





·ENGINEERING·HALL·



# SEVENTEENTH REPORT

(Seven annual, ten biennial.)

OF THE

## BOARD OF TRUSTEES

OF THE

# UNIVERSITY OF ILLINOIS

URBANA, CHAMPAIGN COUNTY, ILLINOIS

FOR THE TWO YEARS ENDING SEPTEMBER 30, 1894

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SPRINGFIELD, ILL.  
ED. F. HARTMANN, STATE PRINTER  
1894



UNIVERSITY OF ILLINOIS,  
URBANA, November 1, 1894.

*Honorable JOHN P. ALTGELD, Governor of Illinois.*

SIR:—I have the honor to submit to you herewith, in compliance with the law, the seventeenth report of the Trustees of the University of Illinois, for the two years ending September 30, 1894.

I am, very respectfully, your obedient servant,

WILLIAM L. PILLSBURY,  
*Corresponding Secretary.*



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\*Resigned August 15, 1894.

†Appointed July 1, 1894.

‡Resigned Sept. 1, 1894; succeeded by Professor Burrill.

§Resigned Aug. 1, 1894.

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Assistant Chemist. *311 S. Neil Street, Champaign.*

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\*Resigned Sept. 1, 1894.

†Resigned Aug. 1, 1894.

# Summary, 1892-93.

COURSES AND CLASSES.	University.							Preparatory School.	University and Preparatory School	
	Graduate school.	Resident graduates.	Seniors.	Juniors.	Sophmores.	Freshmen.	Specials.	Totals.	Total.	Total.
Agriculture, men .....			2	1	...	4	6	13	13	5
Mechanical engineering, men.....		1	3	3	18	28	53	53	26	5
Electrical engineering, men.....			4	11	7	35	1	58	58	26
Civil engineering, men.....		1	12	15	20	27	...	75	75	36
Mining engineering, men.....				2	1	3	...	6	6	17
Municipal and sanitary engineering, men.....								1	1	92
Architecture { Men.....		1	10	16	17	27	3	74	75	7
Architecture { Women.....						1	...	1	1	1
Architectural engineering, men.....					6	4	1	11	11	97
Chemistry { Men.....		1	9	6	13	10	3	42	43	2
Chemistry { Women.....						1	...	1	1	99
Natural History { Men.....		1	7	8	8	13	...	37	54	15
Natural History { Women.....		1	1	2	7	6	...	17	6	4
English and Mod- Men.....			10	6	7	9	...	32	22	52
English and Mod- Women.....			6	3	4	18	5	36	16	2
Latin { Men.....			1	3	2	1	...	7	10	54
Latin { Women.....				2	1	...	...	3	2	8
Classical { Men.....		1	2	1	1	4	...	9	6	3
Classical { Women.....			1	1	1	2	...	5	14	9
Art and design { Men.....							2	2	10	15
Art and design { Women.....							8	8	...	8
Music, women.....		1					2	3	3	10
Not specified { Men.....							1	1	3	3
Not specified { Women.....								1	5	4
Total { Men.....	2	4	60	72	100	166	17	421	166	587
Total { Women.....	2	1	7	8	13	28	15	74	30	104
Total.....	4	5	67	80	113	194	32	495	196	691

Adding to the number enumerated above the 23 men who attended the one term course in Agriculture gives—

Total in attendance during the year 1892-3.....714

*Summary, 1893-94.*

COURSES AND CLASSES.	University.							Preparatory School.	University and Preparatory School.
	Graduate school.....	Resident graduates.....	Seniors.....	Juniors.....	Sophomores.....	Freshmen.....	Specials.....	Total.....	Total.....
Agriculture, men.....	1	1	1	2	1	5	5	3	8
Mechanical engineering, men.....	2	3	11	18	16	48	48	19	67
Electrical engineering, men.....	2	11	7	23	38	84	84	39	123
Civil engineering, men.....	2	14	22	19	14	73	73	13	86
Mining engineering, men.....	1	1	1	1	1	2	2	2	2
Municipal and sanitary engineering, men.....	1	2	2	2	1	5	5	5	5
Architecture { Men.....	1	3	18	8	18	29	2	79	81
Architecture { Women.....	1	1	5	3	4	2	2	81	19
Architectural engineering, men.....	1	1	5	3	4	13	13	1	14
Chemistry { Men.....	1	8	10	5	11	1	36	7	43
Chemistry { Women.....	1	1	1	1	1	1	37	4	1
Pharmacy, men.....	1	1	3	2	2	2	7	3	10
Natural History { Men.....	1	1	14	4	7	17	1	45	53
Natural History { Women.....	1	2	9	2	4	17	62	8	21
English and Modern Languages { Men.....	1	1	6	12	7	12	2	41	63
English and Modern Languages { Women.....	2	2	3	3	8	9	11	38	49
Latin { Men.....	1	3	1	3	2	9	18	6	15
Latin { Women.....	1	3	1	3	2	9	18	2	11
Classical { Men.....	1	3	2	4	6	16	21	5	21
Classical { Women.....	1	1	2	1	1	5	3	8	8
Art and design { Men.....	1	1	1	1	1	1	1	1	1
Art and design { Women.....	1	1	1	1	1	1	1	1	1
Music, women.....	1	1	1	1	1	1	1	1	1
Physical culture, women.....	1	1	1	1	1	1	1	1	1
Total { Men.....	8	9	83	84	109	155	16	464	145
Total { Women.....	2	3	9	15	14	20	25	88	21
Total.....	10	12	92	99	123	175	41	552	166

Adding to the number enumerated above the 25 men who attended the one term course in Agriculture gives—

Total in attendance during the year 1893-4.....743

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

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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 inadequate.

