

PROCEEDINGS
OF THE
BOARD OF TRUSTEES
OF THE
UNIVERSITY OF ILLINOIS,
FOR THE YEAR ENDING AUGUST 31, 1893.

MEETING OF SEPTEMBER 13, 1892.

The Board of Trustees of the University of Illinois met at 4:30 o'clock p. m., Tuesday, Sept. 13, 1892, in the University Parlor, in Urbana. Present, Messrs. Bullard, Cobb, Graham, McLean, Raab, and Shawhan; absent, Governor Fifer, and Messrs. Bryant, Clemens, Funk, McKay, and Morgan.

The Regent presented his report:

REGENT'S REPORT.

To the Board of Trustees of the University of Illinois.

GENTLEMEN: Since your last meeting the chief activities bearing upon the affairs of the University have been along the lines of perfecting the material equipment of the institution and in preparation for the work of the coming collegiate year. Your committee on buildings and grounds will report upon most of the work under the first of these subjects, and your committee on instruction upon that of the second.

University Hall has been cleaned and repaired and the heating apparatus is in order for use. Natural History Hall is still incomplete, and the arrangements for heating the Chemical Laboratory are not yet perfected. It would have greatly added to the conveniences of instruction and to the best interests of the University, if these jobs could have been completed before this time; but it is hoped that the disadvantages will be of but a few weeks' duration. It is, however, exceedingly unfortunate that the new building cannot be adequately furnished when ready for occupancy. The appropriation is, as was anticipated, altogether inade-

quate for the purpose. It now seems that resort must be had to every possible makeshift in order to utilize the room provided until further legislative aid can be secured. Certain recommendations for temporary provision will be found below.

Dr. David S. Jordan has kindly consented to deliver an address upon the dedication of this building, some time in October next, and other parts of a suitable program are to be added. It is an important occasion, and should attract much attention.

NEW BUILDINGS.

You will be asked again to consider the proposed buildings, for which legislative appropriations are to be sought, and this probably constitutes the most important business of the present meeting. Not only plans of buildings should be made, but also plans for a vigorous presentation of the case before the General Assembly, individually and collectively; for that will be essential to success. There is a great work to be done; somebody must do it; you must determine what shall be undertaken and upon whom the duties shall fall.

Besides the buildings for which the preliminary plans have been submitted to you, the subject of a proposed building for women was presented at your last meeting. I have now to submit a communication from an association of the women graduates of the University, organized for this purpose.

To the Honorable Board of Trustees of the University of Illinois.

GENTLEMEN: We, Associated Alumnae of the University of Illinois, fully appreciating the magnitude of your present efforts to advance the interests of the University, and desiring in no way to obstruct any movement already started with the view of raising its standard, are nevertheless of the opinion that the matter laid before you at the June meeting is of such importance that its consideration should not be delayed until the legislative session, two years hence.

We believe that it is essential to the interests of women in the University that there be provided a home for non-resident women students. This want appeals especially to those of us who were formerly non-resident students. We recognize the drawbacks of the dormitory system; but after conferring with those who have had experience in this line, we believe that a home for a limited number would offer advantages, not to be offset by the known disadvantages.

We wish also to urge the appointment of a representative woman to a full professorship in the University.

After due consideration, therefore, we beg to submit to you the following petition:

1. That there be appointed at least one representative woman as full professor in the University.
2. That a cottage to accommodate not more than fifty young woman be added to the list of buildings to be asked for of the next legislature.

If you approve of our petition, we are ready, under your direction, to do what may be done by a direct appeal to the legislature for the necessary appropriation.

MARY L. PARSONS, *President Associated Alumnae.*
VIRGINIA H. TALBOT, *Corresponding Secretary.*
KATHARYN KENNARD, *Recording Secretary.*

NANNIE D. SCOVELL, MARIETTA D. BEARDSLEY, ELLA W. DAVIS, HELEN B. GREGORY, AVIS E. SMITH,	}	<i>Executive Committee.</i>
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Nothing further has been done in raising funds for the projected building for the Christian associations; but the work will be vigorously pushed, and there is reasonable hope that it will succeed.

NEW INSTRUCTORS.

Under the second division of vacation activity, the chief accomplishments have been in filling the vacancies in the corps of instruction. Apparently gratifying results have been attained, and the places have all been filled. However, within a few days Mr. C. L. Cory, assistant in physics and electrical engineering, has received a very flattering offer to go elsewhere for the same work. Under all the circumstances and the pressure of time, I have undertaken to find an acceptable substitute, and have probably succeeded in the person of Albert Louis Kuehmstedt, who, however, cannot be here until the 14th or 15th inst. This action is of course subject to your revision, and your direction in the matter is solicited.

As indicating the strenuous endeavor to fill, in the best manner possible, the vacancies existing when you last assembled in regular meeting, it may be stated that the persons newly selected for service here are graduates of the following remarkable list of well-known institutions of learning: Harvard, Yale, Columbia, Princeton, Berlin, Cornell and Purdue Universities, the state universities of Michigan, Kansas and of Illinois, Stevens' Institute, Dartmouth College, Bryn Mawr College, Monmouth College and Western College (Iowa). This certainly shows extensive inquiry and a determination to secure the best available talent for the work to be done. Most of the appointees are teachers of experience, with achieved reputations in their specialties. All counted, there are fifteen new names to be inserted in the list of professors and instructors, against nine withdrawn. The increase is: One in English literature, one in athletics, one in agriculture, one in mechanics and engineering, one in architectural shop and one in music. Besides these there are two fellows to whom classes are assigned, one in modern languages and one in physiology. There is an urgent demand for still further assistance in two or three subjects, which may be secured doubtless from advanced students, and for which a small assignment will be asked. As matters now stand there is an increase of \$3,950 in the salary account over that of last year, including in the latter \$4,000 for the professorships of mechanical engineering and psychology. Eight hundred dollars of this increase is due to an increase of certain salaries, the remainder to additional teaching force. The total salary account as now provided for the year (exclusive of regent) is \$59,942.50.

BY-LAWS OF THE FACULTY.

The State law prescribes that the faculty of the University shall consist of the chief instructors in each of the several departments. (*Act 1867, Section 10.*) The constitution of the faculty, as at present organized under your authority, is according to the following rule:

"The faculty of the University shall consist of the regent and all the resident professors, and of such assistants as have the chief charge of distinct schools. Its officers shall consist of the regent as president, *ex officio*, and of a vice president and a secretary, to be chosen annually by ballot, at the first regular meeting in September."

Seeking to adjust the matters concerning the organization of the faculty and the powers and duties thereof to existing circumstances and requirements, this body presents for your approval the by-laws and rules herewith submitted:

1. The faculty of the University shall consist of the regent and all the resident professors, and of such assistants as have independent charge of departments of University instruction. Its officers shall consist of the regent as president, *ex officio*, and of a vice president and a secretary, to be chosen annually by ballot, at the first regular meeting in September.

2. The faculty of the University shall have control of the discipline and studies of the University, subject to the general direction of the board of trustees, and shall make, in that behalf, from time to time, such regulations as it may deem expedient.

3. The faculty of the University shall meet on a fixed day of each week during term time, and at such other times as the regent may deem it necessary to call a special meeting. The order of business at each meeting shall be:

1. Calling the roll of members.
2. Reading the minutes of last meeting.
3. Reports of officers.
4. Reports of committees.
5. Reports from the several colleges.
6. Unfinished business.
7. New and miscellaneous business.

4. The president, vice president and secretary shall have the powers and perform the duties usually devolving upon such officers.

5. The following standing committees of the faculty shall be elected annually by the faculty, by ballot, at the first meeting of the year, or as soon thereafter as practicable, each committee to hold office until its successor is elected:

1. An executive committee, to consist of the regent, the vice president and the deans.
2. A committee on university extension.
3. A committee on preparatory schools.
4. A committee on advertisement and publications.
5. A committee on military affairs.
6. A committee on athletics.
7. A committee on public exercises.
8. A committee on students' welfare.
9. A committee on library.
10. A committee on museums and collections.

6. The regent shall be chairman of the executive committee, and shall be, *ex officio*, a member of each other committee, in addition to those members elected.

7. The executive committee shall have all the authority of the faculty itself, *ad interim*, when the necessity or the dispatch of business requires it, and shall further act or report upon all matters specially referred to it by the faculty; provided that it shall not change any action of the faculty without the consent in writing of at least a majority of the latter, and that all action of the committee *ad interim* shall be reported to the faculty at its regular meeting.

The duties and powers of the other standing committees shall be (1) to originate, consider, and recommend to the faculty, lines of policy and particular measures in their several provinces; and (2) to act upon all matters referred to them by the faculty.

8. The University shall comprise four colleges; the College of Agriculture, the College of Engineering, the College of Science, and the College of Literature, and the School of Military Science and the School of Art and Design. The faculty of each of the several colleges shall consist of the regent and of such professors, assistants, and instructors as shall be annually assigned to it by the general faculty.

9. The officers of each college faculty shall be a dean and a secretary, the first to be elected by ballot by the faculty of the University at its first regular meeting, and the second to be elected by the faculty of the

college. It shall be the duty of the dean to call and preside over all meetings of the faculty of his college and to report its action to the general faculty. The secretary shall keep the records of the college faculty meetings.

10. The faculty of each college shall meet at the call of the dean. Its duty shall be to recommend to the faculty of the University such changes in the course of study, or other policies, as it may from time to time deem for the good of its college; and to enforce such rules of order, studies, etc., as may be required by the faculty of the University.

11. Meetings of the general faculty shall be held Mondays at 4 P. M., except the first regular meeting of the college year, which shall be held the Friday preceding the opening of the fall term.

12. Numbers 1, 2, 8, 9, and 10 of above by-laws, may be amended by vote of the faculty and approval of the trustees, and the remaining by-laws by vote of the faculty alone; provided that no amendment may be adopted by the faculty until it has lain upon the table at least one week.

At your last meeting the rules for the government of students were referred to the executive committee of the faculty for report to you at this time. This report will be presented later in your session.

I submit a communication from the secretary of the Chicago Society for University Extension, in which, by your consent, this University has membership. This is a request for \$250 annually for the support of the Society. Heretofore the society has been maintained by private contributions and individual membership dues. It appears to me necessary that the support proposed above be given, if there is to be any reasonable prospect of continuing the organization. Whether such continuance is sufficiently desirable to warrant the expense is quite another question, which, to my mind, can only be decided by a conference with the other institutions constituting the society. If compelled to answer without such conference, I should have to decide in the negative.

HONORARY SCHOLARSHIPS.

