital is the proper training school for nurses—the nurses that are in every-day demand in the charitable institutions of the state and in our families. Urging, then, the admitted fact that the well trained nurse is the handmaid of the physician, and urging attention, also, to the constant and increasing need of educated nursing help, this board once more petitions for this hospital, this place of healing, teaching, and the training of such as are to be our physicians, our surgeons, and our nurses. It is not an expense to the state, but an economy. It is not a tax, it is a Christian benefaction, a tender, hopeful, helping hand. For this an appropriate sum is asked. For this building, the sum of \$40,000 is recommended.

HOMEOPATHIC HOSPITAL.

For the same reasons that are set forth in the foregoing, an appropriation of \$15,000 is recommended for the homeopathic department.

THIRD-GENERAL LIBRARY.

The accumulation of books in the general library amounts to about twenty-five thousand volumes besides maps, charts and papers, the money value of which exceeds one hundred thousand dollars. All this valuable and indispensable property is without adequate protection from loss by fire. It should be housed as the university libraries of most other states are, in an independent fire-proof edifice and in this interest a liberal appropriation is recommended.

In addition to this there should be an appropriation of \$10,000 for new books, repairing or replacing worn out books, binding magazines and pamphlets, and the general administration of this department. The library of this university numbers less, by many thousands of volumes, than that of any prominent state university in the country. The library is the lungs of the university body, and to disregard its amplitude and efficiency is to disregard the order of progress in teaching. To fall behind in the matter of current literature, and to neglect to furnish the literary food the State has promised to such as come to its chief school of learning, is to lose place in the procession of universities. To meet its growing demands, the floor space hitherto occupied for other purposes has been turned over to the occupation of added book cases, shelving, periodical racks, reading tables and chairs, and even now more and better space is needed for books, and reading tables and study rooms.

THE LAW LIBRARY.

The great increase of the law department has caused most urgent demands for more library room, more lecture room, more reading and office room, and more books. To keep up with the constant and increasing demand for new books and the repair of worn ones, and to furnish the necessary cases, tables, and care, an appropriation of \$5,000 is recommended. This department has become self-sustaining as to its teaching and lectures. All that is required of the State is room and books.

FIFTH-PHYSICAL LABORATORY.

The increased demand for education in the field of physics impels the board of regents to make an earnest request for a liberal appropriation. Its pressing needs for the next biennial period will not be less than \$5,000, which sum is hereby recommended.

SIXTH-DENTAL DEPARTMENT.

The time has arrived when action should be taken in the interest of this prosperous department. Its room is both unwholesome and inadequate. Its mechanical work is done in a cellar which has several times been abandoned as dangerous to health. It has no lecture room. It has no space for more operating chairs. It must have more room and better facilities in order to retain its present degree of prosperity, that it has cost so much effort to achieve. It is therefore recommended that the sum of \$20,000 be appropriated for a new building for this department, and \$2,500 for necessary

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repairs and equipment. For further information upon this subject, reference is made to the supplementary report of the dean, attached to the report of the president, which is printed herewith.

SEVENTH-BOTANY.

The large and constantly increasing demands upon this chair make it necessary that its facilities for instruction be increased in every direction. To enable the faculty to meet the proper and needful requirements, an appropriation of \$4,000 is recommended.

EIGHTH-BIOLOGY.

For the same reasons as set forth in the former paragraph, the board earnestly recommends, for the development of the chair of biology, a like appropriation of \$4,000.

NINTH-ZOOLOGY.

In this chair, which includes the natural history museum, more facilities of every kind are needed. It needs more room for the proper display of its museum supplies, which are constantly increasing. It needs more and better facilities for storing and preparing specimens. In a word, the department has outgrown its present limited room in the top of the science building, and is in need of a new and independent fire-proof building. For the present, however, and in order to preserve, prepare and display its valuable accumulations, an appropriation of \$4,000 is earnestly recommended.

GEOLOGY.

For the further necessary development of the interests of geology in this university an appropriation of \$4,000 is recommended.

CHEMICAL LABORATORY.

No part of the university is more in demand by the assembled students. Its needs for scientific development and accurate instruction are constant and pressing. For the next biennial period an appropriation of \$5,000 is urgently recommended.

PHARMACY.

For precisely the same reasons as set forth in the foregoing paragraph, the sum of \$2,000 should be appropriated for the use of the department of pharmacy.

HISTOLOGY.

For the chair of histology in the medical department, an appropriation of \$1,000 is recommended.

ENGINEERING.

For the further development and conduct of the chair of engineering, the sum of \$2,500 is recommended for the next biennial period.

FOR PURCHASE OF GROUNDS.

It should be remembered that no grounds have been provided by the state for athletic purposes. Nor need it be forgotten that the state has never provided a foot of ground in any shape for its university. All that has been received in that line was from the generous hand of the United States and from Iowa City. Young people must take exercise. The streets are not inviting for that purpose, nor elevating. There is not another university campus in the country, so far as your committee is aware, that has not more than forty acres, and from that up to six hundred. The campus of the state university of Iowa has twelve acres, mostly unavailable for athletic sports of any sort. That this is wrong must be admitted without a word of dissent. That the state is able and under obligations to right it, is equally true. Therefore the board makes recommendation that \$5,000 be now set apart for the purchase of a field-sport tract for university purposes.

ELECTRICAL LIGHTING AND ENGINEERING.

In the interests of safety, economy, and useful instruction in the schools of engineering and physics, the board has deemed it wise to ask for an appropriation for an electrical plant, the wires to be extended to all the university buildings for illuminating and other purposes. When it is taken into account that a large number of students are anxious to receive instruction in this branch of science, it is deemed unwise for this university to ignore it.

REPAIRS AND CONTINGENT EXPENSES.

Several of the university buildings, walks and fences require considerable sums for repairs and rebuilding. Much painting should be done. The roof of the medical building should have the shingles replaced with slate, the new buildings require additional janitor and firing help, and more fuel will be needed. Hence an increased appropriation under this head will be found indispensable.

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A FIXED TAX LEVY.

THE STATE UNIVERSITY.

The university has long been crippled by lack of funds, and has barely lived in a hand-to-mouth way, unable to lay out work in advance, and forecast the future. The effort has been to make ends meet. The institution would be vastly benefited if she had the fruits of a fixed small tax, as her sister universities in other states have, say one-fourth of a mill per annum. The university cannot well grow under existing conditions. She has to come to the biennial legislature to clamor for funds, and take the chances. A fixed tax would obviate this chronic trouble.

State universities fare thus in the way of a fixed tax:

Michigan gets one-sixth of a mill.

Wisconsin, nine-fortieths of a mill.

Ohio, one-twentieth of a mill.

Nebraska, three-eighths of a mill.

Minnesota, three-twentieths of a mill.

California, one-tenth of a mill.

Kansas, a fraction sufficient to net \$75,000 per annum.

Iowa university has an annual income of but \$125,000; Michigan gets \$400,000; California, \$270,000; Wisconsin, \$270,000; Cornell, \$500,000.

In the way of buildings, Iowa has given to the university \$200,-000, while Kansas has given \$404,000; Missouri, \$650,000; Minnesota, \$609,000; Wisconsin, \$790,000; Michigan, \$857,000.

A fixed tax of a fraction of a mill is a great desideratum.

RECOMMENDATIONS.

It is with the utmost care in distributing the income for general purposes to the varied and growing wants of the several departments of the university, that the board of regents is able to keep them up to the breadth and standard of the work now attained. And the board is of the opinion that the time has come when the interests of the school demand liberal appropriations, both for general support and for special purposes. Without them it cannot long maintain the position which it has already attained, and advancement will be out of the question.

Appropriations are asked:

First—To meet pressing needs, some of which have been briefly referred to.

Second—To meet the growing demands, which the youth of the state are yearly making for better educational facilities, and which they will seek outside the state if they cannot find them within.

In view of the situation thus briefly stated, the higher educational interests of the people of the state, represented in their university, are confidently presented for the consideration of yourself as superintendent of public instruction, to the governor of the state, and to the general assembly, with the recommendation that appropriations be made by the twenty-fifth general assembly for the following purposes:

Collegiate department, building and furniture	80,000
	30,000
	15,000
	10,000
Law library	5,000
Physical laboratory	5,000
Dental department	22,500
Engineering chair	2,500
Botany, \$4,000; biology, \$4,000; zoology, \$4,000; geology,	- Constitution
84,000	16,000
Chemistry, \$5,000; pharmacy, \$2,000	-7,000
Histology	1,000
Repairs and contingent	15,000
Additional support	90,000
Psychological Laboratory and equipment	3,000
Pathology and Bacteriology	2,000
Athletic grounds	5,000
Removal of heating plant and increasing its capacity	7,000
Electrical plant	6,000
Respectfully submitted	A 3 1 1 1 1 1

Respectfully submitted,

SHIRLEY GILLILLAND, ALBERT W. SWALM, H. A. BURRELL, D. N. RICHARDSON, J. D. McCLEARY, B. F. OSBORN,

Committee for the Board.

Iowa City, Iowa, October 1, 1893.

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PROFESSORS, INSTRUCTORS, OFFICERS, ETC.

The following is a schedule of the name of professors, officers, and other employés of the University, together with the salaries and pay of each for the year 1892-93:

COLLEGIATE DEPARTMENT.

COLLEGIATE DEFAITMENT.	
Amos N. Currier, A. M., LL. D	Deum.
Samuel Calvin, A. M., Ph. D	2,200.00
THOMAS H. McBride, A. M	2,200.00
L. W. Andrews, Ph. D	2,200.00
CHARLES D. JAMESON, C. E	3,000.00
WILLIAM R. PERKINS, A. M	2,000.00
G. T. W. PATRICK, A. M. PH. D	2,000.00
CHARLES B. WILSON, A. M	1,800.00
L. G. Weld, A. M Professor of Mathematics.	
Andrew A. Veblen, A. M	1,800.00
CHARLES C. NUTTING, A. M	1,800.00
ISAAC A. LOOS, A. M	1,800.00
JOSEPH J. McConnell, A. M	1,800.00

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EDWARD E. HALE, JR., A. M., Ph. D	1,800.00
LEONA A. CALL, A. M	1,200.00
CHARLES S. Magowan, A. M., C. E	1,500.00
OSCAR W. ANTHONY, M. S	900.00
PERCY H. WALKER	900.00
THEODORE L. NEFF, A. M	1,000.00
Albert E. Egge, A. M., Ph. D	900.00
Gilbert L. Houser, B. S	700.00
BOHUMIL SHIMEK, C. E	900.00
FRED B. STURM, A. B Instructor in German.	900.00
ALBERT L. ARNER, L. B	900.00
SARAH F. LOUGHRIDGE, A. M	450.00
PAULINE K. PARTRIDGE Instructor in Elecution.	300.00
BARTHINIUS L. WICK, Ph. B Fellow in History.	300.00
GEO. W. READ, 1st Lieut. 5th U. S. Cavalry, for two terms Professor of Military Science and Tactics.	400.00
HENRY F. WICKHAM	600.00
LAW DEPARTMENT,	
EMLIN McClain, A. M., LL. D	\$ 3,250.00
SAMUEL HAYES, M. S., LL. B	2,000.00
MARTIN J. WADE, LL. B	2,000.00
James A. Rohbach, A. M	1,200.00