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.

*Receipts—*

Appropriated by Congress.....\$15,000 00

*Expenditures—*

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



*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	D. 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		
				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 especially 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,	} <i>Finance Committee.</i>
NELSON W. GRAHAM,	
EMORY COBB,	

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

S. A. BULLARD,  
*President.*

W. L. PILLSBURY,  
*Secretary.*

### ADJOURNED SESSION, TUESDAY, NOVEMBER 15, 1892.

The board met pursuant to adjournment in the University Parlor, Urbana, at 3:30 o'clock p. m., Tuesday, November 15, 1892. There were present, Messrs. Bullard, Clemens, Cobb, Funk, Graham, McLean, Raab, and Shawhan; absent, Governor Fifer, and Messrs. Bryant, McKay, and Morgan.

The minutes of the meeting of June 7th, and of the adjourned session of that meeting, held June 27th, were approved.

The executive committee made the following report:

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

GENTLEMEN: The executive committee of the Board of Trustees of the University of Illinois met Wednesday morning, Sept. 14, 1892, in the University Parlor, Urbana, Illinois. Messrs. Bullard and Cobb were present; Mr. Funk was absent.

The rules for the government of the students of the University, as revised by the executive committee of the faculty, and reported to the board of trustees, were approved after amendment, as follows:

English literature and history were added to the list of studies enumerated in the fourth paragraph under the head of "Studies," etc.

In the second paragraph under the head of "Order and Discipline," the words "by the regent" were stricken out.

In the last paragraph the word "two-thirds" was changed to three-fourths.

The following appropriations were made as asked for by Professor Shattuck, business agent, in Paper F.

Board expense.....	\$500 00
Salaries for instruction.....	15,995 00
Salaries for services.....	1,665 00
Buildings and grounds.....	200 00
Fuel and lights.....	1,500 00
Stationery, printing, etc.....	400 00
Laboratories.....	600 00
Library and apparatus.....	50 00
Incidentals.....	200 00
Mechanical department.....	200 00
Architectural department.....	200 00
Agricultural department.....	200 00
Horticultural department.....	100 00
Military department.....	100 00
Gymnasium.....	100 00
University extension.....	100 00
Water supply.....	100 00
Furniture and fixtures.....	200 00
Library cases—balance.....	122 45
Accredited schools—balance.....	81 30
Farm barn—balance.....	112 88
Minnesota lands—balance.....	80 92
Art department—balance.....	40 50
Total.....	\$22,848 05

The following assignments were made:

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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It was ordered that \$500 be paid Professor Ricker as architect of Natural History Hall.

Professor Morrow was appointed a delegate to the meeting of the American Association of Agricultural Colleges and Experiment Stations to be held in New Orleans, November next, and the regent was given authority to appoint a second delegate, if he should conclude that such an appointment was desirable. If Professor Morrow alone should go, his expenses are to be paid by the University. If another person goes with him, then such other person's expenses shall be paid by the University, and Professor Morrow shall pay his own expenses.

The appropriations of Experiment Station funds were made as asked for in the report of the Station submitted to the board of trustees by the regent on the 13th inst. Also authority was given the Station to make an investigation of the bacteriological changes in milk and its products.



The committee voted not to appropriate \$250 for the Chicago Society for University Extension.

The painting of the dwelling house occupied by Professor Morrow was authorized—two coats, for not to exceed \$50, to be charged to agricultural department.

The president and the regent were directed to procure 200 copies of a suitable certificate for accredited schools, the expenditure being limited to \$125.

It was voted that Miss Merrill should be styled assistant professor of the English language and literature, and preceptress.

The treasurer's bill for premium paid on bonds, \$3,212, was ordered paid from current funds.

It was voted to subscribe for 400 copies of the *Illini* at \$280 for the year, these to be sent out as directed. It is understood that if the *Illini* should be changed to a weekly then the board of trustees may, at its option, terminate or continue its subscription. If the subscription should be continued, then the board is to pay actual cost only on account of the change. The business agent and the secretary were authorized to make the agreement in accordance herewith with the business manager of the *Illini*.

The following appropriations were made from current funds:

For class instruction during the quarter.....	\$150 00
For use of faculty committee on students' welfare.....	15 00
For gymnasium apparatus.....	100 00
For material for use of zoological laboratory.....	50 00
For matting in library.....	30 00
For pier at the Astronomical Observatory.....	15 00

From state appropriation for buildings and grounds—

For repairs to north steps of Chemical Laboratory.....	35 00
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From state appropriation for cabinets—

For marine invertebrate specimens for the museum.....	300 00
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From state appropriation for apparatus and material—

For 6 swords and belts.....	60 00
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The business agent was authorized to use \$500 from current funds in facilitating the work of preparing the exhibit at the World's Fair; but in such a way only that the University should suffer no loss.