In accordance with the state law, and by your order, each county in the State is entitled to one honorary scholarship in the University, good for four years. There are now on our books twenty-seven such scholarships filled. In twenty-two counties the competitive examinations required have been held this year, and up to date nine awards have been made. This is a comparatively meagre showing, and it seems reasonable to infer that no great good comes to the University from this source. The examinations are held under the direction of the county superintendent of schools, who has no personal interest in the matter. They ordinarily come but once during his single term of office, and consequently are not prominent in his official duties. In the examinations reported this year the respective numbers of candidates were as follows: 1, 3, 1, 1, 1, 2, 2, 2, 4 (Champaign county), 1, 2, 1, 2, 2, 2, 1, 2, 1, 1, 1, 1, 1. There is, therefore, little competition. Probably little attention is paid to the matter except on the part of some one who sees a good chance to gain thus a free scholarship, and whose personal interest keeps him quiet about it.

This is said in no spirit of hostility toward the county scholarships; it is only hoped more may be made of them, and that in some way more good may be received from them.

But it appears probable that greater interest would be taken in a similar provision extended to our accredited high schools. If a free scholarship for one year should be awarded to the student in each of these schools who attained the highest average standing in the subjects required for entrance to the University, the prize would be constantly before a body of young people directly interested in the matter. The proposition would not become cold, and no one could slyly appropriate

the honor and advantage to himself. If it should be thought best to make such a scholarship good for four years, one should be still offered each year.

Another similar method of bringing the University before the people has been suggested: viz., the award of a scholarship in the preparatory department to the pupil who passes the best examination in each of the township examinations now held under the county superintendent in a good many counties. Here, also, the annual offer should be made for reasons above mentioned.

Should you deem it wise to authorize procedure in one or both of these ways, I suggest that the subject be referred to the faculty for elaboration. But scholarships for the preparatory school can be thought of in connection only with a reorganization of our preparatory instruction.

Last year authority was given to procure a certificate to be presented to each of our accredited schools. It was, however, found impossible to secure what was deemed desirable within the assignment made for the purpose, and nothing was done. By leaving out the cuts of the buildings, which it was then proposed to have on the certificate, it is now found that 200 copies from a suitably engraved plate can be had for \$67.50. Your approval of the purchase is solicited.

A silver medal was awarded the University of Illinois by the Paris Exposition three years ago. It has not been received. A recent communication from Dr. Peabody gives the information that this is because the price, 35 francs, was not forwarded. The faculty has referred the subject to you with the opinion expressed that the medal should be obtained, if still possible. Will you direct what action shall be taken?

I herewith present a report by Professor Morrow, of the agricultural department, containing, besides the usual business statements, suggestions in regard to plans of instruction to which your considerate attention is asked.

AGRICULTURAL REPORT.

UNIVERSITY OF ILLINOIS, Sept. 12, 1892.

Dr. T. J. Burrill, Acting Regent,

DEAR SIR:—I respectfully present the following report for the three months ending Sept. 1, 1892:

The receipts from the University farms were.....	\$960 25
The expenditures were.....	1,106 17

Balance against the farms.....	\$145 92
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The yield of hay was more than usually large. About 200 tons were secured in good condition. The yield of wheat was good, but the quality of the grain was inferior. The army worm seriously reduced the yield of oats. About 1,800 bushels were threshed. The corn crop promises a fair average yield, unless injured by frost within ten days. The live stock is in a good health and condition.

In regard to the work of instruction in the college of agriculture it has been earnestly hoped that the changes made in the course of study; offering greater freedom of selection and a choice of several lines of scientific work would bring some increase of students. The experience here, and at other institutions of somewhat similar character, seems to make it certain, however, that for the present it is to short courses that we must look for any considerable number of students of agriculture. The changes made in the short course offered here are believed to be such as will make it more useful and popular.

I respectfully recommend that special efforts be made to attract attention to the three months' winter course by securing a brief course of lectures or addresses by men of reputation as stockmen or general farmers.

It is believed valuable help could be given by officers of the State Board of Agriculture, the State Dairymens' Association, editors of agricultural or live stock papers, etc.

In former years much work has been done by members of the faculty of the college of agriculture in the way of lecturing before farmers' institutes, dairy and horticultural meetings, etc. Good has been done. One necessary limitation to the highest usefulness of farmers' institutes has been in the fact that the instruction given has been fragmentary brief addresses or discussions on each of a considerable number of separate subjects. Interesting and useful as these have often been, it is believed much greater good would result if it were practicable so to arrange them that series of lectures, demonstrations, or discussions could be given on different phases of one subject.

Several courses of lectures on subjects directly connected with agriculture are offered by members of the faculty of the University and of the Experiment Station staff in the announcement for university extension work by this University. There are practical difficulties in arranging for the regular University extension work in rural communities.

I believe it possible to combine the farmers' institute and the convention or annual meeting of agricultural, dairy, or horticultural associations with the university extension idea and work in a way that would enable the University, through the college of agriculture and the Agricultural Experiment Station, to reach a larger number and give more valuable instruction than we have yet found practicable. Without now attempting to give details of the plan, I suggest that, in connection with the societies or associations most interested, at least three special "schools" be held during the coming winter in different portions of the State. One, preferably in the northern part of the State, could be devoted to dairying; one to general agriculture or stock-breeding, and one to horticulture. These "schools" might continue one or two weeks each, and in them instruction could be given daily by lecturers representing the University; this to be combined with the presentation of practical experience by members of the societies co-operating.

It is believed the expenses of such meetings might be largely borne by those interested in the localities in which they would be held, the University paying the expenses of the lecturers furnished by it.

These general suggestions are respectfully submitted,

G. E. MORROW.

Professor Morrow also submits the following, and the suggestions merit favorable action:

UNIVERSITY OF ILLINOIS, Sept. 12, 1892.

Dr. T. J. Burrill, Acting Regent,

DEAR SIR:—As chairman of the committee appointed by the faculty to advance the work of preparing the exhibit to be made by the University at the World's Columbian Exposition, I respectfully request that the attention of the board of trustees be called to the desirability of having a small fund from which payment may be made, as needed, for services rendered or purchases made in preparing this exhibit, in advance of payment by the Illinois Board of Commissioners; all money so paid to be returned to this fund as final payment is made by the commissioners. In some cases inconvenience is caused by the present arrangement. The sum of \$500 would probably be ample.

I would also respectfully call attention to the fact that the annual meeting of the Association of American Agricultural Colleges and Experiment Stations is to be held at New Orleans, beginning Nov. 15th. It has been the custom to appoint some one as the authorized representative of the University at these meetings, and to provide for payment of his expenses. The University and the Experiment Station are each entitled to one delegate.

G. E. MORROW.

APPROPRIATIONS ASKED FOR.

I submit requests for appropriations and am ready to give you full information with regard to them:

For additional instructors in certain classes.....	\$150 00
For testing laboratory.....	930 00
For pier at astronomical observatory.....	15 00
For table and map in Professor Snyder's room.....	20 00
For expenses of committee on students' welfare.....	15 00
For furniture and fixtures in new geological laboratory.....	440 00
For matting for library.....	30 00
For gymnasium apparatus.....	476 00
For six swords and belts.....	60 00
For invertebrate museum specimens.....	300 00
For zoölogical laboratory material.....	30 00

EXPERIMENT STATION REPORT.

Professor T. J. Burrill, Acting Regent,

DEAR SIR:—The board of direction of the Agricultural Experiment Station presents the following papers:

Paper A is a list of warrants drawn, No. 208 to 306, inclusive, and is accompanied with vouchers for the same, for audit.

Paper B is a statement of expenditures for the quarter ending June 30, 1892.

Paper C is a statement of expenditures for the year ending June 30, 1892.

Paper D is a statement of appropriations, expenditures, and balances for the quarter ending September 30, 1892.

Paper E is a statement of appropriations asked for this and next quarters.

The board of direction asks that the trustees appropriate funds according to estimates in Paper E for the use of the station.

The board also asks that Paper C be passed upon by the trustees in order that it may be used as the basis of the financial report which by law must be made for the year to ending June 30, 1892, to the Governor of the State, and to the Secretary of the Treasury of the United States.

PAPER B—STATEMENT OF EXPENDITURES, QUARTER ENDING JUNE 30, 1892

Building and repairs.....	\$620 89
Board expense.....	18 06
Books and publications.....	424 19
Botanical apparatus and supplies.....	155 72
Bulletins.....	511 48
Chemical apparatus and supplies.....	253 87
Fertilizers.....	50
Fuel and lights.....	106 20
Furniture.....	84 25
Incidentals.....	13 85
Meteorological apparatus.....	4 20
Printing, stationery, and postage.....	85 83
Salaries.....	1,638 34
Seeds and trees.....	44 26
Tools and supplies.....	172 67
Wages and teams.....	1,139 04
Sundry experiments—	
Beet and wheat experiments.....	26 54
Dairying experiments.....	23 65
Total.....	\$5 323 54

PAPER C—STATEMENT OF RECEIPTS AND EXPENDITURES, FOR YEAR ENDING JUNE 30, 1892.

<i>Receipts—</i>		
Appropriated by Congress.....	\$15,000 00	
<i>Expenditures—</i>		
Buildings and repairs.....	\$647 54	
Board expense.....	53 08	
Books and publications.....	774 19	
Botanical apparatus and supplies.....	207 13	
Bulletins.....	941 25	
Chemical apparatus and supplies.....	564 95	
Fertilizers.....	75	
Fuel and lights.....	328 20	
Furniture.....	84 25	
Incidentals.....	17 95	
Meteorological apparatus.....	12 75	
Printing, stationery, and postage.....	132 08	
Salaries.....	6,900 84	
Seeds and trees.....	190 06	
Tools and supplies.....	216 15	
Wages and teams.....	3,666 41	
Beet, corn, and wheat experiments.....	65 09	
Dairying experiments.....	119 93	
State Fair exhibit.....	77 30	
Total.....	\$15,000 00	

URBANA, ILL.,, Sept. 12, 1892.

To the Trustees of the University of Illinois.

GENTLEMEN: The foregoing is a true statement of the receipts and expenditures of the Agricultural Experiment Station of the University of Illinois for the fiscal year ending June 30, 1892.

Respectfully submitted,

G. E. MORROW, *President Board of Direction.*

W. L. PILLSBURY, *Secretary Board of Direction.*

PAPER D—STATEMENT OF EXPENDITURES FOR QUARTER ENDING SEPT. 30, 1892.