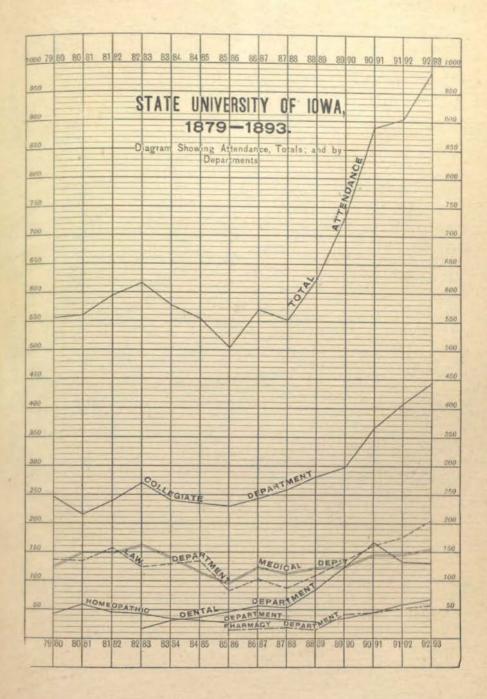
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JUDGE G. G. WRIGHT, LL. D	200.00
La Vega G. Kinne, LL. D	200.00
GIFFORD S. ROBINSON, LL. B	100.00
WILLIAM G. HAMMOND, LL. B Lecturer on the History of Common Law.	100.00
Librarian and Assistants	300.00
MEDICAL DEPARTMENT.	
JOHN C. SHRADER, A. M., M. D	950.00 Medical
W. D. MIDDLETON, A. M., M. D	950.00
James R. Guthrie, A. M., M. D	950.00
LAWRENCE W. LITTIG, A. M., M. D., M. R. C. S	950.00 icine.
Woods Hutchinson, A. M., M. D	950.00
CHARLES S. CHASE, B. S., M. D	950.00
ELBERT W. ROCKWOOD, A. M Professor of Chemistry and Toxicology.	950.00
J. W. HARRIMAN, M. D Demonstrator of Anatomy.	600,00
A. C. Peters, M. D Lecturer on Laryngology and Rhinology, and Secretary of the Faculty.	300.00 Medical
GERSHOM H. HILL, A. M., M. D	150.00
Lawrence W. Littig	100.00
James W. Dalby, A. M., M. D	350.00
Samuel Calvin, A. M., Ph. D	200.00
E. H. WILLIAMS, M. D	775.00

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FRANK S. ABY, M. S.	Assistant Professor of Histology.	775.00
Assistant to Dr. H	Librarian	20.00 15.00 20.00
W. E. BARLOW, A. B.	Demonstrator of Chemistry.	425.00
FRANK CARROLL	ssistant in Chemical Laboratory.	75.00
ном	MEOPATHIC MEDICAL DEPARTMENT.	
GEORGE ROYAL, M. D. Professo	r of Materia Medica and Therapeutics.	950.00
Wilmot H. Dickinson Professor of Theor	N. M. D y and Practice and Clinical Medicine, and D	1,000.00 ean.
James G. Gilchrist, Professor of Surgery	A. M., M. D	1,050.00 Homeo-
CHARLES H. COGSWEI	r of Obstetrics and Diseases of Children.	585.00
FRANK J. NEWBERRY, Professor	, M. D., O. ET A. CHIRof Ophthalmology, Otology, and Pædology.	200 00
Hospital Assistant		100.00
	DENTAL DEPARTMENT.	
ALFRED O. HUNT, D. Professor of Metallur	D S	3,500.00 aculty.
WILLIAM O. KULP, D. Professor	D. S	1,200.00
	L. D., D. D. S	1,200.00
ED. BUMGARDNER, A. De	M., M. D., D. D. S	650,00
W. H. DEFORD, A. M.	., M. D., D. D. Scturer on Pathology and Hygiene.	400.00
	M. D., D. D. S	300.00
A. C. Peters, M. D	Lecturer on Regional Anatomy.	100.00
Special Dental Leo	cturers	100.00
REBECCA THOMAS, Cle	erk	350.00
J. W. HARRIMAN, M.	Demonstrator of Anatomy.	300.00

PHARMACY DEPARTMENT.

PHARMACY DEPARTMENT.	
EMIL E. BOERNER, PH. G	2,000.00
Professor of Pharmacy, Director of the Pharmaceutical Laboratory and of the Faculty.	nd Dean
Charles S. Chase, B. S., M. D	200.00
THOMAS H. McBride, A. M	200.00
Pharmacy Janitor	130.00
Assistant to Professor of Pharmacy	100.00
OFFICERS AND ASSISTANTS.	
CHARLES A. SCHAEFFER, President	5,000.00
WILLIAM J. HADDOCK, Secretary	2,000.00
J. W. Rich, Librarian	1,200.00
LOVELL SWISHER, Treasurer	800.00
EMMA HADDOCK, Clerk	500.00
JULIA M. CRAWFORD, Stenographer	325.00
BERTHA G. RIDGWAY, Assistant Librarian	300.00
GERTRUDE HOWELL, Organist in Chapel	25.00
T. A. DONOHOE, Assistant Law Librarian	25.00
JOSEPH MEKOTA, Assistant Law Librarian	25.00
BAND INSTRUCTOR	150.00
JANITORS AND EMPLOYEES.	
George Tomlin, General Janitor	480.00
WILLIAM GREEN, Medical Janitor	480.00
E. A. SPRACKER, Dental Janitor	150.00
WILLIAM HERRING, Special Chemical Janitor	150.00
WILLIAM BARRY, Day Fireman	
JAMES BARRY, Night Fireman and Watenman	
MARY J. BOLTON, Sweeping and Scrubbing	
ALICE SENTMAN, Sweeping and Scrubbing	

Firemen are paid \$1.50 for twelve hours work; the sweeping and scrubbing women are paid at the rate of \$17.00 for thirty days; laborers on such work are paid at usual wages per day or hour.



REPORT OF THE PRESIDENT.

PRESIDENT'S REPORT.

To the Honorable, the Board of Regents of the State University of Iowa:

Gentlemen-I have the honor to submit herewith my biennial report for the period from June 30, 1891, to June 30, 1893.

The number of students in attendance is shown in the following table, the enrollment of 1890-91 being given for the purpose of comparison:

SUMMARY OF ENROLLMENT.

CLASSES.	1890-1891.	1891-1892.	1892-1898.
COLLEGIATE DEPARTMENT.			
Resident Graduates Seniors Juniors Sophomores Freshmen Special Students	24 58 46 77 117 44	27 52 51 63 142 72	39 50 58 94 140 67
Total	366	407	443
LAW DEPARTMENT.			
SeniorsJuniors	52 109	73 101	69 137
Total	161	174	206
MEDICAL DEPARTMENT.			
Seniors Juniors Freshmen Special Students	27 49 68	26 47 69 2	40 45 69
Total	144	144	154

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SUMMARY OF ENROLLMENT-CONTINUED.

CLASSES.	1890-1891.	1891-1892.	1892-1893.
HOMEOPATHIC MEDICAL DEPARTMENT.			
Post graduates	17 9 18	1 3 27 26	23 16 24 3
Total	44	57	66
DENTAL DEPARTMENT.			
Post graduates	94	68 3 62 1	1 8 44 65 10 1
Total	169	134	129
PHARMACY DEPARTMENT.			
SeniorsJuniors		7 44	49
Total	44	51	53
Grand total Deduct for names counted twice	928	967 63	1051 64
Total numer of students	890	904	987

During the same period degrees have been conferred as follows:

DEGREES CONFERRED.

CLASSES.	1890-1891.	1891-1892.	1892-1893.
COLLEGIATE DEPARTMENT.		- 7	
Bachelor of Arts Bachelor of Philosophy Bachelor of Science	12 18 11 9	11 26 9	11 26 8
Civil Engineer		4	5
Total	50	50	50

DEGREES CONFERRED-CONTINUED.

CLASSES.	1890-1891.	1891-1892.	1892-1898.
LAW DEPARTMENT.			
Bachelor of Laws	51	78	64
MEDICAL DEPARTMENT.			
Doctor of Medicine	21	25	39
HOMEOPATHIC MEDICAL DEPARTMENT.		-	
Ductor of Medicine	17	3	23
DENTAL DEPARTMENT.			
Doctor of Dental Surgery	58	57	6
PHARMACY DEPARTMENT			
Graduate in Pharmacy	2	4	4
Total	199	212	186

The total number of degrees conferred upon graduates since the foundation of the university is 3,725.

COLLEGIATE DEPARTMENT.

In this department there has been a steady advance during the two years, not only in the matter of attendance, but more particularly in the improvement in the character of the work done. The members of the faculty, however, have been seriously hampered by the fact that the department has about reached the limit of capacity. Almost all of our recitation and lecture rooms have been uncomfortably crowded during the past year, and moreover, many of the classes are so large as to make it difficult to give them the proper instruction without subdividing them into sections, which, however, is impossible without increasing the instructing force. The professor of pedagogy and the professor of Greek have for the past two years been accommodated in rooms rented by the university in the Y. M. C. A. building. The professor of zoology has no lecture room whatever. At times he has held his classes in the corner of the museum; in the unpacking room, and occasionally he has been able to borrow the use of a lecture room from some other department in the same building; in the

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latter case, however, always at great inconvenience to both parties concerned.

In spite of these drawbacks, I am happy to report that the members of the faculty have without exception labored most faithfully and done their full share towards the success of the university. While manfully doing their duty the great drawbacks under which they are working are only too apparent, and as a consequence, frequent appeals have been addressed to you for relief. These appeals may be summed up as follows: first, for more instructors; second, more apparatus; third, more books.

No more enthusiastic and devoted body of men can be found than the faculty of this university, and I respectfully submit that the state is not utilizing them to the best advantage by requiring them to give instruction to classes under the present conditions. Each professor has devoted himself to some special branch and is an acknowledged master, and it certainly is poor policy to compel him to exhaust himself in a large amount of elementary instruction, when with the assistance of an instructor, he could be relieved of at least a portion of such work, and thereby be enabled to devote himself to the instruction of more advanced students – the true work of the university.

For some years past several series of university publications have been issued embodying the work of the various professors, and in some cases of advanced students, such as the Natural History Bulletin, Historical Monographs, the Transit and the Law Bulletin. These publications have in all cases been valuable contributions to science and literature, and have been of great advantage as well to the professors and students who have undertaken the investigations therein published, as also to the reputation of the university itself. It is a matter of great regret that more cannot be done in this direction. Unfortunately however, within the last year, these publications have been very considerably reduced in number on account of the fact that the income of the university has not increased as rapidly as has the number of students, and it has therefore been necessary to expend a larger proportion of the funds in providing additional instruction. If more funds were available, the series of publications could be extended, as the professors of philosophy and political science are both exceedingly desirons of publishing periodical monographs on charities and corrections, and on the various topics of political science. What has been done already in this line certainly reflects great credit upon the university and upon the state, and it is to be hoped that every encouragement will

be offered for the continuance of such publications. At your meeting in June the professor in history announced that three monographs on various topics connected with the history of the state of Iowa had been prepared by a recent graduate of the university and were ready for publication. There were, however, no funds available for such purpose.

Notwithstanding the financial panic through which we have been passing this summer, there is every reason to expect that the number of students in the collegiate department during the coming year will be even greater than it has been during the past year, and the embarrassment will be even greater than it has been unless a considerable number of instructors is added to our force. On this point I beg to present the following quotation from the last annual report of Professor Calvin:

"Within the last two or three years the universities of the neighboring states have broadened out their courses in geology and biology, and divided among a number of specialists the work that had previously been done in these subjects by a single chair. We must prepare to keep pace with these institutions or be content to lag in the rear. I assume that the alternative of falling behind will not be seriously entertained, and I therefore urge that in preparing the schedule of appropriations to be asked for from the next legislature, provision for supplying this chair with certain absolute necessities be kept in view.

First, we must have more room. For laboratories in animal biology and geology, we need the entire first floor of the science building, together with a large share of the basement, which is needed for storage and certain kinds of laboratory work.

Second, we need more apparatus and working material. We have no instruments of precision for biological and physiological investigation, nor have we what we need for advanced work in geology. I need not trouble you with a list of the articles we positively must have to keep with the progress of scientific instruction, but will say that an appropriation of at least \$4,000 for the next biennial period should be made to meet the more urgent and immediate necessities.

Third, we need more books. We are seriously handicapped in our efforts to keep up with the progress of investigation by lack of the literature of the subjects with which we are directly concerned. For the reference library in geology and animal biology we shall need for the next two years, \$2,000.

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Fourth, we need more men. To extend the work represented by my chair, as has been done so effectively and with such satisfactory results in other state institutions, it will be necessary either to create and fill one or more new chairs, or to add specialists with the rank of assistant professor to take certain portions of the work."