S. A. BULLARD, *President*.

W. L. PILLSBURY, *Clerk*.

#### REGENT'S REPORT.

The board then proceeded to the consideration of such matters presented by the regent in his report of September 13th, as had not already been acted upon by the executive committee.

So much of the communication from the Associated Alumnae of the University of Illinois as related to the appointment of a woman to a full professorship, was referred to the committee on instruction. Reference was made to the committee on buildings and grounds of that part relative to the erection of a cottage for the women students; and there was referred together with it a petition upon the same subject, signed by 67 of the women students of the University. The petition was as follows:

#### PETITION FOR A WOMAN'S DORMITORY.

We, the undersigned women students of the University of Illinois, do hereby petition the honorable board of trustees to consider at their next

meeting the desirability of providing a Woman's Dormitory, to serve as a suitable and pleasant home for those of us whose parents do not live near the University.

We wish to bring to the attention of the board the following facts:

1. Inasmuch as the university buildings are, so far as convenience is concerned, neither in Champaign nor Urbana, many young women are obliged (1) to be satisfied with very inadequate accommodations within easy walking distance of the University, or, (2) to reach their rooms in Champaign or Urbana by means of street cars. This adds in time not a little to the expense of their college course, and frequently compels them besides to carry cold lunches.

2. The university authorities have seen fit to provide the young men of the institution with a drill hall; with an instructor whose business is mainly to teach athletics; with the facilities, and the freedom to enjoy them, of field day; in none of which the young women have any share. We, therefore, request, as an offset to these advantages, that the University be given the means to furnish a comfortable home, near the university buildings, for the young women in attendance. We are certain that if parents of this State, who live at a distance, were assured of the existence of a good sized and convenient woman's dormitory, belonging to the University and under its control, they would feel secure in sending their daughters here, and that the number of women students would be much increased.

In the name, therefore, of our own and other parents, we repeat our request and urge that this petition have due consideration.

The appointment of Albert Louis Kuehstedt, assistant in physics and electrical engineering, was confirmed on motion of Mr. McLean; salary, \$100 a month for ten months.

The matter of Professor Burrill's salary was referred to the finance committee to report upon at this meeting.

The by-laws of the faculty were approved on motion of Mr. Raab.

The regent presented a letter from Mr. Jerome H. Raymond in regard to the University Extension Magazine, which was referred to the executive committee to report upon at the next meeting.

It was voted to offer to each accredited school each year a scholarship, to be awarded to the pupil who passes the best examination in the subjects required for entrance to the University, the holder of the scholarship to have the privilege of attending the University two years free of tuition and incidental expenses. The subject was referred to the faculty for the elaboration of a plan of award.

The question of scholarships for the preparatory department was referred to the regent and the committee on instruction.

Authority was given the regent to expend such a sum of money as should be necessary to procure the medal awarded the University by the Paris Exposition.

Ten dollars was appropriated in payment of the University's membership fee in the Association of American Agricultural Colleges and Experiment Stations.

The board then adjourned to meet at the Doane House, in Champaign, at 7:30 o'clock p. m.

#### EVENING SESSION.

The board met at the Doane House pursuant to adjournment.

Professor D. K. Dodge offered his resignation of the chair of English language and literature, but the board declined to accept the resignation.

The regent presented the following communication from the college of agriculture:

UNIVERSITY OF ILLINOIS, Nov. 14, 1892.

The college of agriculture recommends:

That some special effort be made to secure attendance at a one term farmers' short course, extending through the winter term at the University.

That, in addition to regular lectures and class work by the professor of agriculture on soils and crops, and on animal husbandry, and those by the professor of veterinary science, there be given brief series of lectures by the professors of botany and horticulture, of chemistry, entomology, zoölogy, and geology, and the chemist of the Agricultural Experiment Station, or by their assistants so far as their other duties permit, and by a few representative men not connected with the University, but interested in different phases of agricultural work.

That students for this term be admitted without examination and without fees, with reasonable regulation as to age (18) and to attendance and work while at the University.

That to provide for the expenses of advertising and conducting this special course a sum not exceeding \$150 be asked from the trustees

G. E. MORROW, *Dean*.

The regent presented a further request from the college of agriculture for an appropriation of \$100 for the purchase of lantern slides and other apparatus.

On motion of Mr. Funk, the college of agriculture was authorized to offer the proposed short course for the next winter term, and \$250 from the U. S. fund was appropriated for the uses named.

Statements of the needs of the college of engineering and of the several departments of the college, were presented by the regent, but as the sums of money which would be required to meet these needs were greatly in excess of the present available resources of the University, they were referred to a committee on legislation, to be appointed.

Twenty dollars was, on motion of Mr. Cobb, appropriated for use in Professor Snyder's room.

Three hundred dollars was appropriated for such furnishing as is indispensable in Natural History Hall, the amounts to be expended by the business agent and the heads of departments who are to occupy the building.

Upon the request of Mr. Hall, director of the gymnasium, \$120 was appropriated for fitting up a room in which the women students of the University may take physical exercise. The selection of the place for such exercise was referred to the faculty.

A petition for an elevator for the use of women, in University Hall, was laid over to the December meeting, together with requests by Mr. Hall for apparatus for the gymnasium, and with regard to athletic affairs.

The question of what appropriations for new buildings should be asked for of the legislature was then taken up.