	APPROPRIATED.	EXPENDED.	BALANCE.
Buildings and repairs.....	\$25 00		\$25 00
Board expense.....	40 00		40 00
Books and publications.....	50 00		50 00
Botanical apparatus.....	60 00	\$47 43	12 57
Bulletins and report.....	200 00		200 00
Chemical apparatus.....	170 00	131 24	38 76
Fuel and lights.....	60 00		60 00
Furniture and fittings.....	15 00		15 00
Incidentals.....	25 00		25 00
Printing, stationery, and postage.....	25 00	9 50	15 50
Salaries.....	1,950 00	1,281 66	668 34
Seeds and trees.....	10 00		10 00
Tools and supplies.....	25 00	20 88	4 12
Wages and teams.....	1,150 00	594 79	555 21
Sundry experiments—			
Beet and wheat experiments.....	60 00	9 00	51 00
Dairying experiments.....	50 00	4 05	45 95
Columbian Exposition work.....	50 00		50 00
Total.....	\$3,965 00	\$2,098 55	\$1,866 45

PAPER E—ESTIMATES.

<i>For Quarter Ending Sept. 30, 1892.</i>		
Wages and teams.....		\$100 00
<i>For Quarter Ending Dec. 31, 1892.</i>		
Buildings and repairs.....		25 00
Board expenses.....		40 00
Books and periodicals.....		250 00
Botanical apparatus.....		10 00
Bulletins.....		350 00
Chemical apparatus.....		75 00
Fuel and lights.....		100 00
Incidentals.....		25 00
Printing, stationery, and postage.....		25 00
Salaries.....		1,985 00
Seeds and trees.....		20 00
Tools and supplies.....		25 00
Wages and teams.....		900 00
Sundry experiments—		
Dairying experiments.....		100 00
Wheat and other experiments.....		50 00
Columbian Exposition work.....		50 00
Total.....		\$4,030 00

The board of direction will continue its work on the lines already laid down and asks authority:

To investigate the changes caused by bacteria in milk and its products.

It is the sense of the board of direction that the Experiment Station should be represented by a delegate at the meeting in November next, at New Orleans, of the Association of American Agricultural Colleges and Experiment Stations.

Respectfully submitted,

G. E. MORROW,
President Board of Direction.

I recommend that the requests of the Experiment Station be granted.

Respectfully submitted,

T. J. BURRILL,
Acting Regent.

The board adjourned to meet at 8 o'clock P. M., at the Doane House, in Champaign.

EVENING SESSION.

The treasurer presented his report, which was received and referred to the finance committee:

JOHN W. BUNN, TREASURER, IN ACCOUNT WITH THE UNIVERSITY OF ILLINOIS.

1892.	<i>Dr.</i>		
June	7	To balance.....	
"	7	To interest on Morgan county bonds.....	\$1,400 00
"	7	" Montgomery school bonds.....	660 00
"	7	" Urbana school bonds.....	550 00
"	7	" Homer school bonds.....	375 00
"	7	" Champaign county school bonds.....	182 50
July	1	" Champaign county bonds.....	\$3,150 00
"	1	" Chicago bonds.....	875 00
"	1	" Pike county bonds.....	2,600 00
"	1	" Macoupin county bonds.....	660 00
"	1	" Sangamon county bonds.....	400 00
"	1	" Gallatin county bonds.....	300 00
"	1	" Pittsfield school bonds.....	630 00
"	1	" Litchfield school bonds.....	440 00
"	1	" Montgomery county school bonds.....	260 00

\$25,266 63

3,167 50

Treasurer's Report—Continued.

1892.									
July	1	To interest on Champaign county school bonds.....	\$160 00						
"	1	" " Christian county school bonds.....	120 00						
"	1	" " Champaign county school bonds.....	50 00						
"	1	Kankakee county school bonds.....	1,500 00						
"	1	" " Kankakee county bonds.....						\$11,145 00	
"	5	To amount received from State for taxes on land in Minnesota	\$1,532 99					900 00	
"	5	" " " " buildings and grounds....	2,500 00						
"	5	" " " " laboratories.....	1,500 00						
"	5	" " " " mechanical shops.....	2,000 00						
"	5	" " " " books and publications....	1,000 00						
"	5	" " " " expenses of instruction....	20,000 00						
"	5	" " " " natural science building....	30,000 00						
"	5	" " " " furniture for same.....	5,000 00					63,532 99	
"	9	" " " " State Laboratory of Natural History—							
"	9	" " " " field work and office expenses.....	\$1,500 00						
"	9	" " " " library.....	1,000 00						
"	9	" " " " salaries paid assistants....	3,500 00					6,000 00	
"	18	To amount received on account of architectural department..	\$629 00						
"	18	" " " " mechanical department....	22 35						
"	18	" " " " fuel and lights.....	75 00						
"	18	" " " " chemical laboratory.....	18 03					744 38	
"	18	To interest on land contract No. 18, R. P. Jennings, assignee.	\$51 43						
"	18	" " " " No. 24, Peter Mooney, assignee..	48 00					99 43	
August	1	To interest on Taylorville school bonds.....	\$1,200 00						
"	1	" " Champaign school bonds.....	720 00						
"	1	" " Morgan county school bonds.....	600 00						
"	1	" " Montgomery county school bonds.....	90 00					2,610 00	
"	24	To amount received from State on account of act of Congress, Aug. 30, 1890, for year ending June 30, 1893.....						18,000 00	
"	31	To interest on land contract No. 15, P. A. Moore, assignee.....						48 00	
"	31	To amount received on account buildings and grounds.....	\$28 75						
"	31	" " " " mechanical department.....	265 75						
"	31	" " " " architectural department.....	613 59						
"	31	" " " " agricultural department.....	494 24						
"	31	" " " " horticultural department.....	208 55						
"	31	" " " " laboratories.....	286 13						
"	31	" " " " university fees.....	645 75						
"	31	" " " " preparatory.....	122 50						
"	31	" " " " music fees.....	201 00					2,866 26	
								\$134,380 19	
1892.									
		<i>Cr.</i>							
August	31	By amount paid on account board expense.....	\$817 43						
"	31	" " " " salaries.....	11,936 01						
"	31	" " " " buildings and grounds.....	316 35						
"	31	" " " " fuel and lights.....	447 98						
"	31	" " " " stationery and printing.....	814 46						
"	31	" " " " preparatory year.....	50 00						
"	31	" " " " mechanical department.....	269 18						
"	31	" " " " architectural department.....	1,244 84						
"	31	" " " " agricultural department.....	988 52						
"	31	" " " " horticultural department.....	30 05						
"	31	" " " " military department.....	65 85						
"	31	" " " " laboratories.....	625 68						
"	31	" " " " library and apparatus.....	23 47						
"	31	" " " " incidental expense.....	140 93					317,770 75	
"	31	" " " " water supply.....	\$100 00						
"	31	" " " " furniture and fixtures.....	212 44						
"	31	" " " " accredited schools.....	18 70						
"	31	" " " " commencement.....	344 00						
"	31	" " " " Minnesota lands.....	119 02						
"	31	" " " " premium and interest on bonds.....	515 00						
"	31	" " " " insurance on arms.....	62 50						
"	31	" " " " plans for buildings.....	32 09						
"	31	" " " " art gallery.....	2 75						
"	31	" " " " music.....	19 35						
"	31	" " " " music fees.....	201 00						
"	31	" " " " brick floor.....	171 79						
"	31	" " " " military scholarships.....	60 00						

Treasurer's Report—Concluded.

1892.								
August	31	By amount paid on account	university extension.....		\$108	58		
"	31	"	"	farm barn.	28	55		
"	31	"	"	library cases.	27	55		
"	31	"	"	heating.....	292	69		
							\$2,316	01
				<i>State Appropriations—</i>				
August	31	By amount paid on account	taxes on Minnesota lands.....		\$1,532	99		
"	31	"	"	buildings and grounds.....	453	75		
"	31	"	"	apparatus and materials.....	863	29		
"	31	"	"	mechanical and architect's shops	325	79		
"	31	"	"	books and publications.....	180	20		
"	31	"	"	furniture.....	35	31		
"	31	"	"	cabinets.....	38	19		
"	31	"	"	expenses of instruction.....	942	96		
"	31	"	"	natural science building.....	16,483	02		
"	31	"	"	heating and furniture for nat-				
				ural science building.....	71	00		
"	31	"	"	State Laboratory of Natural				
				History.....	1,824	28		
"	31	"	"	United States fund.....			22,750	78
							2,064	63
				<i>Balances—</i>				
				Current funds.....	\$9,292	36		
				State appropriations.....	59,372	18		
				United States fund.....	20,813	48		
							\$89,478	02
								\$134,380 19

URBANA, Sept. 13, 1892.

JOHN W. BUNN, *Treasurer.*

The treasurer stated that since his last report \$56,200 of the bonds belonging to the endowment fund of the University had been paid off, and that he had purchased other bonds to the amount of \$63,000, bearing five and six per cent. interest, paying therefor a premium of \$3,212.

The board adjourned to meet at the University at 8:30 o'clock Wednesday morning.

SESSION OF WEDNESDAY.

The board met pursuant to adjournment, the same members being present as yesterday.

The business agent, Professor Shattuck, presented his report:

BUSINESS AGENT'S REPORT.

UNIVERSITY OF ILLINOIS, Sept. 13, 1892.

S. A. Bullard, Esq., President of the Board of Trustees, University of Illinois,

SIR:—I have the honor to hand you herewith the financial statements due from me at this time.

Paper A gives the current appropriations and receipts for the three months ending Sept. 1, 1892.

Paper B is a showing of the State appropriations, Sept. 1, 1892.

Paper C is a similar one for the United States fund.

Paper D is a list of vouchers presented for audit, being 701 to 1,075 inclusive.

Paper E is an estimate of current receipts and expenses for the twelve months ending Sept. 1, 1893.

Paper F is a similar one for the three months ending Dec. 1, 1892.

The board is requested to appropriate the sums given under the head of expenses, for the purposes named.

It is also requested to make the following assignments:

From the State appropriations—

Buildings and grounds, general repairs.....	\$400 00
Mechanical and architectural shops, instruction, and materials..	510 00
Books and publications, books and periodicals.....	800 00
Expenses of instruction, salaries.....	9,000 00

From United States fund—

For instruction, salaries.....	9,000 00
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Paper G is a report on the expenditure of the \$1,000, State appropriation, for books and periodicals.

Respectfully submitted,

S. W. SHATTUCK,

Business Agent.

PAPER A—CURRENT APPROPRIATIONS.