The foregoing, you must admit, is not an extravagant appeal, but a fair statement of the condition of affairs, and is reflected in a number of other reports, extracts from several of which you will find appended to this report. For the successful and satisfactory prosecution of the work of this department, besides what is indicated in the above extract, we need an additional instructor or assistant professor in history; an assistant in philosophy; an additional instructor in physics; an assistant professor in political science; an instructor in free hand drawing; and an additional instructor in English. The foregoing additions to our instructing force are in my opinion without exception, absolutely necessary to prevent us from falling behind in our work.

LAW DEPARTMENT.

The policy which you have adopted in this department, of requiring pretty much all of the work to be done by resident professors, men whose entire time is devoted to the work of the department, and whose interests are consequently not divided between the work of education and the cares of a private practice, has been abundantly proved to be a wise one.

The number of students in this department has rapidly increased, and the character of the instruction has been materially improved. In consequence of this increase in numbers, certain re-arrangements in the rooms occupied by the law classes have been rendered necessary, whereby the space devoted to the rapidly growing library has been very much enlarged, but here too, we have about reached the limit. One of the lecture rooms having been taken for a reading room attached to the library all of the work of instruction must necessarily be done in a single room, resulting in great inconvenience to both faculty and students. Notwithstanding this, the instruction given has been of a very high order, and the great success of the department is evidenced by the large number of its graduates who occupy positions of eminence on the bench and at the bar, not only in Iowa but in many of the states of the northwest. In view of the growth of the department, it will undoubtedly be necessary to take some measures for the enlargement of its quarters within the next year or two, and at the same time an increase in the force of instructors must be provided for.

MEDICAL DEPARTMENT.

As shown by the table of enrollment, the attendance in this department has increased but slightly, nevertheless great improvements have been made in the kind and character of the instruction. especially in the large amount of laboratory work now required in the curriculum. For example the number of hours devoted to work in the chemical laboratory is from two to three times as great as it was three years ago, and instruction is now given in toxicology and physiological chemistry, subjects which were, but a few years ago, very lightly touched on. The addition of two members to the faculty, namely: a professor of histology and a professor of bacteriology and biology, together with the equipment of two laboratories in charge of these gentlemen, have resulted in a great gain to the course. While improvements have thus been going on, nevertheless there are many things that we yet lack, and I would especially note four matters, which seem to me to be particularly desirable.

First, to carry out the plan of medical education, it is very desirable that as far as possible the members of the faculty should reside at the seat of the university, and should receive sufficient salary so that they will not be dependent upon local practice for their support. In other words, we must have resident professors whose first object is the welfare of the medical school. These men would of course be specialists in particular branches, and would undoubtedly be able to very materially increase their resources as consulting physicians in their specialties. Such consulting practice would, however, not occupy very much time and would not interfere with a close attention to their duties as medical professors. I most heartily recommend that this policy be adopted and that two or three resident professors be appointed in this department. As you are aware, the same policy has been adopted in the law and in the dental departments and the result has been in both cases most satisfactory.

Second, the medical department needs a hospital building, and on this point I desire to repeat what was said on this subject in my last biennial report. If the university is to maintain a medical department, that department ought to be able to furnish its students with means and facilities for acquiring as good a medical education as can be obtained elsewhere. The state ought to be FB2

supplied with the very best sort of medical skill. It is not sufficient to train our students by means of lectures and practical work in the various laboratories. They must have frequent opportunities of studying such cases as are found in large hospitals. In this respect our facilities are deficient, and the medical course can never be entirely satisfactory until the department is supplied with a wellequipped modern hospital. This has already been pointed out and appeals have been made to the last two General Assemblies. And the need becomes more pressing each year. It should be remembered that the erection of a hospital at the expense of the state is a matter which should not be regarded as an expenditure of public funds merely for the sake of the university. Such a hospital would be a place to which could be brought the sick and maimed from all parts of the state; a place where such as are unable to incur the expenses should receive the most skillful medical and surgical treatment without cost. The money spent in the erection and maintenance of a hospital would be returned to the people many times over in the saving of valuable lives and in the restoring to health of many of the citizens who, from lack of means, are unable to obtain proper medical treatment. In spite of difficulties the medical department has already gained an enviable reputation in this respect. But with the proper facilities it would be possible very materially to enlarge this field of usefulness-to do many more acts of mercy to the unfortunate victims of disease and accident.

Third, it is earnestly recommended that measures be taken to increase the length of the term of the medical department as rapidly as possible. The best medical colleges of the United States now require for graduation three courses of lectures of nine months each, and it is time for the University of Iowa to take measures looking in the same direction. At present so much work is crowded into six months that the students are prevented from doing full justice to the work or to themselves, and in my opinion a very material gain will result from the extension of the course.

Fourth, I earnestly recommend that such measures be taken as will secure a change in the law regulating the disposition of the unclaimed bodies of persons who die at state institutions, in order that a sufficient supply of anatomical material may be obtained for the medical department. As the law now stands it is impossible for us to obtain the required amount, and the result is a very serious embarrassment to the faculty. The state board of medical examiners requires that every graduate in medicine shall have taken a

certain amount of dissection, and the safety of the community demands that the practicing physican and surgeon should be thoroughly familiar with the anatomical structure of the human body. But, owing to the imperfections of the law on the subject, the amount of material obtained is far less than the supply which should annually be used in the department. I therefore respectfully suggest that measures be taken to remedy this serious defect.

HOMEOPATRIC MEDICAL DEPARTMENT.

The enrollment in this department has shown a very healthy and steady growth; so much so that it was with great difficulty that the classes could be accommodated during the past year, and it is a serious question what can be done, should there be any considerable increase in the numbers during the coming year. A single room serves for recitation and lecture room, as also for the clinics, and withal is so small that during the last session when every seat was full, each student had but 121 cubic feet of air to breathe, with no possibility of a change during the hour, except such ventilation as was possible by opening doors or windows.

The hospital attached to the department and located in the same building as the lecture room, is provided with twelve beds, and it is a very rare event that any of these are unoccupied.

This department was established by the Seventeenth General Assembly. Subsequent assemblies have failed to extend to it the support which was needed, but it is earnestly hoped that it will be no longer neglected. A substantial and more commodious building is absolutely necessary.

DENTAL DEPARTMENT.

In this department alone there has been a decrease in the number of students during the biennial period. This, however, is the result of an increase in the requirements, both in the lengthening of the course from two to three years, and in the higher standard required for admission. As a result of the appropriation made by the Twenty-fourth General Assembly, very substantial and satisfactory improvements have been made in the equipment. There is, however, great need of more demonstrators in the various departments of practical work. The quarters assigned to this department are of very limited extent, and by reason of the necessary occupation of the basement, in a very unsatisfactory condition. A substantial, but not necessarily expensive building should be provided for the department at an early day.

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PHARMACY DEPARTMENT.

Of the six departments of the university, the pharmacy department is the only one which is provided with sufficiently ample and satisfactory quarters. The rooms assigned to it, on the upper floor of the new chemical laboratory building are in every way adapted to its purposes, and so far as working space and general convenience are concerned, it is undoubtedly unsurpassed by any pharmacy laboratory in the country. There is still, however, some need of additions to the equipment, and one or two additional demonstrators should be added to the instructing force.

LIBRARY.

So far as the means at hand have permitted, the growth of the library has been satisfactory, but has not been as rapid as could be desired. Certain improvements, however, have been made in the general disposition, classification, and arrangement of the book room, and it is very evident that the library is being used by the students of the university more and more each year. We need, however, many books, which, owing to insufficient appropriations, we have as yet been unable to procure. In order to-keep pace with the general growth of the university, and with the improvements in science, literature, and in all the branches of study, it is to be hoped that we shall soon be in a condition to expend not less than \$10,000 per annum in the purchase of books alone. Although it can hardly be claimed that our library has overgrown the space assigned to it, nevertheless it seems to me very desirable that a new building should be provided for the library as soon as possible. At present the library occupies the second story of the north building, immediately over the physical laboratories. Should, at any time, a fire break out below, the whole library might be destroyed, and almost an irreparable loss precipitated upon us. I therefore venture to suggest that you appeal to the Twenty-fifth General Assembly for a sufficient appropriation to erect a fire-proof building for the sole accommodation of the university library.

MUSEUM.

The astonishing development of the various collections contained in the natural history museum must be a source of gratification to all friends of the university. In building up these collections, the curator and his assistant have shown a praiseworthy ambition and untiring industry. During recent years a large

number of expeditions have been sent into the field in various quarters, most of which have had for their sole object, the collection of specimens for the museum. For the details of this subject, I beg to refer you to the report of the curator hereto appended. Within the last three years, besides the considerable number of specimens received from individual donors, large collections have been received as follows, namely: the collection donated by D. H. Talbot, of Sioux City, consisting of many thousand specimens of birds, mammals, minerals, etc.; a consignment of seven cases containing over 30,000 specimens of dried plants contributed by the British Museum to the university herbarium; several cases of specimens received from Mr. Frank Russell, now in the far north on his way to the Arctic regions; a carload of specimens, principally marine, collected by the Bahama expedition of the present summer; several thousand specimens collected in Nicaragua by Instructor Shimek and Mr. C. L. Smith. In short, we have acquired within recent years a large and very valuable lot of material, and to such an extent that we have no longer space for its proper display. And without that, it can be of no use whatever. It is very evident, therefore, that we must have more room for our museum, and in view of the great value of the material which we already have, and are likely to receive in the future, I beg to suggest as one of our urgent needs, a fire-proof museum building.

NEEDS OF THE UNIVERSITY.

As has been already shown, the university is sadly in need of more room in consequence of overcrowding in every department, except that of pharmacy. For its legitimate purposes, the university needs to-day the following buildings:

- 1. A building for the collegiate department: We need more room and larger rooms for the work of instruction. The classes in this department are at present widely scattered. The south building, owing to the very cheap manner of its construction, will soon be in an almost uninhabitable condition, and it would be useless to attempt to put any extensive repairs upon it.
- 2. A building for the law department: As already stated, the quarters assigned to this department are already inadequate, and additional room must be provided in the near future.
 - 3. A hospital for the medical department.
- 4. A hospital and building for the homeopathic medical department,

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- A building for the accommodation of the dental department.
 - 6. A museum building.
 - 7. A library building.
- 8. A building to be used as a shop, and for the various laboratories necessary for the instruction of the students in the civil engineering and electrical engineering courses.
- 9. A gymnasium: It is true that a small gymnasium has been provided in the Y. M. C. A. building, but this is not sufficiently commodious for all the students of the university, and we should have a gymnasium of much greater extent, in charge of a regularly appointed professor of physical culture. The gymnasium might also be used as a drill hall or armory during the winter term. The room now used for this purpose is altogether too small for any instruction except in the manual of arms.
- 10. A university hall or assembly room: At present the university has no hall or room of any description in which the students of all departments can be brought together. It is possible that the gymnasium might be used for this purpose by removing the apparatus.

The university also needs an athletic field. The state has never yet given the university any ground for any purpose whatever. The grounds which it does control are none of them available for athletics. Within the last year a movement has been inaugurated by the alumni and by the students, to raise a fund for the purchase of an athletic field, and the sum of \$2,500 has already been subscribed. But this sum is not sufficient, and it is hoped that an appropriation may be obtained wherewith to supplement the sum thus to be secured.

It will undoubtedly be urged, if the university asks for the foregoing buildings, that its demands are exorbitant, but I am confident that this criticism will not be made by any one who is acquainted with the facts. The university exists by virtue of an act of the first legislature, which was passed in February, 1847. As a matter of fact, it began its real work in 1860. Thirty-three years have elapsed since that date, and in the meantime, the state of Iowa has spent in the erection of buildings for the university just \$200,000. The result is seen in the facts already stated; on the other hand, let me remind you that the state of Missouri has spent in the erection of buildings for the state university the sum of \$650,000; Michigan, for the same purpose, including the cost of grounds, has

spent \$857,000; Wisconsin, \$790,000; Minnesota, \$609,000; Kansas, \$504,000. The University of Chicago, although not yet two years old, has spent for buildings alone, \$1,250,000. Contrast these sums with the \$200,000 spent by Iowa in thirty-three years, and it is not surprising that our university, having now one thousand students, is cramped for room.