The regent presented the following from the faculty in relation to this question:

The following paper was voted by the faculty of the University of Illinois, October 31, 1892:

"On February 24, 1892, the faculty of the University of Illinois voted that it was desirable to ask for buildings from the next legislature, (a) engineering building, (b) library, (c) museum, the order not to imply precedence, all being considered absolutely necessary."

At a meeting of the trustees held June 27th, it was voted "that there be erected, as soon as practicable, a library building and a building for the college of engineering."

In the report of the committee on buildings and grounds of the trustees, presented September 14, 1892, it is said;

"Your committee has carefully considered the plans for the three 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."

In view of this last report the faculty wish to say that the three buildings are still considered necessary, but if, in the opinion of the trustees, appropriations can be asked for only two, the faculty earnestly recommends that those two be the engineering building and the library, and the regent is requested to present this recommendation to the trustees at their next meeting."

A copy from the records of the faculty for October 31, 1892.

J. D. CRAWFORD, *Secretary of the Faculty.*

The regent also stated that subsequently the faculty had asked the deans of the colleges of engineering, science, and literature, to present in writing the reasons demading the erection of engineering, museum, and library buildings, respectively; that the papers so presented had been approved by the faculty; and that he had been asked to transmit them to the trustees. He also said that by his request the deans were present, and would, if the trustees desired, read the papers they had prepared. A wish having been expressed to hear the papers, Professor Ricker was listened to in behalf of the engineers' building, Professor Forbes in behalf of the museum, and Professor Snyder in behalf of the library.

It was then moved by Mr. Cobb to refer the plans of the engineers' building and the museum to the committee on buildings and to elaborate plans and specifications, with the help of Professor Ricker, for presentation at the December meeting.

Mr. Shawhan moved to amend by substituting library for museum. The amendment was lost.

He then moved to add the library to the list of buildings, and this amendment prevailed, and the motion as amended was then passed.

The committee on buildings and grounds made the following report:

#### NATURAL HISTORY HALL.

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

GENTLEMEN: Your committee on buildings and grounds respectfully reports with regard to the erection of Natural History Hall, as follows:

1. Your committee, acting with the executive committee, and by authority given by you, Sept. 21, 1891, awarded the contract for the erection of Natural History Hall, according to plans and specifications adopted by you Sept. 9, 1891, to Valentine Jobst, of Peoria, Ill., for the sum of \$58,519.50, which award was approved by you Dec. 8, 1891.

2. The building has been completed according to contract, as is shown by the following certificates:

URBANA, ILL., Nov. 15, 1892.

This is to certify that V. Jobst has completed his contract on Natural History Hall to my entire satisfaction.

STEPHEN P. SUTTON, *Superintendent.*

URBANA, ILL., Nov. 15, 1891.

This is to certify that V. Jobst has completed his contract for Natural History Hall and made the changes to my entire satisfaction. I therefore recommend that the building be formally accepted.

N. CLIFFORD RICKER, *Architect.*

The committee accordingly advises that the building be accepted, and that the balance due on the original contract be paid.

3. Your committee also approves Mr. Jobst's bill for extras, ordered by the architect, and amounting to \$514.81, and recommends that the

same be paid, and that a receipt in full of all demands on the original contract and for all extras on said building be taken from Mr. Jobst and filed with the secretary.

4. Your committee also recommends the payment of Mr. Jobst's bill for material and labor, furnished for other purposes, amounting to \$39.54.

Respectfully submitted,

S. A. BULLARD,  
ALEX. MCLEAN,  
NELSON W. GRAHAM, } *Committee on  
Buildings and Grounds.*

The report of the committee was approved, and it was ordered that payments be made as therein recommended.

The Board then adjourned to meet in the University Parlor at 9 o'clock a. m., Wednesday morning.

### SESSION OF WEDNESDAY.

The board met pursuant to adjournment, the same members being present as on Tuesday afternoon.

On motion of Mr. Funk, \$30 was appropriated for the use of the committee of the faculty on students' welfare.

Assignments of the funds of the State Laboratory of Natural History were made as follows, for the quarter ending Dec. 31, 1892:

For field, office, and incidental expenses.....	\$375 00
For salaries and assistance.....	875 00
For publication of bulletins.....	125 00

The report made Sept. 13th, by the committee on buildings and grounds, was approved, and not to exceed \$1,200 was appropriated from current funds to meet contracts on the Natural History Hall.

The board then took a recess to attend chapel exercises.

The report of the committee on Minnesota lands, made Sept. 13th, was approved.

The report made Sept. 13th, by the committee appointed to compile the by-laws of the Board was then taken up.

On motion of Mr. Raab, it was voted to strike out from Art. 4, Sec. 1, the words "vice president."

On motion of Mr. Cobb, it was voted to insert in Art. 5, Sec. 2, after the word "the," the words "president and the."

The by-laws were approved as thus amended, and the secretary was directed to have 200 copies printed for the use of the board.

The report of the committee on instruction, made Sept. 13th, was approved, and the appointments were confirmed, on motion of Mr. Raab.

The reports of Professor Forbes on the State Laboratory of Natural History, and of the finance committee on Agricultural Experiment Station matters, made Sept. 13th, were severally approved.