June 7 and June 27.	Appropriated.	Receipts also appropriated.	Expended.	Balance.
Board expense.....	\$583 87		\$817 43	.....
Salaries for instruction.....	11,890 88		10,839 88	.....
Salaries for services.....	1,101 50		942 69	\$107 99
Buildings and grounds.....	400 00	\$23 75	1,096 13	5 37
Fuel and lights.....	1,000 00	75 00	447 98	112 40
Stationery and printing.....	1,200 00		447 98	627 02
Mechanical department.....	200 00	288 10	814 46	385 54
Architectural department.....	200 00	1,243 59	269 18	218 92
Agricultural department.....	200 00	494 24	988 52	198 75
Horticultural department.....	100 00	208 55	30 05	278 50
Military department.....	100 00		65 85	34 15
Laboratories.....	750 00	304 16	625 68	428 48
Library and apparatus.....	50 00		23 47	26 53
Incidentals.....	250 00		140 93	109 07
<i>Sundries.</i>				
Water supply.....	100 00		100 00	.....
Furniture and fixtures.....	400 00		212 44	187 56
Gymnasium.....	50 00			50 00
Minnesota lands.....	200 00		119 02	80 98
Brick floor, etc.....	200 00		171 79	28 21
Farm barn.....	941 43		28 55	912 88
Sketches of buildings.....	32 09		32 09	.....
Commencement.....	330 89		344 00	.....
Art gallery repairs.....	18 15		2 75	15 40
University extension.....	351 69		108 58	243 11
Premium and interest.....	515 00		515 00	.....
Military scholarships.....	60 00		60 00	.....
Heating.....	292 69		292 69	.....
Library cases.....	150 00		27 55	122 45
Music.....	19 35		19 35	.....
Insurance of arms.....	62 50		62 50	.....
Accredited schools.....	100 00		18 70	81 30
Music fees.....		201 00	201 00	.....
Preparatory year fees.....		122 50	50 00	72 50

PAPER B—STATE APPROPRIATIONS.

	Received.	Expended.	Balance.	Assigned.
Taxes on Minnesota lands.....	\$3,044 23	\$3,044 23	.....	.....
Buildings and grounds.....	5,000 00	2,953 75	2,046 25	596 25
Apparatus and material.....	3,000 00	2,054 50	945 50	361 21
Mechanical and architectural shops.....	4,000 00	2,000 00	2,000 00	226 21
Books and publications.....	2,000 00	1,180 20	819 80	19 80
Cabinets.....	500 00	183 94	316 06	316 06
Expenses of instruction.....	40,000 00	20,000 00	20,000 00	1,000 00
Heating Military Hall.....	3,500 00	3,030 86	469 14	469 14
Natural History Hall.....	60,000 00	44,984 42	15,015 58	15,015 58
Heating and furniture for same.....	10,000 00	71 00	9,929 00	9,929 00
Metallurgical laboratory.....	4,000 00	3,953 25	46 75	46 75
Total.....	\$135,044 23	\$83,456 15	\$51,588 08	\$27,980 00
Illinois State Laboratory of Natural History.....	15,650 27	7,866 17	7,784 10	2,659 48

PAPER C—UNITED STATES FUND.

	Received.	Expended.	Balance.	Assigned.
<i>Year Ending June 30, 1890.</i>				
Before reported on.....	\$13,000 00	\$13,000 00	.....	.....
Natural history.....	2,000 00	1,566 78	\$433 22	\$433 22
Total.....	\$15,000 00	\$14,566 78	\$433 22	\$433 22
<i>Year Ending June 30, 1891.</i>				
Before reported on.....	\$11,810 00	\$11,810 00	.....	.....
Architectural department.....	1,430 00	1,207 84	\$222 16	\$222 16
Geological laboratory.....	60 00	44 42	15 58	15 58
College of engineering.....	700 00	653 61	41 39	41 39
Library.....	2,000 00	2,000 00	.....	.....
Total.....	\$16,000 00	\$15,720 87	\$279 13	\$279 13
<i>Year Ending June 30, 1892.</i>				
Before reported on.....	\$12,307 00	\$12,307 00	.....	.....
Library.....	2,000 00	738 60	\$1,261 40	\$1,261 40
Architectural department.....	233 00	154 37	78 63	79 63
Mechanical department.....	1,100 00	1,003 40	96 60	96 60
Civil engineering department.....	260 00	228 52	31 48	31 48
English literature.....	150 00	30 23	119 77	119 77
Chemical department, desks.....	350 00	108 04	241 96	241 96
Metallurgical laboratory.....	100 00	.....	100 00	100 00
Physical laboratory.....	500 00	328 71	171 29	171 29
Total.....	\$17,000 00	\$14,898 87	\$2,101 13	\$2,101 13
Year ending June 30, 1893.....	\$18,000 00	.....	\$18,000 00	.....

PAPER F—STATEMENT OF THE STATE APPROPRIATION FOR BOOKS AND PUBLICATIONS, FOR THE YEAR 1891-92.

Warrant No.	To whom.	For what.	Amount.
15	C. Schoenhof.....	Books.....	\$1 19
16	School of Mines.....	Subscription 1891-92...	2 00
17	McDonald Bros.....	Books.....	5 00
18	A. E. Foote.....	".....	1 30
19	A. C. McClurg & Co.,.....	".....	2 63
179	S. H. Penbody.....	".....	30 75
180	Publishers' Weekly.....	Am. Catalogue.....	5 00
181	McDonald Bros.....	Books.....	5 00
182	O. G. Francis.....	".....	3 31
183	J. R. Greenhalgh.....	".....	2 00
215	A. C. McClurg & Co.....	".....	3 16
223	B. F. Stevens.....	".....	8 27
288	D. H. Lloyd & Son.....	".....	2 10
415	McDonald Bros.....	".....	2 50
525	D. H. Lloyd & Son.....	".....	264 70
538	L. M. Haupt.....	Pamphlets.....	2 45
550	Kenyon News Co.....	Subscriptions 1892.....	347 65
663	D. H. Lloyd & Son.....	Books.....	13 70
669	A. C. McClurg & Co.....	".....	12 00
794	The Gazette.....	Binding.....	221 35
932	Ginn & Co.....	Books.....	2 00
933	D. H. Lloyd & Son.....	".....	61 94
.....	Total.....	.....	\$1,000 00

BUILDINGS AND GROUNDS.

The following report was received from the committee on buildings and grounds.

To the Board of Trustees of the University of Illinois.

GENTLEMEN: Your committee on buildings and grounds desires to make the following report:

Since the adjourned meeting of the board in June the committee has had plans and specifications made for the heating apparatus, the gas-piping, and the plumbing work for Natural History Hall, called for proposals for the work, and let the contracts therefor.

The first plans for heating and plumbing had to be revised and reduced in order that the cost of the building might not much exceed the appropriation for its construction. The architect now estimates that the total work will exceed the appropriation about \$2,500. As the cost of providing a way of heating the Chemical Laboratory and of permanently improving the heating apparatus of University Hall is included in this expense, it is proper to deduct from this excess the amount of the cost of this unusual work which the architect estimates at \$1,500. This would leave a balance of \$1,000, to be taken from the other funds, which we hope you will be able to provide so that the work may not be delayed in its completion.

The contractor reports that he will have the rooms of the main floor of the building done in a few days so that they may be occupied by classes. The building will be fully completed sometime in October. We expect to put the grounds in order, and to have some temporary walks laid as soon as the building can be occupied.

We append the report of Prof. Ricker, architect, and desire to make it a part of our report.

Your committee has carefully considered the plans for the three proposed new buildings, with the estimates thereon, submitted by Professor Ricker at our last meeting, and recommends that the consideration of the Museum and the Engineering Hall be presented to the coming legislature, and that appropriations be asked for their erection. The gen-

eral plans of these buildings, as drawn, are ready for your approval, the plan being that in interior finish and construction they each be similar to Natural History Hall.

We ask that if you concur in our recommendation you enable us to prepare the drawings of the buildings in a suitable manner for presentation to the legislature.

The bath room for the gymnasium has been designed satisfactorily to Mr. Hall, the instructor in athletics, and to the officers of the Athletic Club, and will soon be put in ready for use.

Respectfully submitted,

S. A. BULLARD, }
ALEX. McLEAN, } *Committee.*
N. W. GRAHAM, }

September 14, 1892.

ARCHITECT'S REPORT.

UNIVERSITY OF ILLINOIS, Sept. 13, 1892

To the Committee on Buildings and Grounds of the Board of Trustees,

GENTLEMEN: I beg leave to present the following report as architect of Natural History Hall:

GAS-FITTING.

Bids for gas-piping the building were received and opened July 11th:

Maltby & Wallace, Champaign, Ill.....	\$367 00
Robinson & Burr, Champaign, Ill.....	374 00
Hubbard & Son, Urbana, Ill.....	572 00

In accordance with instructions from the chairman, and because their proposed system of piping appeared to me preferable to that of Maltby & Wallace, I awarded this contract to Robinson & Burr July 16th at \$379, comprising \$5 additional for enlarging main from street to building from 1½ to 2 in., as recommended by the foreman of the gas company.

LIFT.

A single bid for the lift was received from the Peoria Elevator Works, though the drawings and specifications had been sent to several parties. The contract was therefore awarded to the Peoria Elevator Works at \$130 for a lift set in place and complete, capacity 800 lb. This contract has since been satisfactorily completed, the lift accepted, and the final certificate given.

BOILERS AND HEATING.

July 30th, the bids for new boiler, and for steam heating of Natural History Hall, complete, with steam main and return to Chemical Laboratory, were received and opened, as follows:

For Two New Boilers.

Springfield Boiler & Manufacturing Co., Springfield, Ill, two boilers, f. o. b., Urbana, Ill.....	\$1,900 00
Cartage and setting same.....	1,050 00
Total.....	\$2,950 00
Maltby & Wallace, Champaign, Ill., two boilers, f. o. b., Urbana, Ill.....	\$1,862 00
Cartage and setting same.....	850 00
Total.....	\$2,712 00

Robinson & Burr, Champaign, Ill., two boilers complete and set...	\$2,886 00
Cross connection of boilers and main, extra.....	178 00
For boilers punched and riveted, deduct.....	200 00
J. M. Rippey, Springfield, Ill., two boilers and setting same, complete.....	\$4,059 00

For Steam Heating of Natural History Hall.

Mains, returns, connection with Chemical Laboratory, heating all four stories:

Robert Clark, Peoria, Ill.....	\$7,500 00
Maltby & Wallace, Champaign, Ill.....	8,109 00
Robinson & Burr, Champaign, Ill.....	8,271 92
J. M. Rippey, Springfield, Ill.....	9,200 00

After careful consideration of these bids with your chairman, it was decided to reject all bids received for boilers and heating, for the reason that if the contracts were let at even the lowest figures, the cost would much exceed the appropriations available therefor.