In addition to the foregoing buildings, the university is in immediate need of considerable increase in its resources for equipment and general expenditures. Its income ought to be double what it is at present. In the last biennial report it was shown that the rate of expenditure per student per annum was considerably below that of any one of the institutions with which it is usually ranked. The present annual income is, in round numbers, \$125,000. The annual income of some other institutions of the first rank is shown in the following table:

ANNUAL INCOME.

University of Michigan	8400 000
University of California	970 000
Cornell University	500,000
Yale University	599 000
University of Wisconsin.	970,000
Harvard University	987 000
Columbia College	850,000
Massachusetts Institute of Technology	907,000
- Accumotogy	207,000

Concerning the income of the University of Missouri, President Jesse makes the following statement: "It is difficult to state the exact annual income. In the biennial period ending December 31, 1892, the university received from the legislature of the state by direct appropriation for all departments and for all purposes \$997,518.23, and from all other sources \$186,466.67, making a total of \$1,183,984.90. But the circumstances were wholly extraordinary. For the biennial period beginning January 1, 1893, the legislature has given the university for all departments and for all purposes \$294,000, and the estimated income from all other sources is about \$286,000. But again the circumstances have been extraordinary."

It need not be supposed that the doubling of the income of the university would double the expense per student, since judging from the experience of other universities, any considerable increase in the equipment would very quickly result in a large increase in the attendance. As evidence that our demands are not exorbitant in asking for such a large increase in our equipment and resources, I beg leave to call your attention to the following extracts:

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On the 9th of October, 1892, President Henry Wade Rogers of the Northwestern University addressed the Rock River Conference as follows: "The Northwestern University is the largest and richest educational institution which Methodists possess any where in the world. Its property, including the theological school, amounts to over \$4,000,000.

* * * * * * The fact that the university is in this prosperous condition furnishes the reason why I am present to make an appeal to the conference, for while the university has more money than any similar institution of Methodism, it is relatively poor. As compared with the representative institutions of Presbyterianism, Congregationalism, Episcopalianism, and Unitarianism, it does not have half the amount needed to do its work. It is a modest estimate to say that it needs for immediate use, \$3,000,000 or \$4,000,000 more."

In the last annual report of Yale University, President Dwight says: "It is a matter of serious importance to the well-being of the university in the near future, that its annual income should be largely increased.

* * * * If even a sum as large as one or two million dollars could be added to the fund for the increase of the number of teachers and increase of salaries, the pressing demands of the early future would not be more than satisfied. Every gift made to this end will realize the best results in the way of education, and will become a blessing for all the generations of young men who shall have their training here in the coming time."

The following extract from an address of President Pepper, of the University of Pennsylvania, shows what that institution has spent for its medical department alone: "Twenty-five years ago an American medical education meant the attendance upon two sessions of five or six months' duration, the instruction consisting of seven courses of didactic lectures, which were repeated annually, and a limited number of medical and surgical clinics. The faculty comprised from four to seven professors, all engaged in the practice of their profession, and expecting to receive the larger share of their remuneration from the widespread advertisement of their prominent position and from their cordial relations with their gradnates, who, indeed may well have reciprocated the indulgent favors shown them at their final examinations. The only equipment necessary was a building large enough to hold the swelling classesif possible, it should be conveniently accessible to a hospital. Laboratories, there were none, except the dissecting room. The apparatus was most meager; and a library would have been regarded as a needless luxury.

"It will give some idea of the strenuous efforts that have been made to equip this one branch of professional education when I state that when the University of Pennsylvania inaugurates an obligatory four-year course of medical study in 1893, there will have been expended for the requisite buildings (including the medical hall, the hospital, the chemical laboratory, the laboratory of hygiene, the Wistar Institute of Anatomy, and laboratory of biology), over \$850,000, without counting the value of ground and equipment, which could not be estimated at less than \$250,000; that the annual cost of maintenance, without including a single professional salary, will amount to \$115,000, and that the staff of instructors will number between eighty-five and ninety."

If a sufficient sum of money is to be raised by this university, it would seem that the wisest policy would be to adopt the plan already followed by nearly all the states which maintain universities, namely: to levy a special tax for that purpose. The University of Michigan receives from the state the proceeds of a tax of one-sixth of a mill; the University of Wisconsin, one-eighth plus one-tenth of a mill; the University of Ohio, one-twentieth of a mill; the University of Minnesota, three-eighths of a mill; the University of Minnesota, three-twentieths of a mill; the University of California, one-tenth of a mill; the University of Kansas, a fraction of a mill sufficient to net \$75,000 per annum.

In one respect we certainly can congratulate ourselves, namely: that the sources of embarrassment of the university are not the result of any lack of activity, but rather the result of the rapid growth of the university. Had the institution remained where it was ten years ago, its current expenses would not have materially increased. That it needs so much more to-day than then, is but the normal result of its growth and development.

In a little more than three years the State University of Iowa will celebrate the semi-centennial anniversary of the passage of the act of the legislature, in accordance with which it was founded. Is it not high time to equip the university in such a manner as is befitting the honor and credit of the state, so that on that occasion she may not be ashamed to compare it with other, hitherto, more fortunate state universities?

Very respectfully submitted,
CHARLES A. SCHAEFFER.

APPENDIX TO PRESIDENT'S REPORT.

APPENDIX TO PRESIDENT'S REPORT.

SOME EXTRACTS FROM PROFESSORS' REPORTS.

REPORT OF CHARLES C. NUTTING, PROFESSOR OF ZOOLOGY, ON UNIVERSITY EXPEDITIONS.

One of the most marked indications of the broadening of the activities of the university has been the encouragement given to the explorations for biological research. Few persons, even among those most interested in the educational system of Iowa, are aware of the extent and scope of the explorations undertaken under the auspices of the State University, in the interests of its department of natural science, more particularly the museum of natural history.

It will doubtless be a surprise to our friends to learn that the Bahama expedition, which is the main object of this report, has been preceded by no less than fourteen expeditions, purely in the interest of biological science, each of which has received more or less of aid and encouragement from the university authorities, and added its quota to the natural history collections, and to our knowledge of the organic life found in the various regions visited.

In order to show the extent and scope of these explorations during the last six years, the following chronological list of expeditions is given as preliminary to the account of the Bahama expedition:

1887.—Explorations in New Mexico and northeastern Arizona, by Mr. H. F. Wickham, the main object being the study and collecting of entomological specimens.

1888.—Entomological explorations in New Mexico, Arizona, Colorado river and coast of southern California,—Mr. H. F. Wickham.

1888.—Expedition to the Bahama Islands for the purpose of collecting and studying birds, and the marine animals of that region,—C. C. Nutting and wife.

1888.—A botanical and geological expedition to California and the "Bad Lands" by Professors Calvin and McBride. Botanical collections were the main objects of the trip, although many valuable fossils were collected.

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1888.—Explorations in the mountains and on the sea coast of California, resulting in the collection of mammals, birds, and marine invertebrates,—Bayard Elliott, Gilman Drew and William Drew.

1889.—Entomological explorations in Colorado, Wyoming, Idaho, Oregon, Washington, Vancouver Island, Montana and Dakota,—Mr. H. F. Wickham.

1890.—Expedition to the Bay of Fundy for the study and collecting of marine animals, birds and seals. Marine dredging was carried on to a considerable extent and resulted in large accessions to the museum,—Professors Calvin and Nutting.

1891.—Explorations in Alaska and British Columbia by Mr. Wickham, resulting in valuable collections in entomology and ornithology.

1891.—Collecting trip to the Mountains of Tennessee for botanical and malacological specimens,—Mr. B. Shimek.

1891.—Expedition to the northwest provinces of British America, by Messrs. Smith and Russell and Prof. Nutting. A zoological exploration of the lower Saskatchewan region resulted in large collections, especially in ornithology.

1891.—Prof. McBride was granted leave of absence to study the methods in vogue in the botanical and bacteriological laboratories in France and Germany, and to purchase equipment for the botanical laboratory of our university.

1892.—Entomological explorations in Louisiana and southern Texas, —Mr. Wickham.

1892.—Zoological explorations in Oregon and British Columbia, resulting in considerable accessions to our collection of marine invertebrates,—Messrs. Frank Russell and A. G. Smith.

1892-3.—Explorations in the far north, Mr. Frank Russell. While in the Winnepeg country, in 1891, the curator of the museum met Roderick Ross Mac Farlane, Esq., chief factor of the Hudson Bay Company, a well known naturalist, who has spent nearly thirty years in the Arctic regions in the service of the company. This gentleman very strongly urged upon the curator the desirability of a thorough zoological exploration of the McKenzie river and Great Slave Lake regions, and the necessity of prompt action, particularly in view of the rapid extermination of the musk ox.

He was confident that such accessions could be secured from the all-powerful Hudson's Bay Company; that the expense of scientific expedition to these little known regions would be moderate.

This matter having been placed before the president and executive committee of the board of regents, it was decided to undertake the exploration, and to send Mr. Frank Russell, who volunteered for the service, to the far north in the interests of the university.

President Schaeffer secured from Sir Donald Smith, governor of the Hudson's Bay Company, the hearty support of that corporation, a promise, which has been faithfully kept.

Mr. Russell left Winnipeg for the Saskatchewan river, in August, 1892. He spent the winter in that region, becoming accustomed to the use of snow shoes and dog sledges. He sent from there a collection of over four hundred specimens, which arrived in excellent condition, accompanied by a full and carefully prepared report containing a great amount of information

concerning the habits, legends, religion, etc., of the Swampy Cree Indians, and the natural history of the animals of that region.

In the spring of 1893, Mr. Russell traveled over four hundred miles on snow shoes, to Winnipeg, where he received a box containing about \$250.00 worth of additional equipment and comforts, donated by the faculty and students of the university, and gathered together his outfit for the serious work before him. The Canadian Pacific Rallroad kindly furnished passes to Mr. Russell, thus saving a very considerable expense, as he desired to go from Winnipeg to Fort McLeod, at the foothills of the Rocky Mountains. Here he collected till the end of April, when he started down the Athabasea river, in a "York boat," with a number of Hudson's Bay officers, reaching Fort Chippewayan after a journey involving great exposure and peril. He collected for some time on the shores of Lake Athabasca, living alone in a small "A" tent. This collection, of birds chiefly, has been received in admirable condition, accompanied by a full report. Mr. Russell then continued his journey north, reaching Fort Smith, June 20th, and Fort Rae, on Great Slave Lake, July 12th. The last word from him is contained in a letter dated July 15th, in which he states that he is about to start for Great Bear Lake, in company with the Great Bear chiefs. It is Mr. Russell's plan to winter this year near Great Bear Lake, where he will form a permanent camp and stock it with game and fish before the winter sets in. During the winter he will make a determined effort to secure specmens of the nearly extinct musk ox, as well as reindeer and all other animals of that region.

In the spring of 1894, he intends to reach the shores of the Polar Sea, in order to collect the sea birds that breed in that region in the early summer. As cold weather approaches, he intends to make his way southward and to civilization, reaching home in the winter of 1894-5.

Mr. Russell has abundantly demonstrated his good judgment, pluck and endurance, and the curator has confidence in his bringing his important explorations to a successful termination.

1893.—Bahama Expedition. Biological work in an inland university is carried on at a certain disadvantage on account of the remoteness of salt water with its multitude of interesting forms of animal and vegetable life, most of which have no representation in fresh water. In the past a number of expeditions have gone from the university to the sea shore for the purpose of collecting and preserving marine animals for use in the laboratory and class room, and thus give students a chance to examine these forms. Although a great deal has undoubtedly been gained in this way, those in charge of the geological work felt that still more was possible.

When Professor Nutting went to the Bahamas in 1888, he secured all the information possible in regard to the probable cost of chartering a suitable vessel for an expedition including about twenty persons to be gone about three months on a cruise in the West Indies for practical study of animal life. The information thus secured proved to be the basis on which was organized and successfully carried out an entirely new departure on educational lines, i.e., the Bahama biological expedition from the State University of Iowa which involved the chartering and fitting up of a vessel as a floating biological laboratory and giving a number of students an unprecedented opportunity for three months study in the West Indian region, the richest field for marine work in the world.