The finance committee made the following report, which was approved:  
*To the Board of Trustees of the University of Illinois.*

GENTLEMEN: Your committee on finance, to which was referred the report of the treasurer, made Sept. 13, 1892, has examined said report and finds it correct, and that it shows a balance in the treasurer's hands of \$89,478.02.

Your committee has also examined the vouchers. No. 701 to No. 1075 inclusive, submitted by the business agent, and has found them correct and properly receipted.

Respectfully submitted,

NELSON W. GRAHAM, } *Committee.*  
ALEX. MCLEAN,

The committee on instruction reported as follows:  
*To the Board of Trustees of the University of Illinois.*

GENTLEMEN:—Your committee on instruction begs to report as follows:

Referring to the petition of the alumnae that a woman be appointed as full professor in the University, we think that the appointment of Miss Merrill to the assistant professorship of English language and literature is all that it is possible to do under the circumstances; and that the request of the alumnae for a full professorship will be granted as soon as there is an opportunity.

Respectfully submitted,

HENRY RAAB,  
 GEORGE R. SHAWHAN, } *Committee.*

The report made June 7th by the committee appointed to prepare a statement of the relations of the State Laboratory of Natural History to the University was then considered, and, on motion of Mr. Cobb, approved.

The request of Professor Forbes for microscopes for the department of zoölogy, and for use as a part of the exhibit at the Columbian Exposition, was referred to the regent and the business agent to report upon at the next meeting.

Professor Brownlee, mayor, and Mr. Dougan and Mr. Shuck, aldermen of Urbana, representing the council of that city, made a statement to the board with regard to the sewer pipe which had been laid recently in the Boneyard Creek, in Champaign, down to the east line of that city, and the nuisance created by the discharge of sewage from said drain. The gentlemen asked, since the sewage entered the city of Urbana at the west line of the University grounds, and for some distance flowed across them, that the board of trustees co-operate in securing the abatement of the nuisance.

The board appointed the president, Messrs. Clemens and McLean, and the secretary to look into the matter, make protest against the nuisance, and inquire of the attorney general as to its powers in the premises.

The regent presented a letter from Professor Forbes, stating that he had been asked by the United States Fish Commissioner whether he could not take the directorship of the exhibit of the Commission at the Columbian Exposition. The regent said that he thought the University work could be so arranged, without detriment or cost to the University, that Professor Forbes could take this position, and that he should be authorized to answer the inquiry of the Fish Commissioner in the affirmative. Permission was given Professor Forbes to make such answer, on motion of McLean.

A request, endorsed by the executive committee of the faculty, for a room in attic story of the Natural History Hall, to be used as a laboratory of experimental psychology, was referred back to the faculty with the statement that for the present it would be impracticable to heat the rooms on that floor.

Requests for additions to the plant in his department, made by Professor Scribner, were referred to the regent, the business agent, and Professor Scribner, to report on at the next meeting.

The amount allowed for clerical work in the regent's office was increased from \$40 to \$45 a month.

The band was given permission to change the style of its cap, as proposed in a communication from the faculty.

The request of Professor Frederick for an appropriation for the school of art and design, was referred to the regent, the business agent, and Professor Frederick, to report on at the next meeting of the board.

On motion of Mr. Shawhan, \$25 was appropriated for music for the use of the band.

The request of Lieutenant Hills for assistance in giving instruction in his department, was referred to the regent, to report on at the next meeting of the board.

The requests of Professor Ricker in regard to the department of architecture, were referred to the regent, the business agent, and Professor Ricker, to report on at the next meeting.

On motion of Mr McLean, the regent and the business agent were directed to replace the hose reported to be in bad condition on the roof of University Hall.

The request of the Academy was referred to the president and the regent, to report on at the next meeting.

The regent presented the following communication from the faculty:

UNIVERSITY OF ILLINOIS, Nov. 15, 1892.

It was voted by the faculty, October 31, 1892, that the following requests be made of the trustees at their next meeting:

1. To provide for an entrance examination, to be held in Chicago early in July.
2. To provide for the issuing of a sixteen-page circular, eight pages of text and eight of illustrations, similar to that distributed last year, in quantity sufficient to place a copy in the hands of every high school pupil in the State, and of all others who may call for them.
3. So to amend the rules that public high schools out of the State may be put on our accredited list.
4. So to amend the rules that private schools may be put on our accredited list.

J. D. CRAWFORD,

*Secretary of the Faculty.*

The first, third, and fourth of these requests were granted.

The matter of the circular was referred to the regent, the business agent, and the secretary, to report on at the next meeting of the board.

The request of the mandolin club for aid was not granted, on the ground that the board has now no funds which it could use in this way.

A request having been made for the appointment of a committee, of which the President should be a member, to report to the board at its December meeting upon matters to be made the subject of legislation, the President named as such committee Messrs. McKay McLean, Clemens, Graham, and Morgan, and himself.

The board adjourned.

S. A. BULLARD,

*President.*

W. L. PILLSBURY,

*Secretary.*

## MEETING OF DECEMBER 13, 1892.

The board met in the University Parlor, Urbana, at 3:30 o'clock p. m., Tuesday, December 13, 1892. There were present Messrs. Bullard, Cobb, Funk, Graham, McKay, Rabb, and Shawhan; absent, Governor Fifer, and Messrs. Bryant, Clemens, McLean, and Morgan.