The cost was reduced as much as possible by omitting all the steam heating in the third story and basement, except in the end entrance halls and in rooms occupied by the Agricultural Experiment Station, also in central hall in second story, and in store, dark, and clothes rooms in first and second stores, thus limiting the heating to the rooms actually indispensable. The plumbing was likewise limited to the same rooms as the heating. It was further decided to put in but one new boiler, which would be sufficient for Natural History Hall and the Chemical Laboratory in mild weather, and to connect the electrical engineering boiler with this, so that the two could be used together in very cold weather.

New bids for one boiler, for the amended steam heating, and for the plumbing, were asked, and these were received and opened on Aug. 12th, as follows:

For One New Boiler, as Specified.

Springfield Boiler & Manufacturing Co., one new boiler.....	\$950 00
Setting same.....	550 00
Total.....	\$1,500 00
Or for their standard boiler.....	\$750 00
Setting same.....	550 00
Total.....	\$1,300 00
Robert Clark, Peoria, Ill., one boiler and setting.....	\$1,400 00
Robinson & Burr, Champaign, Ill., one boiler and setting.....	1,390 00
Maltby & Wallace, Champaign, Ill., one boiler and setting.....	1,423 00

Steam Heating Natural History Hall.

Robert Clark, Peoria, Ill.....	\$5,900 00
Robinson & Burr, Champaign, Ill.....	5,676 36
If return pipe be boxed and covered, extra.....	300 00
Maltby & Wallace, Champaign, Ill.....	5,698 00

FOR PLUMBING NATURAL HISTORY HALL.

But one bid was received, though these bidders expected to compete against others, and made a low and satisfactory price for a good job:

Robinson & Burr, Champaign, Ill.....	\$1,645 53
For Nelson's syphonia closets, extra.....	50 00

Aug. 16th the contracts for boiler and for plumbing were awarded to the lowest bidders, Messrs. Robinson & Burr, by direction and advice of your chairman, who was not present at the opening of the bids, but was informed of their amounts.

In regard to the contract for steam heating, I regret to say that considerable feeling has been manifested. Robinson & Burr, after the opening of the bids, made the following additional propositions on the same day:

1. To substitute boxed wrought iron returns for the specified cast iron returns, not boxed but buried in the ground and at same price.
2. To use indirect radiators in two sections with separate valves, so that either section may be shut off in mild weather.
3. To put in risers and returns up to third floor, so that radiators might be put in on that floor at small cost, when required.

August 17th Mr. Wallace submitted a proposition, protesting against the award of this contract to Robinson & Burr, for the following reasons:

1. That the offer to substitute boxed wrought iron returns for unboxed cast iron returns was, in effect, a reduction of the amount of their bid by \$180.
2. That pin radiators are much less expensive than box coils for indirect heaters.
3. That I permitted Robinson & Burr to use pin radiators after refusing to allow Maltby & Wallace to use them. [Mr. Wallace is certainly in error on this point, or misunderstood me, for I have no recollection of having made any such decision, and I have tried to treat all bidders with perfect fairness and justice.]
4. If allowed to use pin radiators, Mr. Wallace proposed to reduce the amount of his bid by (I think) \$500.

These supplementary proposals were immediately communicated to your chairman, who directed me to make the award of the contract for steam heating, in order to save time, as a meeting of the committee could not be had for some two weeks. I accordingly awarded the contract on the following basis:

1. All bids and proposals received after the time fixed for opening bids were rejected.
2. The contract was then awarded to the lowest bidders, Robinson & Burr, without entering into a discussion of the relative merits of the different systems proposed.

Mr. Wallace has expressed considerable dissatisfaction with my action, claiming that box coils cost considerably more than pin radiators, and were more efficient in indirect heating.

I have no doubt that box coils do cost more than pin radiators, but still, I consider that the system proposed by Robinson & Burr, is preferable to that presented by Maltby & Wallace, if their relative merits are examined.

1. By experiment, pin radiators emit more heat per square foot than box coils, $8\frac{1}{2}$ square feet being equal to 10 of pipe surface.
2. All required heating surfaces in the principal rooms can be packed as pin radiators into the indirect heaters, thus avoiding any need of direct steam radiators set against the internal or external walls of the rooms, where they would be in the way and interfere with the arrangement of the furniture.
3. If Robinson & Burr choose to change cast iron returns to wrought iron and box them, it is my duty to accept the proposition, as being to the manifest advantage of the University.

Contracts for heating, plumbing and boiler, have accordingly been drawn and executed.

Since the contract for the building left only about \$11,500 available for all other purposes, it is sufficiently evident that there must be a deficiency of several thousand dollars, to be provided from other sources, if the building is to be occupied at all during the current year.

According to the statement made by the business agent of the University, the payments made previous to Sept. 1, 1892, on account of Natural History Hall, amount to \$44,984.43.

Certificates have since been issued and are unpaid, as follows:

T. R. Leal, excavation for coal house.....	\$71 00
S. P. Sutton, salary for August as superintendent.....	100 00
V. Jobst, building, for August.....	5,853 60
Robinson & Burr, gas-piping for August.....	140 00
Peoria Elevator Works, for lift.....	130 00

Total..... \$6,294 60

Under existing contracts, there are the following additional liabilities:

V. Jobst, balance for building.....	\$10,228 83
V. Jobst, extras on building, say.....	500 00
Robinson & Burr, plumbing.....	1,645 53
Robinson & Burr, balance gas-piping.....	239 00
Robinson & Burr, boiler and setting.....	1,390 00
Robinson & Burr, steam heating.....	5,676 36
S. P. Sutton, say 2 mo. salary.....	200 00
Grading grounds, say.....	150 00
Gas fixtures, say.....	250 00
Architect, balance of 3 per cent. on \$70,000.....	750 00

Total.....\$21,029 72

Summary:

Payments already made.....	\$44,984 42
Certificates unpaid, issued after Sept. 1st.....	6,294 60
Liabilities and requirements.....	21,029 72

Total.....\$72,308 79

One-third of the cost of the new boiler and of the steam main and return in the ground, and the whole cost of main branch and return to Chemical Laboratory is properly chargeable to the Chemical Laboratory, and not to the appropriations for Natural History Hall. This would probably lessen the excess over appropriations by \$1,500, leaving an excess of only \$800, properly considered.

Strict economy has been my aim in the erection and completion of the building, and no changes have been made during the progress of the work, or extras incurred, except when absolutely necessary, or urgently demanded by the professors who are to occupy the building. The contracts have also been let at as low a figure as possible, to secure good materials and workmanship.

Owing to delays in letting contracts for heating, it was found necessary to extend the time limit for contracts to October 1st, with the proviso that all work in the building must be done so as not to interfere with the use of the building for class purposes.

On account of the exceedingly unfavorable weather during the spring months, the completion of the building has been delayed, although the contractor has pressed the work as rapidly as possible under the circumstances.

Very respectfully submitted,

N. CLIFFORD RICKER,

Architect.

MINNESOTA LANDS.

The committee on sale of lands in Minnesota reported as follows:

To the Board of Trustees of the University of Illinois.

GENTLEMEN:—Your committee reports that Professor Shattuck visited the university lands in Pope county last month in order to close up some pending matters and to learn how existing conditions would probably affect land sales and what, if any, changes should be made in prices.

The SW quarter of section 24-124-36, title to which was recently secured from the government, has been sold for \$15 an acre, and as the sale was made to a man who had secured a tax title, which, though undoubtedly of no legal validity, was yet likely to make trouble, the sale is regarded as very fortunate.

The wheat crop in Pope county is but one-half or two-thirds of last year's crop, so most likely the sale of land will be less the coming year.

It will be seen that the price of more than two-thirds of the land sold has been \$15 an acre.

The sales have been as follows:

No.	Date 1892.	Name.	Description.	No. acres.	Price per acre.	Whole price.	Cash paid.
100	June 1	O. O. Halvorson....	SW NE 11-123-36	40	\$12 56	\$500 00	\$125 00
101	"	Nicholas Bengston..	N½ NE 10-117-35	80	15 00	1,200 00	180 00
102	"	Ludvig Stalman.....	NE NE 3-123-36	38.32	12 50	479 00	99 00
103	" 16	Tollef E. Natten.....	NE SW 21-124-36	40	12 50	500 00	125 00
104	" 19	Knnud Halvorsen....	NW NE 3-123-36	38.37	12 50	479 63	119 63
106	" 24	Peter Teden.....	S½ SE 26-125-36	80	15 00	1,200 00	300 00
107	July 1	T. D. Davidson.....	SW 24-124-36	160	15 00	2,400 00	560 00
108	June 9	P. E. Olsen.....	{ N½ } NE 2-124-36	116.75	15 00	2,251 25	522 25
			{ SE }				
			{ SW }	NE 2-124-36	40			15 50
				633.44		\$9,009 88	\$1,834 88

Respectfully submitted,

S. A. BULLARD,
S. W. SHATTUCK, } *Committee on Minnesota Lands.*
W. L. PILLSBURY, }

The executive committee of the faculty reported the following revision of the rules for the government of the students of the University:

RULES FOR GOVERNMENT OF STUDENTS.

These rules are to be taken, not as arbitrary regulations, but as the normal laws of the University, necessary to its organization and operation as an institution. Every student of the University is, therefore, bound both by reason and by loyalty to observe these laws, upon which depends the free and healthy action of the institution whose benefits he seeks.

In connecting himself with the University, the student neither loses the rights nor escapes the responsibilities of the citizen.

REGISTRATION, PAYMENT OF FEES.

The two days preceding class formations at the beginning of each term shall be known as registration days. At this time each student shall file with the regent a list of studies desired for the term and will receive a class card. Delays in registration will be treated as absences. Delayed applications for registration must be accompanied with a specific statement showing reasons for not registering at the proper time.

Students may not enter classes without a class card or its temporary equivalent. Class cards must be presented to the business agent for endorsement within ten days after they are issued by the regent.

No student not matriculated may be permitted to pursue university studies beyond one full year; provided that this restriction shall not apply to special students.

ABSENCES.

Students who desire to be absent from any duty should obtain permission for such absence from the proper officer or instructor; if circumstances prevent application for such permission, they shall offer their excuses for absence immediately upon their return to duty.

Students who desire to be absent from the University must apply to the regent for leave.

DISMISSIONS.