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The hold is dry and roomy with sixty feet between bulk heads and twenty-five feet wide.

During the winter and spring of 1892-93 the plans for the equipment of the vessel and arrangement of space were matured, an extensive correspondence with the most experienced authorities in marine dredging, including Alexander Agassiz and Mr. Benedict, naturalist in charge of the U. S. Fish Commission steamer "Albatross," was carried on. Professor Weld planued the dredging equipment with great care, with the result that the expedition attained marked success in deep water dredging at a minimum expense.

The president of the university secured the aid of the department of state at Washington, through which the British and Spanish authorities agreed to grant every reasonable concession to further the object of the expedition.

Nearly all of the dredges, trawls, etc., used on the cruise were made by students in the engineering department at the mere cost of material.

Early in April, 1893, Professor Nutting left for Baltimore, in order to superintend the fitting up of the vessel and purchase of stores, and had everything in readiness for the arrival of the party on May 5th.

The Baltimore & Ohio, and the Rock Island Railroads allowed very low special rates for transportation to Baltimore and return.

A really good laboratory was fitted up in the hold, to which light was admitted by long sky-lights. Both dissecting and compound microscopes were provided, with their necessary accessories and a library of marine zoological works, including the Challenger reports, was supplied by the university, having been insured by the party.

On deck was placed the hoisting machine, worked by hand, with three hundred fathoms of wire rope.

Three good boats were provided which were large enough to hold the entire party in case of necessity.

The party sailed from Baltimore on the afternoon of May 5th. The passage to our first stopping place at Egg Island, Bahamas, was a rather rough one of seven days. Most of the party were disabled by sea sickness, but the time was utilized in covering the dredges with canvas and in studying such forms of life as could be secured with dip nets while under way. Quantities of sea weed were taken on board and found to contain a host of minute but interesting forms of animal life.

On the evening of May 12th, the "Emily E. Johnson" dropped anchor at Egg Island, and the next day was spent in shore and shoal water collecting. A great quantity of valuable material was secured and cared for.

The party then set sail for Havana, crossing the "Great Bahama Bank," a submerged plateau of great extent, which had been greatly neglected by previous expeditions. Here the first dredging was undertaken, more for the purpose of getting used to working the dredges than for specimens. The result, however, proved not only the satisfactory nature of the equipment, but the great richness of the "Bank" as a field for zoological expeditions, many of the most valuable specimens secured by the expedition being taken at this time.

Havana was reached on the evening of May 21st. Two days were occupied in visiting the city, and in obtaining permission of the Cuban authori-

The novelty of this enterprise, as well as its success, justifies a somewhat full description in this report. The expedition was decided upon in the fall of 1891. The university had no funds to devote to such a purpose, but it could supply a good equipment for biological work from its laboratories, and a good working library for the expedition could be supplied from the university library. Aside from this the appropriations for current expenses allotted to the chairs of systematic zoology and of geology and structural zoology were drawn upon for about four hundred dollars to meet the expense of dredging appliances and material for collecting marine specimens. All other expenses, including the chartering of the vessel, wages of captain and crew, provisions, transportation of party, port charges, etc., were met by the individual members of the expedition.

Among the first applicants for places on the expedition were two young ladies. Upon consultation it was decided to admit them provided the party was accompanied by a suitable chaperon, on the ground that, as the ladies had proved their ability to work shoulder to shoulder with the men in the class room and laboratory and as the S. U. I. is strictly a co-educational institution, it would be inconsistent to debar ladies who had shown ability in biological work from advantages which were to be offered to men.

This important matter being satisfactorily settled the plan began to take more definite shape. An executive committee was formed, consisting of Professors Calvin, Weld and Nutting, and this committee passed on the names of applicants for admission to the party.

Correspondence was opened with Captain Charles Flowers with a view to securing his services as skipper, and arrangements to that effect were finally made. This was a piece of rare good fortune, as Captain Flowers is a seaman of first class ability and peculiarly fitted to have charge of a vessel on such a cruise as the one contemplated, having spent his summers for many years in the Bahama trade and his winters in commanding a schooner engaged in oyster dredging in the Chesapeake. A month in his company at sea, during which two heavy storms were encountered, gave the writer an exalted opinion of his care and ability in managing a vessel in time of danger.

During the summer of 1892 a representative went east with instructions from the executive committee to secure, if possible, a suitable vessel for the expedition and gather all the information possible concerning the necessary equipment for the work.

Captain Flowers kindly assisted in the search for a vessel, almost entirely at his own expense. After examining several vessels, which were deemed unsuitable for the purpose or held at too high a price, a schooner was found at Norfolk, Virginia, which seemed especially designed for our use. A thorough examination was possible as we caught the vessel empty. Careful measurements were taken and verified by those reported at the custom house at Baltimore, and the schooner "Emily E. Johnson" was eventually chartered for the S. U. I. Bahama expedition. She is a two-masted, centreboard schooner, net tonnage 115.53, length 95.4, breadth 26.7, depth 7.9, and was built in September, 1883.

There is a cabin aft, which includes four staterooms, a small saloon and a toilet room. This accommodated the ladies very comfortably, giving them even more seclusion than they secure on an ordinary passenger steamer.

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ties for carrying on the work of the expedition. The letters furnished by the United States department of state secured every concession asked for and most courteous treatment from the officials.

One of the main objects of the expedition was to secure, if possible, a series of the much prized modern crinoids of the genus pentacrinus. None but expensively equipped government expeditions had hitherto been able to dredge these rare and interesting animals, and many of the most eminent authorities prognosticated the failure of our attempt. Mr. Benedict, of the Smithsonian had very earefully described the exact locality of the famous "Pentacrinus grounds" near Havana harbor. No scientific dredging had ever been attempted at such depths without the use of steam for propelling the vessel and hoisting the dredge. The S. U. I. expedition had no steam, but Captain Flowers had spent his life in dredging in shallow water with a sail vessel and the members of the expedition had plenty of faith and muscle. Thus endowed, a magnificent series of about one hundred and fifty specimens of pentacrinus was dredged from depths varying from one hundred and fifty to two hundred and fifty fathoms. The equipment devised by Prof Weld. was a complete success. This was the first occasion on which wire rope was used in dredging without steam. The professor in charge of the expedition has nothing but praise for the young men who toiled so faithfully day after day in the tropical heat at the cranks of the hoisting machine, demonstrating that pluck and muscle can secure success in the face of apparently unsurmountable difficulties.

Greatly encouraged by this achievement, the party sailed for its next station at Bahia Honda, a Cuban port about thirty miles west of Havana. It had been the intention to do some land work at this point, but the local authorities were so suspicious, evidently considering our party a filibustering expedition, that we were not allowed to work on the land, beyond thirty yards from the water line. The water and shore of the bay was a good field for investigation, however, and three days were profitably spent at this point, after which the expedition sailed for Key West, arriving at that point on the morning of June 5th.

Here we were informed that all vessels coming from Havana were compelled to lie in quarantine for fifteen days or go to the Dry Tortugas and be fumigated. We accordingly sailed at once for the Tortugas, where the expedition remained for eleven days. Dr. Robert Murray, physician in charge of the quarantine station, made our stay delightful by his many courtesies and thoughtful provision for our comfort. The region is a very interesting one from a biological standpoint, and the waters around the abandoned Fort Jefferson fairly teem with animal life. Under these circumstances the expedition lingered even after the quarantine period had expired and left the Tortugas with large collections and sincere gratitude to the hospitable officials.

The next station for work was the famous "Pourtales Plateau," a submarine shelf extending southward from the Florida Keys. Here two weeks were spent in dredging, whenever the weather would permit. A great quantity of unusually valuable material was dredged at this station, which was particularly rich in corals, hydroids, crustaceans and echinoderms. Here, also, a number of sharks, dolphins and other large fish were secured.

On July 1st the "Emily E. Johnson" cleared from Key West for Governor's Harbor, Eleuthera, a port in the British West Indies.

Here the vessel was run aground by an incompetent pilot, but floated off at the next high tide, and proceeded to Spanish Wells, where a large quantity of corals, star fish and sea urchins were secured.

After a short visit to the region of Little San Salvador, the expedition started on the homeward voyage, reaching Baltimore in eight days. A carload of valuable specimens loaded by the members of the party, reached Iowa City in safety.

The expedition was remarkable for the absence of any serious sickness, storms, or mishaps of any kind. From an educational standpoint it was a marked success and each member found unprecedented opportunities for learning, and the party worked with enthusiasm. The professor in charge has nothing but praise for the students both as scientific workers and as ladies and gentlemen. The material secured places our university far in the lead of all western institutions in the matter of marine material for biological study and places unrivaled opportunities within the reach of students who are interested in this important branch of zoology and botany.

The curator regrets to add that the present lack of funds and of room for the preparation and display of this wealth of material necessitates the abandonment of any idea of the exhibition of these collections until adequate funds are appropriated by the state.

EXTRACT FROM ANNUAL REPORT OF THOMAS H. McBRIDE, PROFESSOR OF BOTANY.

The event of the year has been the expedition to Nicaragua, conducted by my assistant, Mr. Shimek. This expedition has resulted in bringing to the herbarium very large additions of valuable material, besides bringing to the university the opportunity of describing many new and undescribed species of plants. In this work we are continually hampered by lack of literature. We need books, and such books as we need are expensive, too expensive for the amount of money we have at our disposal. We have, however, purchased some books and are carrying forward this part of our work as fast as possible.

In the conduct of our Nicaragua explorations we have been greatly aided by the Nicaragua Canal Company, of New York, through their worthy president, the Hon. Warner Miller. To Mr. Miller the university is indebted for many and great favors, and I recommend that the board be asked to extend a resolution of thanks to Hon. Warner Miller for his generous courtesy.

The way is now open for the university to do a great work in the exploration of Nicaragua. Whether we can avail ourselves of the opportunity will depend upon circumstances, some of which are conditioned by the success of the Nicaragua Canal Company. At all events it is desirable and, if you approve, we purpose to send another expedition to Nicaragua about December 1st of the present year. The expedition going the second time can accomplish much more than on the first excursion, so that we hope for much greater results next winter than were possible, last.

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In regard to our Natural History Bulletin, I join Prof. Calvin in a separate report.

As estimated above, the great need of this chair at present is suitable literature. Accordingly, for the next biennial period I need—

It is intended to make our botanical library and laboratory second to none in the country, if the legislature do but grant us the means of accomplishing our purpose. Thanks to appropriations already made, our equipment to-day is good and our collections growing, but there is room for enlargement and improvement in both. There has long been need of a greenhouse in connection with our work in botanical instruction, and if the appropriation asked for can be secured a beginning at least will be made towards a university greenhouse.

SPECIAL REPORT OF MR. SHIMEK, INSTRUCTOR IN BOTANY, ON THE NICARAGUA EXPEDITION.

In Professor McBride's absence, I respectfully submit the following report on the results of the Nicaragua botanical expedition:

Four months (December 16, 1892-April 16, 1893) were devoted to the expedition, and the total expenditure (for the university) in the field was \$236.85, as shown in detail in a former report.

Of the four months, less than three were spent in actual field work and the preparation of material, the remainder of the time being required for travel.

Notwithstanding the fact that much of the work was done under unfavorable circumstances, and that mould threatened at one time to materially injure our collections, I can report the following collections, all received in Iowa City in good condition, as the result of the expedition:

Pressed flowering plants-About five hundred and fifty species, two thousand specimens.

Pressed ferns-About one hundred and ten species, one thousand five hundred specimens.

Pressed mosses, etc.-About forty species, two hundred specimens.

Fungi-About three hundred species, many specimens.

Slime-moulds-About twenty-seven species, many specimens.

Dried seeds and fruits of about four hundred species of flowering plants, many specimens. A miscellaneous lot of alcoholic material for laboratory work, wood sections, and vegetable products other than seeds and fruits, increase the value of the collection.

The entire botanical collection consists of about one thousand five hundred sets of specimens containing over one thousand species and eight thousand to ten thousand specimens. The flowering plants and their seeds and fruits are nearly all new to our herbarium as is the greater portion of the remaining species.