The minutes of the meeting of September 13th, and of the adjourned session of that meeting, held November 15th, were approved.

The regent presented his report.

## REGENT'S REPORT.

*To the Board of Trustees, University of Illinois.*

GENTLEMEN: In accordance with your requirements I present the following quarterly report of the condition and affairs of the University for the period since your last regular meeting.

It is pleasant to be able to state that good progress has been made and that an excellent spirit animates and strengthens the work undertaken. No claim is made that perfection has been reached in regard to attention to duty, or in considerate propriety of demeanor; but no case of serious neglect of a student's proper work, or of willful disorder, has come to my knowledge. I think it is a prevalent feeling among the young men and women enrolled that attendance at the University is a signal privilege, and that it is distinctly to their advantage to help in every possible way in the daily progress of the great institution organized for their benefit. Certainly this should be the case, and it seems to me the internal management of affairs should be based upon the assumption that it is and must be the normal condition of things. Then exceptions may be treated as they deserve without modification of the general rule.

The enrollment for the year now reaches 642 names. Of the number who have on record their selection of courses nearly sixty per cent. are in the engineering college. The most rapid advance among these courses is in electrical engineering, in which two years ago but a single student was registered, and last year 29. This last number is now considerably more than doubled.

## STUDENTS' ORGANIZATIONS.

The numerous organizations among the students have been maintained with much enthusiasm, both in the lines of culture and improvement in literary and technical matters and in social privileges and enjoyments. A new society has been formed among the chemists and the young women have been permitted to establish a chapter of a Greek letter organization. Preceding the Thanksgiving recess much attention on the part of the students was given to field sports under the direction of the instructor, and they feel greatly encouraged by their progress and success. Mr. Hall has been very efficient in his department and has the hearty good will of all the students. He had the misfortune to receive a serious injury to his wrist in a game of foot ball, but his hand is now out of the sling and will soon be again serviceable. Several others had



quite severe injuries during autumn in this game, and such injuries must be counted drawbacks to the otherwise popular and advantageous sport. The class work in the gymnasium, now in progress, is well attended and bids fair to be excellent in quality and results. It has finally been decided to have the gymnasium practice for young women in military hall upon certain days of the week. It is expected that their practice will begin with the next term.

The students composing the University Glee Club and the Mandolin and Guitar Club, as well as the athletic organization, are preparing to give public entertainments at home and in some of the accessible towns of the State. These cost much in time and energy and must conflict to some extent with regular class work; but the value to the participants may offset their losses, and the advertisement of the University must be helpful. The presentations will assuredly be of a high order, and in that respect of much credit to the institution. The first appearance of the musical organizations occurred before a large and appreciative audience last Friday evening at Mattoon.

#### SHORT COURSE IN AGRICULTURE.

Provisions have been made for a short winter course in agriculture, and considerable advertisement of the fact has been secured. It has been proposed to furnish practical and theoretical instruction, free of expense, to all who apply for this course. It is announced that candidates should be 18 years of age, but no other conditions or requirements are imposed for entrance. Besides the regular classes taught by the specialists in the agricultural college, courses of lectures will be given by several members of the faculty, and to some extent by others invited to do so. This course ought to attract a good attendance, and the indications we have point in this direction; but former failures of like efforts to reach considerable numbers of young farmers make it hazardous to predict great success this time. At all events, the endeavor is worth all its costs.

#### UNIVERSITY EXTENSION.

A circular has been issued announcing 21 lecture courses in the university extension series for the present scholastic year. Fifteen members of the faculty are thus advertised as ready to carry to the public information they have gained as specialists in their several departments. Only one course has been commenced, which is by Professor Frederick, at Streator. Inquiries have been received from various localities, but definite arrangements have not been made for other courses. It is thought desirable to take more active measures to establish courses in easily accessible towns, if a sufficient number of requests do not come without this effort. To this end a communication from the faculty on the subject is herewith submitted, and your consideration of this request is solicited.

#### NATURAL HISTORY HALL.

The dedication of the new Natural History Hall took place November 16th, with addresses by Dr. David S. Jordan, President of the Leland Stanford Junior University, by Professor N. H. Winchell, of the University of Minnesota, and by Professor William Trelease, of Washington University. A large audience gathered to hear these addresses and to witness the formal ceremonies of the dedication, as well as to inspect the building, which was then thrown open to visitors for the first time. The beautiful and commodious structure was much admired, and praises of the architect and of the contractor were heard upon every side. To Professor Ricker must be given the credit for the elegant design, and for the substantial construction. The building is believed to be commendable from all points of view, a credit to your committee on buildings and grounds, and a lasting memorial to the high excellence and practical efficiency of the school of architecture in the University.

The completion of the heating and plumbing of the building has been much delayed. The men are still at this work, and it is anticipated that the transfer of the departments of botany, zoölogy, and geology to the building will take place during the holiday recess.