Students who have maintained a good character for faithful study and correct deportment, and who have paid all their University dues, may at any time ask and receive an honorable dismission; and if any such student has attended the University for one or more years, he shall be entitled to receive, with his dismission, a certificate stating the studies he has pursued and the standings he has obtained.

STUDIES, EXAMINATIONS, PROMOTIONS.

All studies in the university courses are free to matriculated students. Each student may choose and pursue such as he may desire, subject to such conditions as to preparation, times of study, and number of studies as may be necessary to secure efficiency in classes and economy in teaching.

That the time of students may be fully employed, each person is required to pursue three studies; he may not have less or more without permission of the faculty. Permission to take a fourth study will not be given if the average for the term next preceding has fallen below 90 for three studies, and 85 for four studies. (The required themes and elocution and military study and drill are not included here.) Change of studies during a term may not be made without permission of the regent.

In accordance with the provisions of the act of the legislature of 1873, the trustees require that each student shall take, each term, one study at least from the following list:

Mathematics, descriptive astronomy, physics, meteorology, chemistry, mineralogy, geology, botany, zoölogy, entomology, physiology, biology, anthropology, agriculture veterinary science, horticulture, mental science, logic, political economy, art and design, general engineering drawing, theoretical and applied mechanics, mechanical engineering, electrical engineering, civil engineering, municipal and sanitary engineering, mining engineering, architecture, military science—class room work, history and English.

Examinations on studies of the term will be held at the close of each term. A standing of 75 on a scale of 100 is required to secure a credit for any study.

A student who receives a mark below 75 and not less than 60 in one study is *conditioned* and may have a re-examination within three months by making application to the instructor within ten days of notification of standing.

A mark below 60 in any one study, or below 75 in two or more studies, constitutes a *failure*, and the student may not proceed with any studies without special permission of the faculty.

A student who has pursued a study with a class in the University and has been absent from regular examinations for satisfactory reasons, may be examined by the professors at their discretion.

Special examinations, not provided for as above, will not be held except by permission of the faculty.

Examination of the senior class upon subjects pursued in the spring term must be completed one week before the end of that term.

The classification of students by years will be made in the regent's office at the end of each year upon the number of credits earned, and will be revised, as may be necessary, at the beginning of each term and at no other time.

Studies in the university courses, pursued at other institutions or privately may not be credited, except by vote of the faculty.

LIBRARY.

The library will be open for use during term time from 8 A. M. to 5 P. M. each week day, except Saturday, when the time will be from 8 A. M. to 12 M.

Students will not go behind the railings or take books from the shelves except on permission of the librarian, but will apply to the attendants for books desired.

Reserved books will not be delivered to any students except those who require the same in their studies.

Lexicons and text-books will not be given out for ordinary use in the study of lessons.

All books, pamphlets, or papers, must be returned to the attendants before the student using them leaves the room, except as hereafter provided. Students failing in this will forfeit the privileges of the library.

No student will take books, pamphlets or papers from the library hall; except that bound volumes may be taken upon the written order of an instructor.

Any student injuring or losing any book or paper will pay the cost of the same or the damage to the set or series to which it belongs.

UNIVERSITY BUILDINGS AND PROPERTY.

The university buildings are to be closed at 6 P. M., and no room may be used at a later hour without permission from the professor in charge or the regent.

Each student is expected to have a careful regard for the general neatness and good order of the buildings and grounds of the University.

Any student willfully or carelessly injuring the property of the University is expected to pay for its replacement or repair.

□ Smoking is not permitted in any of the public buildings of the University.

ORDER AND DISCIPLINE.

Attendance on the regular class exercises and the observance of good order in the buildings and on the grounds of the University are the duty of every student; and their enforcement is the duty of every member of the faculty.

Notice to the student of delinquencies in conduct or attendance, of a kind or frequency to injure seriously either the student or the University will be given in the form of personal warnings, according to regulations established by the faculty.

If a second warning becomes necessary within a year after the first, notice will be sent to the parent or guardian also; and a third within a year of the second brings the student before the faculty for discipline.

For aggravated offenses, or for those specially injurious to the University, this disciplinary process may be indefinitely abbreviated.

SOCIETIES AND MEETINGS.

No society or association may be organized among the students of the University without permission of the faculty, or no change in the character or regulations of such society or association may be made without such permission.

The faculty reserves the right to withdraw its authorization from any society of students, if, in the judgment of the faculty, the well-being of the University requires such action.

No special meeting of students' societies or associations, or any public meeting of students, may be held during the hours devoted to the regular exercises of the University, or in the rooms of the University, except upon permission obtained from the regent.

The trustees authorize the heating and lighting of rooms specially assigned to the recognized university societies and associations, but for their regular meetings only.

Meetings of societies occupying university rooms must close at 11 p. m. during September, October, March, April, May, and June; at 10:30 p. m. during November, December, January, and February.

The times for all public entertainments or exhibitions must be fixed, with the consent of the faculty, at least two weeks beforehand; and all programs for the same must be submitted to the committee of the faculty on public exercises and receive their approval.

The junior class will give a public exhibition under supervision of the committee on public exercises at such time as the faculty may direct; the seniors may give class-day exercises during the commencement week.

No publication may be issued by students or by classes or societies, in the name of the University, without permission of the faculty. The faculty committee on advertisement and publications is charged with the general supervision of such publications.

MILITARY DEPARTMENT.

Military instruction at the University is not a matter of choice with the students or with the authorities; it is a matter of law. The congress of the United States and the legislature of Illinois have made it a special and imperative feature in the charter laws of this institution—an obligation in return for the advantages of free education.

The following rules shall govern the military duties so imposed:

Every male student shall study *United States Drill Regulations for Infantry*, and shall recite upon the same once a week until he passes two creditable term examinations; and every male student not excused by the faculty on account of physical disability, or other sufficient cause, shall have military drill twice a week until he obtains six creditable term records. Those selected as officers shall continue recitations during their term of service.

The class room instruction and the drill practice shall begin for each student as soon as practicable after he enters the University; provided, that students in the preparatory classes, carrying no freshman studies and not expecting to matriculate during the year, shall not be thus enrolled.

The study of the United States drill regulations and military science shall be subject to the same rules in regard to recitations, examinations, and standing as other University studies.

Drill practice shall count 100 if every drill is attended and all duties well and faithfully performed. Absence, lack of promptness and attention, disobedience, improper uniform, etc., shall detract from this maximum standing. Any student falling below 75 fails to pass, loses all credit for the entire term, and may not proceed with other studies except by special permission of the faculty.

Standings in study and drill shall be placed on record, with other class credits. The entire course of study and drill as prescribed shall count as two full class credits of which the two terms of recitation and drill may count one and the four remaining terms of drill as the other.

Officers of the battalion shall be nominated by the professor in charge, and confirmed by the faculty. All students having passed two term examinations in class room military instruction, and having gained two term credits in drill practice, shall be eligible for corporals; those having three term credits in each shall be eligible for sergeants, and those having six term credits in each shall be eligible for lieutenants and for officers of higher rank.

Proficiency and capacity in the military department shall be the basis of promotion in the battalion, *provided*, that any serious college censure shall disqualify in this respect.

The professor of military science, with the approval of the faculty, may relieve or dismiss any officer or non-commissioned officer, or appoint others than those specified above to positions in the university battalion when the good of the service may require it.

Special military scholarships shall be created, good for one year, to which shall be attached a money value of twenty-two and one-half dollars. Students attaining the rank of commissioned officers shall be eligible for these scholarships, and one scholarship shall be awarded to each such officer serving in the battalion, one-third its value to be payable at the close of each university term.

During the spring term the faculty shall appoint a committee which shall examine candidates for nomination to the governor of the State, to receive commissions in the state militia. This examination shall be upon the theoretical studies pursued in the military classes and the practical work taught at this University. Candidates for this examination must be members of the senior class in full standing at the time thereof; must have completed the course of military studies; must have served three terms as captains or lieutenants; and must be approved by the faculty, as having good reputations as scholars, officers, and gentlemen.

The uniform shall be of cadet gray with black cloth trimming; cut and form in accordance with United States regulations; members of the band to wear the usual trimmings.

The commissioned officers shall wear the uniform of officers of same grade in the National Guards. All shall wear the university badge on the cap.

Uniforms must be procured within one month after entering upon military duty.

A suitable number of students may be assigned by the professor of military science to be musicians, and every full term of such service as musicians shall count for one term of drill.

The band instruments belonging to the University are for use in practice, drill, and other college exercises: they may be used for other purposes by special permission only. Members of the band shall receipt for their instruments and be liable for any damages. At the close of each spring term the instruments shall be turned over to the business agent and receipts returned.

GYMNASIUM.

The gymnasium will be open at such times as the faculty may direct.

No use may be made of the hall or of the apparatus for gymnastic purposes, exercises, or games, at times other than those assigned by the faculty for such uses, unless by special permission.

The instructor in charge will see that order is preserved in the hall during class hours.

Students excused from drill for physical disability will not be allowed to exercise in the gymnasium, except by special permission of the faculty.

All students must provide themselves with gymnasium slippers.

The use of tobacco in the hall is prohibited.

Damage to apparatus will be charged to the person or persons causing it.

THE ILLINI.

The control of the *Illini* on the part of the students of the University shall be vested in a committee of students to be called the *Illini Board*, to be elected by the students in accordance with the regulations approved by the faculty. Copies of these regulations may be had at any time in the regent's office.

SUSPENSION OF RULES.

These rules, or any of them, may be temporarily suspended, as to special and unusual cases; by vote of three-fourths of the members of the faculty present at any authorized meeting.

ADOPTED BY THE FACULTY AND APPROVED BY THE TRUSTEES.

The committee which was appointed to compile the by-laws of the Board reported as follows:

To the Board of Trustees of the University of Illinois.

GENTLEMEN: Your committee appointed to compile the by-laws of the board of trustees, has been over the proceedings of the board since the printed by-laws, now in use, were approved in 1880, and presents the following as the by-laws of the board now in force:

BY-LAWS.

I. MEETINGS OF THE BOARD.

SEC. 1. All meetings of the board of trustees shall be held at the University, in Urbana, unless otherwise ordered and a majority of the members of the board shall constitute a quorum.

Sec. 2. The board shall hold an annual meeting the second Tuesday of March, and other meetings as often as once in three months at such times as the board may designate.

Sec. 3. Special meetings may be called, whenever necessary, by the president or any two members of the board, by mailing to each member of the board at least five (5) days before the meeting a notice of the call. *Provided*, that in such notice the business to be attended to at such meeting shall be specified.