Seven of the twenty-seven slime-moulds are undescribed, and will be named and described by Professor McBride, and no doubt a number of

other new species will be found during the summer's study of the collections, as the San Juan valley, in which most of this material was collected, has never been worked up by a botanist. The specimens are all carefully prepared and marked, and copious notes and descriptions were made in the field to facilitate identification, and also for use in class work.

This is the largest and most valuable addition thus far made to the herbarium at any one time, and its commercial value alone much exceeds the amount expended.

Limited collections of zoological material were also incidentally made and are deposited in the museum.

EXTRACT FROM REPORT OF L. G. WELD, PROFESSOR OF MATH-EMATICS AND ASTRONOMY.

The one need of the astronomical department is money. Unless money is forthcoming it cannot hold its own among the other scientific departments, any one of which has received a thousand dollars oftener than we have received a hundred. Last June not a dollar was allowed us for the work of the year just ending, though a miserable pittance of \$250.00 is all that was asked. The only money we have had through the year has been begged from time to time in small sums, or else supplied from my own short allowance. We have now to maintain, if possible, a course in geodesy. The introduction of this course is a step that I have urged for the last five years.

During the winter a zenith telescope was, at my solicitation, loaned to us by the United States Coast and Geological Survey, with which were secured the latitude observations necessary to make this a fundamental point for the systematic triangulation of this region. Other instruments may in all probability be obtained in the same manner. To carry on the work of this triangulation, however, money will be necessary.

I would, therefore, respectfully request the immediate appropriation of \$250 00 to be used at my discretion in carrying forward the work of the contemplated triangulation.

In addition to the above, I request that an item of \$2,500.00 for the use of this department, be included in the budget of appropriations to be asked of the next General Assembly.

SPECIAL REPORT OF GEORGE T. W. PATRICK, PROFESSOR OF PHILOSOPHY.

The present equipment in the department of psychology is as follows:

I. One professor who gives instruction also in ethics, logic, and history of philosophy.

II. One room, used as lecture room, laboratory, seminary room, and private office.

III. Psychological apparatus costing about \$125.00.

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Psychology cannot now be taught scientifically or efficiently with the above equipment. Psychology is now a natural science of even rank with biology, chemistry, physics, or physiology, and in importance certainly not behind these.

For modern requirements in psychology, a well equipped laboratory is as necessary as it is in physics or chemistry.

Harvard College has a psychological laboratory costing about \$5,100.00 exclusive of rooms and furniture. Yale College has a similar laboratory costing with its extensive suites of rooms a still larger sum. Cornell University has a psychological laboratory occupying seven special rooms.

The universities of Michigan, Wisconsin, Illinois, Indiana, and Minnesota have psychological laboratories, some of them very extensive.

It is hardly possible to defer any longer in the State University of Iowa an adequate equipment for this science.

Our immediate needs in psychology are then as follows:

I. A psychological laboratory, including rooms and apparatus.

II. An assistant instructor in psychology.

DETAILS AND ESTIMATE OF EXPENSES.

The rooms required are as follows:

One large room for lecture room.

One large room for laboratory.

Four small rooms for experiments in light and color, sound, private laboratory and work shop.

The laboratory equipment required is as follows:	
A.—For measurements of mental time, Ludwig kymograph, Hipp chronoscope, clocks, keys and electric connections	775.00
B.—The study of the special senses, sonometer, perimeters, æsthe-	
siometers, dynamometers, tuning forks, etc	485.00
C.—For neurological demonstrations, models of brain, dissecting	
tools, etc	425.00
D.—For study of perception of time and space	175.00
E.—For study of association, memory, attention, etc	200.00
F. —Technical apparatus	225.00
G.—Equipment for work shop	125.00
H.—Special furniture, and transportation on foreign apparatus	200.00
Total 8	2,610.00

EXTRACT FROM ANNUAL REPORT OF CHARLES D. JAMESON, PROFESSOR OF CIVIL ENGINEERING.

Leaving Iowa City on April 12th with eleven students from the senior, junior and sophomore classes, chosen by rank, and being furnished with free transportation for the party and equipment through the courtesy of the Chicago, Rock Island & Pacific Railway, we went to Pella, Marion county, Iowa, and from there started a topographical survey of the section of country extending from Amsterdam to Dunreath, a distance of about thirteen miles, and about three miles in width. The section of country was carefully contoured, the lines being twenty feet apart vertically, and work being done by means of careful triangulation, and the contour lines being put in by means of the Plane Table.

The party was in the field for eighteen days, and although it was pleasant for only three days of that time, still the survey was accomplished in a most satisfactory manner; and I must thoroughly compliment the students composing the party for the ability they have shown to accomplish good work under adverse circumstances. The entire expenses of this trip, which amounted to over \$400.00, were paid by the State Geological Survey, and the maps made are turned over to the State Geological Survey. From these maps will be made a relief map of that section of the country.

SPECIAL REPORT OF A. A. VEBLEN, PROFESSOR OF PHYSICS.

STATE UNIVERSITY OF IOWA. IOWA CITY, IOWA, September 11, 1893.

To the President of the University:

DEAR SIR-In order to carry forward the work in physics in accordance with the best modern practice, funds are needed for the increase of our equipment in several directions, and I respectfully submit to you the following statement of some of our needs and plans, in the hope that the board of regents will urge upon the next general assembly the necessity of appropriating money for the purposes here indicated.

The customary appropriation for general physical apparatus, is of course, as necessary as ever before, and less than \$4,000 will hardly be adequate for this item.

To meet the demands for practical work in electricity we need several plants of commercial size and exemplifying the principal methods of lighting and power transmission. At least three such outfits, including dynamos of constant current, constant potential, and alternating current types, with full sets of switches, meters, lamps, etc., are necessary for this purpose and would cost at least \$5,000. A good automatic steam engine and boiler with the proper shafting clutches and pulleys, at a cost of \$2,500, would be needed to furnish the power.

To house this machinery would require a one-story building with at least two thousand square feet of floor space. Such a building might be placed north of the physical laboratory and near enough to be easy in communication with the latter. The cost would of course depend on the style of building erected, but could in no case be less than \$2,000 or \$3,000.

A plan involving less expense would be to place the dynamos in the basement of the laboratory and build simply a boiler and engine house near enough to transmit the power to the dynamo room directly by means of a shaft running into the basement. But the basement, being poorly lighted and ventilated, is not well suited to this use.

We have long felt the need of a building to contain the magnetometers and one or more standard galvenometers. A building sufficiently commodious for this use might be erected for \$500.00, making a total of \$1,000 for this item.

Knowing the very urgent needs of the university, especially for buildings for other chairs and departments, I have here put the requirements of the chair of physics at the most moderate figures that I can justify to myself. To give us the opportunities worthy of the university and of the state, \$75,000.00 should at once be appropriated for a physical laboratory and a power house and their equipment. This would also afford relief to the crowded condition elsewhere, as the rooms now devoted to physics would afford four large and excellent lecture or recitation rooms with fairly good offices in connection with each.

Very respectfully,

Andrew A. Veblen, Professor of Physics.

REPORT OF DENTAL DEPARTMENT.

SUPPLEMENTAL REPORT OF THE DENTAL DEPARTMENT, UNIVERSITY OF IOWA.

To the Honorable, the President and the Board of Regents:

Since making our last report, the session of 1893 and 1894 has opened, and presents some serious questions for the consideration of all of those interested in the continued success of the dental department, which has been phenomenal from its organization up to the present time.

Within five years after its establishment, the dental department became self-supporting, and the financial showing of the past five (5) years (see exhibit I), in regard to income and expenditures, is unparalleled in the history of any department, and is a strong argument in support of the request we feel compelled now to make.

At the present time we need more room and equipments for the proper teaching of our large class of students. If we had the necessary equipments, we have nowhere to place them.

This condition of affairs is not new; from year to year we have been compelled to make more room for practical and laboratory teaching until all of the rooms formerly used for lectures, have been abandoned one by one, and we are without a lecture room for the department. All available space is taken in the building in which our department is located.

At present we have suitable room and equipments for only twenty-two (22) senior students, while this year's class numbers thirty (30). With the freshmen and junior classes, we can accommodate at the most, only one hundred (100), in the laboratories, while the number matriculated in these classes is one hundred and twelve (112). The students are exercising patience under this condition of things, in the belief that your honorable body will surely find some way out of the present difficulties.

We are of the opinion as a faculty, that you recognize these facts and are both willing and anxious to relieve this condition of

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built originally for a dormitory. It has been changed by the removal of partitions and supports to such an extent that it is doubtful whether additions to it could be successfully made.

This building is occupied by both the collegiate and dental departments. If a building should be put up for the collegiate department, it would, when completed, relieve the dental department of some of the difficulties now existing, but this relief could not come for one or two years in all probability, or until such building was completed. Our needs are pressing at this time and date.

We have frequently made a request that something might be done to avoid the necessity of using the basement of this building for any purpose. There has been no question in the minds of those conversant with the condition of these basement rooms, but that they should have been abandoned long ago. For some years they were used for dissection purposes and have been ever since unfit for any use where students would be required to occupy them. Yet for the last four years there have been from forty to eighty students working there every half day, of each day in the week, throughout the session. It is not good policy that the health of the students should be jeopardized by such conditions. The abandonment of these basement rooms would be the main relief to us in the completion of a new collegiate building.

After a careful digest of all the matters affecting our department and its future interests, as well as the interests of those who are, and those who will be students of the department, it seems to us that the best solution of the problem consists in securing a new building and equipments of such a character that it will fully meet the demands made upon the institution by the citizens of Iowa.

In exhibit 2 is the estimate of the expenditures for the session of 1893 and 1894 (which is in fact not an estimate), the amount being the usual annual appropriation made in June, 1893, for the expenses of the coming session. This department has never overrun its appropriation and is not likely to do so this year.

There is also an item of refunding fees which arises from the fact that some on account of sickness are unable to continue the session. The fees from irregular students which are yet to come in, will more than compensate for any refunds which it will be necessary to make.

The following is exhibit 1 of the financial condition of the department, taken from the secretary's report for the last five (5) years.

(The session of 1893 and 1894 now in course, being estimated upon a safe basis. See exhibit 2.)

affairs, but we think it right to place before you our appeal for legislative aid. Should this be put off until some future time (and it is so understood by the students now in attendance) the impression is at once formed that the university is not able to take care of its students. When such an impression is once established, and becomes current, it will naturally cause students to seek other schools for instruction, and when the tide of success which has been with us so long is turned away, it will require some years in time and much hard labor and expense to re-establish it.

As this is the only dental school in Iowa, it seems to us that it should be cared for in its every detail. Its liberal support by the dental profession, and the sons and daughters of the citizens of Iowa have made its success. These and other facts set forth are conclusive proof that there is a demand for this class of instruction in Iowa and that the establishment of a dental department in the State University was warranted and should have all the support necessary to meet these demands properly.

In submitting for your consideration the financial aspect of the department from 1889 to 1894, you will notice that it is not only self-sustaining, but will furnish in that period more than four thousand [dollars (\$4,000.00) as a surplus for the general fund. (See exhibit 1).

It is quite safe to say that with this showing, the department has been no expense to the state since its organization. There is no reason why this cannot be maintained from year to year if the department is furnished with a building and equipments adequate to receive and instruct all those who apply for admission. In our judgment this can only be done in one of two ways.

I. A building to cost with its furnishings fifty thousand dollars (\$50.000.00).

II. An appropriation for additions to, and remodeling of the present building occupied by this department, with furnishings to cost fifteen thousand dollars (\$15,000.00).

If the first proposition were carried out, it would not only benefit the dental department, but would be of general use. The form of building suitable for our purposes is also one best adapted for laboratory uses, viz.: a long building with good and abundant side lights. This could be used at any time temporarily to relieve the pressure for room in other departments.

If the second proposition is agreed upon, it can only be of temporary benefit and would be questionable economy, as the building referred to is one of the oldest of the campus and was

EXHIBIT I.