#### HEATING APPARATUS.

I am sorry to state that much trouble has been experienced with the general heating apparatus. The tubular boilers, which were repaired during the summer, leak altogether too much for the highest efficiency, and the escaping steam makes much annoyance in the boiler room. Where the fault lies I cannot say, but am told that the gaskets cannot be held closely upon the mouths of the tubes, because of the uneven corrosion of the iron in some cases, and warping of the parts in others. The new boiler seems to give satisfactory results, though doubts are held as to the system of connection with the buildings. It has not been possible to warm the Chemical Laboratory, even with the mild weather we have had, for a long time after the steam was turned on, and then only by opening the radiators and permitting the accumulated water to run out instead of returning to the boiler. The coils of steam pipe, upon which most dependence is placed in heating the laboratory rooms, are in very bad condition, a fact unknown to me until after the trouble about heating the building was recently reported. It is almost, or quite, impossible to get at these coils to repair them. This makes the trouble a serious one, to which attention ought to be given as early as possible. While the radiators in the new building may be, and probably will be, entirely suitable for the required use, it must be feared that the boiler connections here will give the same trouble as at the Chemical Laboratory. This, however, is a matter between your committee on buildings and grounds and the contractors. The danger herein feared is that successful arrangements will not be completed in time for the occupancy of the building at the beginning of next term. This danger must not befall us if it can in any way be avoided.

The hose for the roof of University Hall, ordered at your last meeting, is on hand and ready for service.

#### INSTRUCTION.

Instruction is now given in the University by 22 professors, 4 assistant professors, 10 instructors and 2 fellows, all having charge of distinct classes, and by 6 regular assistants aiding the foregoing. Besides this, special aid is obtained in several cases from advanced students, who are employed for the purpose. This is a large corps of instruction, and, as the members of it are, in several and particular, notably competent and heartily in earnest, the work must be well done. Evidence to this end is apparent everywhere. Perhaps it cannot be claimed that, as a body, the instructors are superior to those of other similar institutions of learning in general, but it is confidently asserted that no such institution has more devoted or harder working teachers or leaders in the special departments to which they are severally assigned. The work is done without complaint, though in numerous instances it is too hard for the best results in the long run. In nothing else does the university so emphatically exist and in nothing else must its excellence be so measured as in the quality and inspiration of the instruction. Hence all else should be sacrificed if need be before the energy and enthusiasm of the teachers are reduced by overwork or discouraging treatment. As the number of students increases and as the courses of instruction are developed more teaching must be provided. In importance, this seems to me to be the very first thing demanding the attention and energy of your board. Every advance made in the grade of instruction, every building added for occupancy, means increased expenditure of current funds. The amount now available for running expenses is inadequate to existing demands, to say nothing of advancement. If the University is

to grow, it must have more money coming to its treasury. The maximum salaries now paid are lower than they should be, and you will probably agree with me that some not maximum should be raised at the end of the current year.

The remarkable increase in numbers of students in the engineering courses especially calls for further instructors in these lines. The drawing and descriptive geometry of the freshman class demand a permanent teacher with an assistant, and further aid is essential in the course of mechanical engineering. The shops of this latter department are altogether inadequate in kind and extent, and more assistance is evidently required in instruction. Both the course of instruction and the equipments therefor in physics should be largely extended, and a course of laboratory instruction in physiology is a needed improvement. On the literary side, the offering in history should be largely increased; while a chair of political economy is an exceedingly desirable addition. The library ought to be at least doubled in its number of books within a few years, and its treasures should be rendered accessible to teachers and students by much fuller indexing and by giving to all opportunity to consult the books on their shelves—a thing now impossible for want of room.

As an indication of what other state universities have done, and are doing, for their libraries; the following statistics, recently furnished by Professor Crawford, are of interest:

NAME.	Volumes in library.	Annual expenditure for books.	For administration.
Michigan University.....	83,000	\$7,500 00	\$6,050 00
Wisconsin University.....	26,000	4,000 00	2,000 00
Cornell University.....	110,000	15,800 00	9,818 00
Minnesota University.....	28,077	* 4,264 00	2,075 00
Indiana University.....	15,887	+ 2,000 00	1,800 00
Iowa University.....	22,000	‡ 2,500 00	1,600 00
Nebraska University.....	20,000	4,000 00	2,150 00

\* In 1892.

+ \$6,000 in 1891.

‡ \$10,000 in two years.

Wisconsin is spending this year \$5,000 additional for the purchase of books on history and economies.

Nebraska will enter a new library building January, 1894.

The introduction of the so-called seminary method of instruction, especially in literary and philosophical subjects, is urgently important and ought not to be delayed a moment longer than is absolutely necessary. In this whole matter, applicable alike to many departments, one essential to success is proper room for expansion and development. Your attention is already directed to this and I am sure it will receive your earnest consideration.

These are slight references to the growing needs of the University as it now is, or as the natural development of the present departments require. What has been said indicates the necessity for more funds for current expenses. The accounts of the treasurer and the estimates of the business agent show that we cannot go on as we have been recently doing without more available means. The expenses of the last two years considerably more than equal the estimated receipts for the next two years, upon the basis of present resources. The urgency of the demand for money is thus made apparent, even if advance beyond the present status is not undertaken. Bridling every lofty ambition and rationally considering even the most modest requirements of the times and circumstances, it seems to me an appeal to the legislature should be made at its next session for double the amount heretofore received for annual expenditure, and that this item should be kept to the front, notwithstanding the need and hopes for at least three new buildings.