II. ORDER OF BUSINESS.

SEC. 1. The business of each meeting shall be conducted in the following order:

1. Calling the roll of members.
2. Reading, corrections and approval of minutes of last meeting.
3. Election of officers.
4. Report of regent and other officers.
5. Reports of committees.
6. Communications, petitions and memorials.
7. Unfinished business.
8. New business.

III. RULES OF DEBATE.

SEC. 1. In the discussion and the disposal of business, the board shall be governed by the parliamentary rules and usages usually governing deliberative bodies.

SEC. 2. Every resolution offered shall be reduced to writing before it shall be finally acted upon.

IV. OFFICERS AND APPOINTEES.

SEC. 1. The officers of the board shall consist of a president, vice president, treasurer, corresponding secretary and recording secretary, and the board may from time to time appoint such professors, tutors and instructors, and such subordinate officers and employes as they may deem necessary to carry on the institution.

V. TERM OF OFFICE.

SEC. 1. The treasurer and regent shall be elected at each biennial meeting and shall hold their offices for two years and until their successors are duly elected and qualified.

SEC. 2. The corresponding and recording secretaries shall be elected at each annual meeting, and shall hold their offices for one year and until their successors are duly elected and qualified.

SEC. 3. Professors and assistant professors shall hold their positions during the pleasure of the board of trustees; other officers and employes shall be appointed at such time, in such manner, and for such term as the board shall by resolution in each case direct and be subject to removal at the pleasure of the board.

VI. TREASURER.

SEC. 1. The treasurer shall give bonds in such amount and with such security as the board of trustees shall deem amply sufficient to guard the University from danger or loss or diminution of the funds entrusted to his care; *provided*, such bond shall at no time be less than \$300,000.00. He shall be custodian of all the moneys and securities belonging to the University. He shall invest the funds of the University as directed by the board, and he shall pay no money out of the treasury except upon a warrant of the president of the board, countersigned by the recording secretary. He shall also annually, and oftener when required, make a detailed report to the board of all the receipts and disbursements since making his last report.

VII. CORRESPONDING SECRETARY.

SEC. 1. The corresponding secretary shall perform the duties indicated and required by the act creating his office, and shall hold his office at the University.

VIII. RECORDING SECRETARY.

SEC. 1. The recording secretary shall perform the duties required of him by law and usually appertaining to his office. He shall keep the books and papers belonging to his office at the University, in Urbana, and the same shall be open to inspection by any member of the Board, or officer of the University. He shall be clerk of the executive committee and reside at or near the University.

SEC. 2. He shall countersign all warrants on the treasurer and note on each the appropriation of the board or executive committee authorizing the issue of the same.

IX. PRESIDENT, REGENT AND PROFESSORS.

SEC. 1. It shall be the duty of the president to preside at all meetings of the Board and of the executive committee, sign warrants for all accounts properly audited and allowed, and to communicate to the regent all votes, orders, or resolutions of the board, in reference to the management and control of the University. It shall be the duty of the vice president, in the absence or other disability of the president of the board, to perform all the duties of the president, as above set forth, in as full and ample a manner as said president.

Sec. 2. The regent shall be charged with the supervision of the educational facilities and interests of the University, and to that end shall recommend from time to time to the consideration of the board such means as he shall deem necessary and expedient. He shall have, under the direction of the board or its executive committee, general supervision of all the departments in the University and the officers therein, and shall, at the request of the board, recommend all professors, instructors and assistants of the institution that may from time to time be found needful. He shall report in full in writing to each regular meeting of the board of trustees what has been done in the several departments of the University since its last regular meeting, together with any recommendations as to the future requirements of the University in such departments as to him may seem needful.

Sec. 3. The business agent shall report to the regent at least one day before the regular meetings of the board, and at such other times as he may require, the financial condition of the University.

Sec. 4. All professors and instructors shall report in writing to the regent, or in his absence to the vice president of the faculty, at least five days before the regular meeting of the board, and at such other times as may be required, the number of classes taught, the number of students in each class, and the number of hours spent in actual teaching by each professor or instructor respectively, and shall also state in writing what is actually needed to make their respective departments more effective in the way of instruction.

Sec. 5. The professors of agriculture and horticulture and the mechanic arts shall have charge of the employes in such departments, and such employes shall report their doings to said professors, who shall embody said reports with their own to the regent.

X. BUSINESS AGENT.

SEC. 1. The business agent shall keep all business books of the University and do its business correspondence. He shall keep, or cause to be kept, the books of accounts of the several departments. He shall make all the purchases for the University; but no purchases shall be made except upon requisition from the heads of the departments, or such as may be ordered by the trustees; *Provided, also*, that all purchases must first be authorized by the trustees.

Sec. 2. In case of necessity for immediate purchases, the business agent will make them, but within the limit of \$50 for any one month, the same to be reported to the trustees at their next meeting. Purchases of material for commercial work of the machine shops may be made if immediate returns are to be received, the same also to be reported to the next meeting of the trustees.

Sec. 3. He shall aid the heads of departments in effecting such sales as may be authorized by the trustees. He shall aid the treasurer, when required by said treasurer, in making collections of all fees, rents and other dues or debts due the University, and do such other business as may from time to time be entrusted to him.

□ Sec. 4. He shall keep the president of the board, the trustees and the regent informed of the state of finances and business affairs of the University, presenting at the meetings of the board, or when called for, a statement of all collections and expenditures in the several departments.

XI. SALARIES.

SEC. 1. The salary of each officer, professor, instructor, or other employes of the University shall be fixed by resolution at the time the appointment is made, subject to alteration in the discretion of the board, and a warrant shall be drawn for the same according to law, on the treasurer, as the same shall fall due: *Provided*, there are funds in the treasury to pay the same. Salaries shall be payable monthly.

XII. DUTIES OF EXECUTIVE COMMITTEE.

SEC. 1. The executive committee shall meet whenever it finds a meeting necessary for the transaction of any business that must be done during the vacation of the board.

Sec. 2. The executive committee shall, for the purposes for which it was appointed, possess all powers of the board; *provided* that it shall not revise or charge the acts of the board, nor act upon matters referred to any committee of the board that may be entrusted with any special business; shall not purchase or sell real estate, or bonds belonging to the University, without the consent in writing of a majority of all the members of the board, and shall be strictly confined to such business as cannot be left till the quarterly meetings of the board.

Sec. 3. The committee shall hold office till the annual meeting next after its appointment, and shall submit the minutes of its proceedings, or make a report through its chairman to every meeting of the board, of all its transactions since the last meeting of the board.

XIII. AMENDMENT—REPEAL.

Sec. 1. These by-laws may be repealed or amended at any meeting of the Board, by a vote of a majority of all the members of the board.

Sec. 2. All prior by-laws are hereby repealed.

The committee recommends that 200 copies be printed for use of the board.

ALEX McLEAN,	} Committee.
EMORY COBB,	
W. L. PILLSBURY,	

The special committee authorized at the last meeting of the board to fill vacancies in the force of instructors reported its acts as follows:

NEW INSTRUCTORS.

To the Board of Trustees of the University of Illinois.

GENTLEMEN: Your special committee appointed to fill vacancies in the corps of instructors reports that it has made the following appointments:

Daniel William Shea, A.M., Ph.D., assistant professor of physics, salary, \$1,800 a year.

William Otterbein Krohn, A.M., Ph.D., assistant professor of psychology, salary, \$1,800 a year.

Clarence L. Cory, M.S., assistant in physics and electrical engineering, salary, \$100 a month for ten months.

James G. Thompson, A.M., instructor in preparatory mathematics, salary, \$75 a month for ten months.

Hervey Edwin Parker, assistant in the architectural shop, salary, \$30 a month for ten months.

Henrietta L. Meyer, instructor in vocal music.

G. Napoleone Carozzi, instructor in instrumental music.

These appointments have all been made to begin Sept. 1, 1892.

G. R. SHAWHAN,	} <i>Committee.</i>
HENRY RAAB,	
EMORY COBB,	
T. J. BURRILL,	

Professor Forbes, Director of the State Laboratory of Natural History, presented his biennial report.

STATE LABORATORY OF NATURAL HISTORY.

To the Trustees of the University.

GENTLEMEN: In conformity to the recommendation of a special committee on the status of the State Laboratory of Natural History, whose report was made to you June 8, 1892, and in anticipation of your action on that recommendation, I beg to submit the following general report on the operations of the Laboratory during the two years just past.

The functions of the Laboratory, as most recently defined by the legislature, in the law of 1885, are the making of a natural history survey of the State, the supply of natural history specimens to the state museum, the state educational institutions, and the public schools, and the publication of a systematic series of reports on the zoölogy and the cryptogamic botany of the State. Its operations now cover, under authorization of the same law, those of the state entomologist, which were described by the law establishing that office in 1867 to be the investigation of the entomology of the State (particularly the history of insects injurious to horticulture and agriculture in Illinois), the collection of a cabinet of insects to be deposited in the University of Illinois, and the preparation of biennial reports of entomological researches and discoveries made at the office. The work of the establishment is further necessarily guided to a considerable extent by the appropriation laws in force; and by authority of these laws we are publishing, in addition to the two series of reports above mentioned, a third series of miscellaneous articles, containing only original work on the natural history of the State, issued in the form of bulletins of the Laboratory.

Our operations during the past two years have been also greatly influenced by legislation concerning the Columbian Exposition, by which it is made our duty to exhibit the methods and the results of the work of the Laboratory. The state board of exposition commissioners looks to this institution, in fact, for a display of the zoölogy of the State, prepared and arranged with special reference to our work.

ORGANIZATION.

The regular Laboratory force, to July, 1891, consisting of the undersigned, serving as director and state entomologist; Professor Burrill, of the University, as botanist; C. A. Hart, office entomologist; John Marten, field entomologist; A. M. Westergren, artist, and Mary J. Snyder, secretary and stenographer. During a part of this year H. S. Brode, of the University, served as zoölogical assistant, H. C. Forbes as librarian, and S. Shiga as janitor.

The same staff was continued to July, 1892, with the substitution of Miss Lily Hart as artist, in place of Mr. Westergren. Since July we have had engaged on regular laboratory work, in addition to the foregoing, but with the exception of Professor Burrill, Philip M. Huckle in entomology, succeeded by F. H. Snow. We have further employed on the preparation of the zoölogical exhibit of the Laboratory at the Columbian

Exposition, C. F. Adams, taxidermist, and Hugo Kahl as his assistant; H. F. Summers, entomologist; F. M. Woodruff and Ernest Forbes, ornithological collectors; F. M. McElfresh, entomological assistant; and C. T. Wilder, succeeded by J. E. Hallinen, engaged in making a collection of the fishes of the State—all this last group being paid by the World's Fair Commissioners.