IN	-	~~		-	
I N	B 24	o a	w		

1889-90	
1889-90	8,440.12
	12,983.78
1891-92	10,158 08
1092-98	8,165.20
1893-94—estimated	11,698.00
	11,000.00
Total 8	51,455.18
EXPENDITURES.	
1880-00	
1890.91	
1890-91 10,284.06	
1891–92 9,775.92	
1892-93 8,189.83	
1893-94 9,960.60	
*	46,963.46
Surplus for general fund	1 101 10
	4,481.42

EXHIBIT II.

ESTIMATE OF INCOME OF 1893 AND 1894.

Number of students registered—		
Freshmen		72
Juniors		40
Seniors		30
Total		142
112 pay tuitions \$59.00 each\$	6,600.00	
30 pay tuitions \$46.00 each	1,380.00	
	8	7,988.00
72 pay examination fees \$5.00 each\$	360.00	
40 pay examination fees \$10.00 each	400.00	
30 pay examination fees \$25.00 each	750.00	
	\$	1,510.00
From special courses		500.00
Clinics		1,700.00
Total		11,698.00
EXPENDITURES.		
Appropriations made by the board of regents. Jun	ie, 1893 to	

June, 1894 \$ 9,960.00

All of which is submitted by the faculty.

A. O. HUNT.

REPORT OF THE SECRETARY.

REPORT OF THE SECRETARY.

STATE UNIVERSITY OF IOWA, SECRETARY'S OFFICE, IOWA CITY, Iowa, October 1, 1893.

To the Board of Regents:

Herewith is respectfully submitted a financial statement of the incomes and expenditures of the university for the biennial period from the close of the school year of 1890-91 to the close of the school year 1892-93.

The statement shows incomes and expenditures by departments as nearly as can be conveniently done.

The incomes and expenditures for general purposes are shown separately from the appropriations made by the General Assembly for special purposes.

The balance shown by this statement differs from that shown by the treasurer, for the reason that warants drawn and unpaid are treated, for the purpose of this statement, as paid, so as to show available funds for future expenditures.

Again, some items, such as tuitions and fees, collected by the secretary and paid to the treasurer, after the time of filing the treasurer's report, will appear in his next annual report, although the items were part of the previous year's work. The secretary's accounts show the exact sum pertaining to each school year, including such sums as are paid after the treasurer's report is closed. But as to the aggregate sums, there is no difference whatever.

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STATEMENT

Of incomes and disbursements on account of the general fund for school year, June 16, 1891, to June 16, 1892.

INCOMES-1891-1892.

		RIMENT.

COLLEGIATE DEPARTMENT.			
Tuitions and fees	6,318.11		
Chemical laboratory fees	48.98		
Library fines	23.40		
Net income		8	6,390.49
LAW DEPARTMENT.			
Tuitions and fees	8,413.00		
Law Bulletin	147.45		
Law book loan account	448.25		
Net income		8	9,008.70
MEDICAL DEPARTMENT.			
Tuitions and fees\$	5,181.00		
Hospital fees	402.00		
Chemical laboratory fees	289.00		
Net income		8	5,872.00
HOMEOPATHIC DEPARTMENT.			
Tuitions and fees	1,865.00		
Hospital fees	138.00		
Chemical laboratory fees	120.00		
Net income	Paralli.	8	2,123.00
DENTAL DEPARTMENT.			
Tuitions and fees	8,203.67		
Chemical laboratory fees,	145.00		
Clinic fees	1,954.41		
Net income		8	10,303.08

PHARMACY DEPARTMENT.

Tuitions and fees \$ 3,144.59		
Laboratory fees		
Medical pharmacy fees 48.55		
Products sold		
Net income	\$	3,231.91
MISCELLANEOUS.		
Sundry small items	8	86.40
STATE AND PERMANENT FUND.		
State appropriations		
Interest and rents from fund		
Treasurer's-miscellaneous 1,052.43		
Total	8	60,442.82
Available balance, income account from 1890-1891 \$ 18,614.90		
Other available balances of appropriation 1,508.64		
Law book loan balance		
Total available balances from 1890–1891	8	20,153.09
Amount available for the year 1891-1892	8	117,611.49

DISBURSEMENTS-1891-1892.

COLLEGIATE DEPARTMENT

COLLEGIATE DEPARTMENT.				
Salaries, professors and tutors	89,937.50			
Museum supplies	338.07			
Modern languages	82.98			
English languages	5.40			
Mental and moral science	39.03			
History	10.00			
Natural History Bulletin	302.70			
Transit publication	327.80		PERSONAL PROPERTY OF	
Chemicals and apparatus	759.07			
Political science equipment	58.66			
Chemical laboratory supplies	272.46			
Total		8	42,078,67	
The state of the s				
LAW DEPARTMENT.				
Salaries of professors	8,550.00			
Librarian	800.00			
Library-books	1,991.00			
Law Bulletin	147.45			

314.48

8 11,302.93

Law book loan account.....

Total.....

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MEDICAL DEPARTMENT.

Salaries, professors and assistants	9,385.00		
Anatomical material	1,620.29		
Chemical supplies	450.00		
Anatomical fixtures	42.15		
Hospital fees	393.00		
Chair of practice	40.00		
Chair of obstetrics	40.00		
Chair of physiology	40.00		
Chair of surgery	40.00		
Chair of materia medica	36.76		
Chair of eye and ear	40.00		
Chair of anatomy	30.00		
Chair of chemistry	342.42		
Chair of pathology-equipment	464.96		
Old hospital support	159.81		
Library-books	120.00		
Total			
10tal		8	13,244.89
HOMEOPATHIC DEPARTMENT.			
Salaries of professors	3,835.00		
Library—books	50.00		
Chairs-practice, etc	80.96		
Clinic supplies	100.00		
Museum	18.23		
Hospital fees	138.00		
	100.00		
Total		8	4,222.19
DENTAL DEPARTMENT.			
Salaries, professors and assistants	7,590.00		
Laboratory	616.25		
Clinic supplies	1,157.67		
Material for dental chairs	93.30		
Books and charts	26.55		
	~0.00		
Total		8	9,483,77
PHARMACY DEPARTMENT.			
Salaries, professors and assistants	2,329.25		
Supplies	520.00		
Supplies, account current	195.13		
Total		8	3,044.38

GENERAL EXPENDITURES.

Salaries of officers and assistants	9,925.00		
Wages, janitors	2,139.50		
Wages, janitors, chemical laboratory	282.00		
Wages night watch	462.00		
Fuel	2,614.78		
Printing and advertising	1,538.49		
Commencement expenses	883.68		
Opera house rent	200.00		
Care of grounds	250.00		
Gas	1,028.30		
Water	311.50		
Catalogues (partial payment)	428.00		
Chapel music	25.00		
Band instructor	176.80		
Supplies, military department	74.97		
Equipment, pathology and histology	1,000.00		
Elevator in science hall	245.00		
Microscope for medical department	148.94		
Outstanding bills-miscellaneous	941.35		
Traveling expenses-president and professor of			
pedagogy	500.00		
Observatory equipment	200.00		
Museum cases and fixtures	1,118.18		
Museum, collecting expeditions	250.00		
General library	838.97		
Incidentals	3,250.55		
Y. M. C. A. rent	500.00		
Illustrated annual	19.05		
Publishing notes	100.00		181
Total		8	29,401.46
AMBIEL CARRACTOR CONTRACTOR CONTR			NEW PROPERTY.

RECAPITULATION-1891-1892.

RECEIPTS.

6,390.49
9,008.70
5,872.00
2,128.00
10,303.08
3,231.91
86.40
60,442.82
20,153.09

Total available..... \$ 117,611.49

1893.]

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9,838.67

EXPENDITURES.

Collegiate	42,078.67		
Law	11,302.93		
Medical	13,244.39		
Homeopathic medical	4,222.19		
Dental	9,483,77		
Pharmacy	3,044.38		
General	29,401.46		
Total expenditures		8	112,777.79
Available balance, June 16, 1892		8	4,833.70

STATEMENT.

Incomes and disbursements account of general fund, school year, June 16, 1892, to June 16, 1893.

INCOMES-1892-1893.

COLLEGIATE DEPARTMENT,			
Tuitions and fees\$ Chemical laboratory fees Library fines	6,610 00 105.75 29.50		
Net income	NAME OF TAXABLE PARTY.	8	6,745.25
LAW DEPARTMENT.			
Tuitions and fees\$ Law book loans	9,704.50 447.50		
Net income		8	10,152.00
MEDICAL DEPARTMENT.			
Tuitions and fees	5,335.00 450.00 467.04		
Net income		8	6,252.04
HOMEOPATHIC DEPARTMENT.			
Tuitions and fees	2,415.00 189.00 107.81		
Net income	-	8	2,711.81

DENTAL DEPARTMENT.

Tuitions and fees. \$ 6,414.00 Chemical laboratory fees. 255.52 Clinic fees 1,776.20		
Clinic, fees		0.445.00
Net moome	4	8,445.72
PHARMACY DEPARTMENT.		
Tuitions and fees 3,587.78		
Products sold 50 90		
Laboratory fees		
Net income	8	3,678.24
MISCELLANEOUS.		
Sundry items \$ 160.96	8	160.96
STATE AND PERMANENT FUND.		
State warrants\$ 50,500.00		
Interest and rents from fund		
Total from state and fund	8	66,162.94
Cash balance in income account, June 16, 1892\$ 4,518.11		
Unexpended balances in other accounts 315.59		
True cash balance 4,888.70		
Total income available	8	109,142.66

DISBURSEMENTS-1892-1893.

COLLEGIATE DEPARTMENT.			
Salaries of professors and tutors	40,250.00		
Chair of philosophy	10.00		
Chair of history	60.50		
Chair of political science, maps	19.82		
Natural History Bulletin	242.10		
Transit publication	284.78		
Museum supplies	300.00		
Engineering supplies	196.22		
Total		8	41,313.37
LAW DEPARTMENT.			
Salaries, professors	8,950.00		
Librarian salary	300.00		
Tilburales and test	50.00		

Salaries, professors	8,950.00	
Librarian salary	300.00	
Librarian assistant	50.00	
Law book loan account, balance 1891-92	133,77	
Law book loan account	404.90	

Total.....

8 2,630.00

1893.]

MEDICAL DEPARTMENT.			
Salaries, professors and assistants	10,455.00		
Old hospital maintenance	105.59		
Medical library	108.28		
Chair of practice	40.00		
Chair of obstetrics	40.00		
Chair of physiology	17.00		
Chair of surgery	40.00		
Chair of materia medica	1.00		
Chair of anatomy	30.00		
Surgical clinics	190.00		
Gynecological clinics	120.00		
Practice clinics	77.37		
Eye and ear clinics	3.35		
Throat and nose clinics	22.37		
Hospital fees	450.00		
Total		8	11,699.96
DENTAL DEPARTMENT.			
Salaries, professors and assistants	7,080.00		
Clinic supplies	870.66		
Laboratory supplies	207.67		
Library and apparatus	31.50		
Assistant demonstrator	266.68		
Total.		8	8,456.51
HOMEOPATHIC DEPARTMENT			
Salaries, professors and assistants	3,835.00		
Chairs, supplies	48.87		
Library—books	46.68		
Museum	25.00		
Clinic material	50.00		
Hospital fees	189.00		
Total		8	4,194.55
PHARMACY DEPARTMENT.			
Salaries, professors\$	2,500.00		
Janitor's wages	130.00		

Total

MISCELLANEOUS.

Museum cases 8	181.82		
Officers and assistants	10,125.00		
Janitor natural history	200.00		
Janitors' wages	2,594.26		
Fuel	2,550.37		
Anatomical material	1,895.71		
Printing and advertising	1,277.82		
Commencement expenses	862.21		
Opera house rent	180 00		
Care of grounds	250.00		
Gas	1,044.60		
Water	500.00		
Catalogues	1,678.60		
Night-watch	438.00		
Band instructor	141.00		
Military supplies	75.00		
Traveling expenses—president	97.40		
Y. M. C. A. rent	374.94		
Postage	987.00		9.
Chapel music	25 00		
Alumni expenses	50.00		
Patrolman	30.00		
Outstanding bills	2,142.94		
Incidentals	1,448.29		
Total	Terley !	8	28,499.96

RECAPITULATION-1892-1893.