The force actually under engagement at any one time has varied from six to sixteen.

INVESTIGATION.

The investigations of the Laboratory during the period covered by this report have followed the same general direction as during the two years preceding, but with a closer concentration on entomology than I like—a defect which I hope to avoid hereafter by changes in organization.

Progress in our knowledge of the general zoölogy of the State has been immediately furthered by a considerable amount of work done on waters outside our limits, by myself and my assistants, during our vacations, under the auspices and at the expense of the United States Fish Commission. One able to appreciate the fact that the life of no region can be thoroughly studied without a knowledge of that of other regions, adjacent and remote, and that in those departments of natural history where new forms must be described it is indispensable that opportunity should be had for a comparison of collections made over a large extent of country, will understand the advantages to our own studies which this extension of our aquatic work outside the State must bring to us in the end. The parties kept in the field ever since last fall on behalf of the Exposition collections have also added considerable material and information available for the purposes of our natural history survey. I need, however, as I have needed for some years, a zoölogical assistant whose time should go continuously to the zoölogical survey outside of entomology. In the entomological department of the survey, Exposition work has likewise aided us immensely. The collections and various studies which this work has required in all parts of the State have given us a mass of facts and material equivalent, I think, to the product of five years of our ordinary operations.

The principal trips made by the entomological assistants, for these collections and investigations, are thirty-two in number and cover, for the two years, 298 days' absence in the field at a distance from Champaign. The ornithological field work includes a trip of two months to Louisiana, made by Mr. Adams for the collection of Illinois birds in their winter quarters, three weeks' shooting in southern Illinois by two assistants, five more by one assistant in the northern part of the State, besides six weeks' collecting in Champaign county. In ichthyology one or two men have been out continuously for three and a half months.

Our outside aquatic operations include a journey to Yellowstone Park and western Montana by Mr. Brode and myself, covering five weeks in 1891, and trips by myself and two assistants to Geneva, Delavan, and Winnebago lakes in Wisconsin, occupying four weeks in all. I need not say that our trips of this description were not mere expeditions for the collection of specimens, but that they were attended and followed by field and laboratory studies of the waters, their surroundings, and their contents.

I may add, under this head, brief mention of the experimental work in economic entomology done at my office. The most important subject of precise investigation belonging here is that of the contagious diseases of insects, upon which we have worked almost continuously in the experimental way since the spring of 1891. Artificial cultures of the fungus parasite found most efficient for the propagation of such diseases have been made on a large scale, and supplied to all applicants from this State in sufficient quantities to enable them to start disease among injurious insects on their premises.

We also experimented last year with the fruit bark beetle, the white grubs, and the Hessian fly, with a view of clearing up doubtful points in the life history of each; and with respect to the species last mentioned, we undertook, at the request of the United States Entomologist, the introduction of one of its foreign parasites into the wheat fields of Illinois.

A very large amount of entomological breeding-cage work has been done by us in the two years just past, but of a kind which it is impossible to summarize. Something of the amount of general work done in entomology may be inferred from the fact that we have added to the pinned collections fully 20,000 specimens, and to the "biological" series, that illustrating the life histories and habits of Illinois insects, 2,700 bottles and vials.

PUBLICATIONS.

The regular publications of the Laboratory and entomologist's office during the past two years have been less numerous than usual; but the matter now in press and far advanced in printing is, on the other hand, unusually important.

My sixth report as state entomologist, the seventeenth of the entire series, was printed in 1891. It contains 105 pages and seven plates, three of which are colored, with an appendix of 36 pages and one plate. One of the articles of this report was issued separately in advance, as a bulletin of the office. My seventh report is now in course of preparation.

A second edition of the first volume of our report on the ornithology of the State, authorized by the legislature at its last session, has been long delayed, owing to difficulties concerning the supply of paper. These have been met, however, by the state board of contracts, and the printing from our stereotyped plates is in progress at the time of writing. This volume stops with the Columbidae, but a continuation and completion of this work on the systematic ornithology of the State has also been printed, and is now nearly ready for distribution as a first part of the second volume of the zoological series of the Natural History Survey.

Three articles have been published as bulletins of the Laboratory: one by Professor Weed on a plant louse species, one by Professor Gillette on new gall flies in the Laboratory collections, and one by myself on insect bacteria. We have in press in this series a full descriptive monograph of the reptiles and amphibians of the State, by Professor Garman (173 pages and seven plates), now nearly ready for distribution, and a similarly exhaustive account, by Dr. F. W. Goding, of the Illinois species of one of the families of true bugs (Membracidae).

Besides these regular publications we have prepared and printed, in connection with the distribution of collections to be referred to later, two lists, one of duplicate insects in the collection of the Laboratory (nineteen pages), and one a list of economic species for public schools (thirteen pages).

The following is a list of papers by the Laboratory force, published during the two years, the work for which has been done at the Laboratory.

Forbes, S. A.—Synopsis of Recent Work with Arsenical Insecticides. (Trans. Ill. State Hort. Soc., 1889, p. 310.)

On a Bacterial Insect Disease. (North American Practitioner, 1891, p. 401; Am. Monthly Micr. Journ., 1891, p. 246.)

Bacteria Normal to Digestive Organs of Hemiptera. (Bull. Ill. State Lab. Nat. Hist., iv, p. 1.)

On Some Lake Superior Entomostraca. (Rep. U. S. Fish Comm., 1887, p. 701.)

Preliminary Report upon the Invertebrate Animals inhabiting Lakes Geneva and Mendota, Wisconsin, with an Account of the Fish Epidemic in Lake Mendota in 1884. (Bull. U. S. Fish Comm., viii, p. 473.)

A Summary History of the Corn-Root Aphis. (Insect Life, iii, p. 233.)

On the Life History of the White Grubs. (Insect Life, iii, p. 239.)

Report of Progress in Economic Entomology. (Proc. 4th Ann. Convention Ass'n Am. Agr. Colleges and Exper. Stations; in Misc. Bull. No. 3, U. S. Dept. Agr., Office Exper. Stations, p. 29.)

The Hessian Fly. (Bull. Univ. Ill. Agric. Exper. Station, No. 12, p. 377.)

The Fruit Bark Beetle. (Bull. 4, Office State Entomologist Ill.; Bull. Univ. Ill. Agric. Exper. Station, No. 15, p. 469.)

Zoölogy in Public School: Choice and Arrangement of Material. (Public School Journ., xi, pp. 320, 375, 429.)

The Head of the English Sparrow. (Prepared in accordance with a requirement of the law of the legislature, passed at its last session, offering a bounty for the destruction of sparrows.)

The Chinch Bug in Illinois, 1891-92. (Bull. Univ. Ill. Agr. Exper. Station, No. 19, p. 44.)

An All-around Microscope. (Am. Monthly Micr. Journ., 1892, p. 91.)

The Fruit-Destroying Insects of Southern Illinois. (Trans. Ill. Hort. Soc. 1891, p. 116.)

The Importation of a Hessian Fly Parasite from Europe. (Insect Life iv, p. 179.)

Seventeenth Report of the State Entomologist on the Noxious and Beneficial Insects of the State of Illinois:—The Fruit Bark Beetle. Experiments with Arsenical Poisons for the Plum and Peach Curculio. The American Plum Borer. On the Common White Grubs. Additional Notes on the Hessian Fly. A Summary History on the Corn-Root Aphis. On a Bacterial Disease of the Larger Corn-Root Worm. Notes on the Diseases of the Chinch Bug. *Appendix*.—An Analytical List of the Entomological Writings of Wm. Le Baron, M.D., Second State Entomologist of Illinois.

Marten, John.—Various entomological articles, published as Entomological Editor of the *Prairie Farmer*, Chicago, Ill.

Hart, Charles A.—The Life History of Wireworms. (Insect Life, iii, p. 246.)

On the Species of *Cecanthus*. (Entomological News, iii, p. 33.)

Additional papers, prepared but not yet printed, are a presidential address on "The Progress of Economic Entomology during the Years 1891 and 1892," delivered by myself at the meeting of the American Association of Economic Entomologists at Rochester, N. Y.: my preliminary report to the United States Fish Commissioner, on the "Aquatic Invertebrate Fauna of Yellowstone Park, Wyoming, and of the Flathead Region of Montana;" and two important papers, now in the hands of my assistants, well advanced towards completion: the first by Mr. Marten, containing descriptions of new species of Illinois gall gnats, and the other by Mr. Hart,—a descriptive list of the aculeate Hymenoptera of the State.

Reference should here be made, for the purpose of completing this summary of our services in the field of economic instruction, to the various addresses made within the State by Mr. Marten and myself.

DISTRIBUTION OF MATERIAL.

In pursuance of the plan mentioned in my last biennial report, 14,000 insects were distributed during the winter of 1890-91 to thirty-nine public schools. These sets were named, labeled, and systematically arranged,

and were accompanied by printed pamphlets giving the information necessary to make them available for use in the work of the schools. Notwithstanding this heavy draft on our duplicate material, our entomological collections are already larger than before the distribution was made.

The fact that the insects belonging to the State Laboratory of Natural History are now kept in the University building, and are held at the service of students, under suitable conditions, makes unnecessary any further collections, at present, under the law requiring a cabinet of insects to be prepared by the state entomologist and deposited at the University.

No collections have been sent during the last two years to the state educational institutions or to the state museum, but according to a resolution passed by the State Board of World's Fair Commissioners last spring, it is held that the collections now making by the Laboratory for Exposition purposes will be available at the close of the Exposition for distribution by the Laboratory to these institutions.

S. A. FORBES,
Director.

The finance committee made this report:

To the Board of Trustees of the University of Illinois.

GENTLEMEN: Your finance committee reports that it has examined the warrants, numbered from 1 to 306, inclusive, paid the treasurer during the year ending June 20, 1892, from the funds of the Agricultural Experiment Station, and has found their amount to be \$15,000 and that they have been properly canceled.

The committee has also examined the vouchers numbered from 208 to 306, inclusive, for the expenses of the Station for the quarter ending June 30, 1892 and has found them to amount to \$5,323.54 and that they are duly receipted.

The committee has examined the financial statement of the board of direction of the Experiment Station, showing its expenditures for the year ending June 30, 1892, to be \$15,000, and approves the same as correct.

Respectfully submitted,

ALEX. MCLEAN,
NELSON W. GRAHAM, } *Finance Committee.*
EMORY COBB,

The board then adjourned to meet in adjourned session at the call of the president.

W. L. PILLSBURY,
Secretary.

S. A. BULLARD,
President.