RECEIPTS.

Collegiate department	6,745.25	
Law	10;152.00	
Medical	6,252.04	
Homeopathic medical	2,711.81	- 7
Dental	8,445.72	
Pharmacy	3,678,24	
Miscellaneous	160.96	
State and permanent fund	66,162.94	
Balance, cash, June, 1892	4,888.70	
	-	
Total available		15

\$ 109,142.66

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1893.]

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EXPENDITURES.

Collegiate\$ 41,313.37		
Law 9,838.67		
Medical		
Dental		
Homeopathic medical 4,194.55		
Pharmacy		
Miscellaneous		
Total	8	106,633.03
Available balance, June 16, 1893	8	2,509.64

BALANCE OF SPECIAL APPROPRIATIONS.

. TWENTY THIRD GENERAL ASSEMBLY.

A statement of the special state appropriations, showing how the same have been drawn and expended in accordance with the act making said appropriations:

REPAIRS AND CONTINGENT EXPENSES.

TWENTY-THIRD GENERAL ASSEMBLY.

Balance on hand October 6, 1890	5,000.00
Amount drawn and expended to June 10, 1892	5,000.00

NATURAL SCIENCE EQUIPMENT.

TWENTY-THIRD GENERAL ASSEMBLY.

Balance on hand July 1, 1890		2,000.00
	to April 27, 1893	2,000.00

Note.-In dividing up the annual expenditures and charging each department with its proper amount of the same, the showing is as near correct as it can well be made. Some of the charges as to a department may be only approximate.

Some items seem to be fairly chargeable to a particular department as running expenses, when, in fact, part of it is in the nature of a plant or permanent fixture, as, for instance, instruments or apparatus which will be in use for years. Laboratory bills are often of this character. Some items in the general account may be in part for supplies. On the whole the division is believed to be correct.

The law department is charged with books bought, when in fact the books are part of the equipment.

Again the charge to the medical department account embraces the whole supply of anatomical expenses which were made for both the medical department and the homeopathic medical department. The same demonstrator of anatomy covers the work in both of said departments, although his salary is charged in the regular medleal department account.

The anatomical material used in the work for the dental department is embraced n the same account. It would be difficult to estimate the exact amount of expenses

The same remarks would apply to the salaries of the professors of the medical department who lecture to both the homeopathic and the medical students.

The whole receipts and expenditures being shown and being correct, the variations referred to above are immaterial.

PHYSICAL LABORATORY	APPARATUS.
TWENTY-THIRD GENERAL	ASSEMBLY.

	2,171.19
Amount drawn and expended to December 23, 1892	2,171.19

ENGINEERING EQUIPMENT.

TWENTY-THIRD GENERAL ASSEMBLY.

Balance on hand July 1, 1891	2,000.00
Amount drawn and expended to June 10, 1892	2,000.00

GENERAL LIBRARY.

TWENTY-THIRD GENERAL ASSEMBLY.

Balance on hand August 26, 1891 \$	8,272.31
Amount drawn and expended to January 18, 1892	3,272.31

VAPOR GAS PLANT.

TWENTY-THIRD GENERAL ASSEMBLY

Balance on hand August 5, 1891	262.70 151.80
Balance available to complete plant	111.40 ng and

CHEMICAL LABORATORY BUILDING.

TWENTY-THIRD GENERAL ASSEMBLY.

Balance at date of	last report		8,864.03
Amount drawn an	d expended to March	8, 1892	8,864.03

SPECIAL APPROPRIATIONS.

TWENTY-FOURTH GENERAL ASSEMBLY.

A statement of the special state appropriations showing how the same have been drawn and expended in accordance with the act making said appropriations:

DENTAL REPAIRS AND EQUIPMENT.

TWENTY-FOURTH GENERAL ASSEMBLY.

Amount appropriated	2,500.00
Amount drawn and expended to April 27, 1893	1,227.35
Amount available for current year8	1,272.65

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629.39

NATURAL SCIENCE EQUIPMENT—BOTANICAL.	
TWENTY-FOURTH GENERAL ASSEMBLY.	
Amount appropriated	1,200.00 896.81
Amount available for current year	303.19
NATURAL SCIENCE DEPARTMENT-ZOOLOGICAL.	
TWENTY-FOURTH GENERAL ASSEMBLY.	
Amount appropriated	1,200.00 802.74
Amount available for current year	397.26
NATURAL SCIENCE DEPARTMENT—GEOLOGICAL.	
TWENTY-FOURTH GENERAL ASSEMBLY.	
Amount appropriated	1,100.00 481.34
Amount available for current year	618.66
FOR PHYSICAL LABORATORY.	
TWENTY-FOURTH GENERAL ASSEMBLY.	
Amount appropriated	2,500.00 560.88
Amount available for current year	1,989.67
FOR GENERAL LIBRARY.	
TWENTY-FOURTH GENERAL ASSEMBLY.	
Amount appropriated	5,000.00
Amount drawn and expended to August 1, 1893	2,849.29
Amount available for current year	2,150.71
FOR ADDITIONAL EQUIPMENT FOR CHEMICAL LABORA	TORY.
TWENTY-FOURTH GENERAL ASSEMBLY.	
Amount appropriated	2,500 00 1,475.70
Amount available for current year8	1,024.80
FOR LAW LIBRARY.	
TWENTY-FOURTH GENERAL ASSEMBLY.	
Amount appropriated	2,500.00
Amount drawn and expended to August 1, 1893	1,870.61

Amount available for current year.....

FOR ADDITIONAL EQUIPMENT FOR DEPARTMENT OF PHA	RMACY.
TWENTY-FOURTH GENERAL ASSEMBLY.	
Amount appropriated	2,500.00 1,262.78
Amount available for current year	1,237.27
FOR PATHOLOGICAL AND BACTERIOLOGICAL LABORA	TORY.
TWENTY-FOURTH GENERAL ASSEMBLY.	
Amount appropriated	1,000.00 724.04
Amount available for current year	275.96
FOR HISTOLOGICAL LABORATORY.	
TWENTY-FOURTH GENERAL ASSEMBLY.	
Amount appropriated \$ Amount drawn and expended to August 1, 1893	1,000.00 495.59
Amount available for current year	504.41
FOR REPAIRS AND CONTINGENT EXPENSES.	
TWENTY-FOURTH GENERAL ASSEMBLY.	
Amount appropriated	10,000.00 5,280.94
Amount available for current year	4,769.06

REPORT OF THE TREASURER.

REPORT OF THE TREASURER.

STATE UNIVERSITY OF IOWA, TREASURER'S OFFICE, IOWA CITY, IOWA, November 6, 1893.

To the Honorable Board of Regents of the State University of Iowa:

Gentlemen—I herewith submit a statement of income and disbursements for the biennial period, commencing June 10, 1891, and ending June 2, 1893.

I also submit herewith a statement of the assets of the State University of Iowa on June 2, 1893.

Income from June 10, 1891, to June 2, 1893.

RECEIPTS.

Balance on hand June 10, 1891		.8	38,567.80
From June 10, 1891, to June 1, 1892:	20 00× 11		
Received appropriations	76,835.11		
Received tuitions	36,561.79		
Received interest	16,390.39		
Received rents	170.75		
		8	129,958.04
From June 1, 1892, to June 2, 1893:			
Received appropriations	80,639.23		
Received tuitions	37,957.04		
Received interest	15,662.94		
Received rents	130.00		
	14-1-1	8	134,389.21
		8	297,915.05
DISBURSEMENTS.			-
Warrants paid:			
For the year ending June 1, 1892\$	155,304.04		
For the year ending June 2, 1893	127,471.21		
Balance on hand June 2, 1893	15,139.80		
Total accounted for	TENT	8	297,915.05

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RECAPITULATION.

RECAPITULATION.		
Income for two years ending June 2, 1893 Disbursements for two years ending June 2, 1893		264,847.25 282,775.25
Excess of disbursements over income Balance on hand June 2, 1893	15,139.80 33,567.80	18,428.00
Decrease of balance June 2, 1893, from June 10, 1891	8	18,428.00
Assets, June 2, 1893.		
Mortgage notes	224,181.49 3,870.64 4,012.52	
Total working capital June 2, 1893	8	232,064.65 233,896.05
Decrease of capital June 2, 1893, from June 10,1891 Capital increased two years ending June 2, 1893:	8	1,831.40
Sale of lands	2,331.40	
Decrease of capital two years ending June 2, 1893	8	1,831.40

The unsold lands of the University June 2, 1893, amount to 3,222 48 acres, as shown by the books of this office.

Respectfully submitted,

LOVELL SWISHER, Treasurer.

REPORT.

Showing receipts and disbursements of money from October 1, 1891, to October 2, 1893, as required by Chapter 31 of the Acts of the Twenty-third General Assembly.

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1891.			
September	30.	Balance on hand	10,389.39
November	3.	Tuitions and fees	4,555.63
November	20.	State warrants	19,663.37
December	4.	State warrants	12,452.55
1892,			
January	8.	Tuitions and fees	3,445.00
January	18.	State warrants	5,262.23
February	8.	Tuitions and fees	6,017.03
March	5.	Tuitions and fees	4,563.72
March	8.	State warrants	15,631,39
April	12.	Tuitions and fees	1,663.43
April	25.	Interest on fund	14,409.77
May	24.	Tuitions and fees	1,472.18
June	1.	Interest and rent	1,714.70
June	10,	State warrants	14,460.98
July	6.	Interest	265.92
June	29.	Tuitions and fees	1,247.94
August	8.	State warrants	7,000.00
September	19.	Tuitions and fees	847.40
October	6.	Tuitions and fees	17,907.50
October	31.	State warrants	16,343.00
December	7.	Tuitions and fees	6,929.11
December	22.	State warrants	9,620.08
1893.			
January	7.	State warrants	7,000.00
January	12.	Tuitions and fees	1,336.41
February	14.	Tuitions and fees	5,495 26
February	23.	State warrants	11,250.00
March	10.	Tuitions and fees	768.14
March	25.	Tuitions and fees	576.71
April	27.	State warrants	14,965.17
May	20.	Tuitions and fees	2,848.54
July	6.	Tuitions and fees	1,436.95

1893.				
July 10.	Interest	15,662.94		
August 1.	State appropriations	14,071.91		
August 26.	State warrants	7,000.00		
October 2.	State warrants	7,000.00		
		1,000.00		
			8	265,274.35
1891.	DISBURSEMENTS.			
November 5.	Warrants issued	13,636.67		
November 25.	Warrants issued	16,174.60		
December 23.	Warrants issued	13,327.51		
1892.		10,021.01		
January 27.	Warrants issued	14,905.70		
February 26.	Warrants issued	13,815.98		
March 31.	Warrants issued	10,252.57		
April 28.	Warrants issued	7,589.74		
May 26.	Warrants issued	8,875.87		
July 12.	Warrants issued.	18,840.94		
July 28.	Warrants issued	1,610.67		
August 25.	Warrants issued	2,550.41		
October 6.	Warrants issued	12,196.98		
October 27.	Warrants issued	10,036.95		
December 1.	Warrants issued	14,251.42		
December 22.	Warrants issued	10,808.93		
1893.				
January 26.	Warrants issued	11,338.47		
February 23.	Warrants issued	14,846.76		
March 30.	Warrants issued	12,014.60		
April 27.	Warrants issued	8,330.62		
May 25.	Warrants issued	8,924.12		
June 29.	Warrants issued	16,667.83		
July 27.	Warrants issued	2,511.92		
Angust 24.	Warrants issued	3,203.47		
September 27.	Warrants issued	13,237.60		
		-	8	259,950.33
October 2.	Balance on hand		*	5,324.02
STATE OF IO	WA,			

JOHNSON COUNTY.

I, William J. Haddock, Secretary of the Board of Regents of the State University of Iowa, being first duly sworn, on oath say, that the foregoing statement of receipts and disbursements during the period set out, is correct and true as I verily believe.

WM. J. HADDOCK.

Subscribed to by Wm. J. Haddock and by him sworn to before me on this 9th day of November, 1893. Witness my hand and seal notarial.

LOVELL SWISHER.

[SEAL.]

Notary Public .