Further aid in instruction for next term is urgently needed in freshman mathematics and in mechanical drawing. During the present term it was found practically impossible for Professor Myers to do all the work required in the former subject and one class was given to Mr. Thompson. For the next term this is also impracticable as both algebra and geometry must be taught in the preparatory classes. Probably the same necessity for more teaching force will exist in the spring term. I respectfully ask that leave be given to secure one or more instructors for the subjects named at a maximum cost of \$300.00 for each term. For further request for aid in the department of mechanical engineering I refer to the report of Professor Scribner herewith submitted.

It is an honored custom in institutions of learning to confer upon distinguished members of a faculty the title of professor *emeritus* when such persons retire from the active duties and responsibilities of chairs made eminent by their occupancy. Following this idea I take this opportunity of asking you to consider the name and services to the University of Dr. John M. Gregory, the first regent of the University, of whom and of whose work you all know. His studies in political and social sciences make him prominent among specialists in these subjects and indicate the propriety of naming him professor *emeritus* of political economy. This may be understood as a compliment to him and at the same time as an honor to the University in still connecting his name with its affairs, without implying service or salary.

It gives me pleasure to inform you that Professor Hills has been promoted by the Secretary of War to a captaincy—a well deserved honor. As it would be very disadvantageous to us to have a change made now in the military instruction, efforts have been made to have Captain Hills' detail here continued for the period originally made. His promotion does not necessarily cause his removal from his present position, and we hope he may not be ordered away.

As it is impossible for him to meet the students for recitation at any other hour than from 3 to 4 o'clock it is likewise impossible for him further to divide his classes in drill regulations. According to the proposal made at your last meeting and referred to me for report I recommend that an instructor be provided at an expense of not over \$30.00 for the term.

Quite separate and apart from the foregoing, but very desirable now as an addition to existing features of the University, stands the organization of a law school. This is not a new subject to you, but is not the time ripe for a movement in that direction? There are about fifty students now in the University who would like to take a course in law here if the instruction could be furnished. The school is asked for by influential members of the legal profession and it is believed the movement would receive the endorsement of their entire body. The equipment need not be large, compared with that of the technical departments, and the instruction would not be of an expensive kind. There seems to be nothing in the location or in the nature of things to prevent an excellent outcome to an effort of this kind. The only apparent obstacle in the way is the want of means for founding and support. It seems to me a proper presentation to the legislature would be likely to meet a favorable reception from the fact that so large a proportion of that body belongs to the profession of the law. Such a school could be taken care of without a special building, if the present quarters are relieved to the extent hoped for by provisions for the engineers and for the library. The main thing to start with in the way of equipment would be a library, and this should be a good one, for which a liberal appropriation should be asked.

A school of pharmacy ought to be organized soon, in connection with the chemical department. This would be the natural development of what we already have and of the instruction already undertaken. The rooms in the third story of the Chemical Laboratory will accommodate the department so that the only cost for the establishment of the school would be that for furnishing and equipment. Of course the instruction

would need to be provided, though a considerable part of what would be demanded is now given.

For your information upon a subject which came before you last winter, I will state that a movement is on foot to consolidate two leading colleges of medicine in Chicago and to make the combined institution a department of Chicago University. This may have a bearing upon the question of establishing a medical department in connection with the University of Illinois.

I submit the annual farm report from Professor Morrow:

#### FARM REPORT.

UNIVERSITY OF ILLINOIS, Dec. 10, 1892.

*Dr. T. J. Burrill, Acting Regent,*

SIR: I present the following report of the financial operations of the University farm for the year ending December 1, 1892:

#### FINANCIAL STATEMENT FOR 1892.

Receipts for the year.....	\$3,151 53	
Expenditures for year.....	3,698 14	
Balance against farms.....		\$546 61
Inventory salable property, Dec. 1, 1891.....	\$13,165 00	
Inventory salable property, Dec. 1, 1892.....	9,835 00	
Reduction during year.....		3,330 00
Balance against farm for year.....		\$3,876 61
<i>Receipts.</i>		
Live stock—		
Cattle.....	\$1,284 41	
Horses.....	270 00	
Hogs.....	549 13	
Dairy products.....	359 78	
Poultry.....	5 75	
		\$2,469 07
Field products—		
Wheat.....	\$292 70	
Hay.....	80 13	
Other grains.....	97 09	
		\$469 92
Work.....		168 99
Miscellaneous.....		43 55
Total receipts.....		\$3,151 53
Balance.....		546 61
		\$3,698 14
<i>Expenses.</i>		
Labor.....		\$2,028 83
Lumber, paints and labor.....		491 66
Machinery, hardware and repairs.....		260 57
Live stock account.....		679 14
Harness.....		61 90
Seeds.....		71 91
Binding twine, etc.....		29 80
Black-mithing.....		20 50
Miscellaneous.....		53 83
Total.....		\$3,698 14

The cost of re-roofing, painting, and otherwise repairing the large barn on the stock farm, and of other repairs of permanent character, would, if deducted, bring receipts and expenses about together.

*Financial Statement—Concluded.*

<i>Inventory Dec. 1, 1892.</i>		
<b>Live stock—</b>		
Horses, 14 at 100.....	\$1,400 00	
Colts, 11 at \$65.....	715 00	
Pony.....	35 00	
		\$2,150 00
<b>Pure bred cattle—</b>		
Shorthorns.....	46	
Herefords.....	10	
Holsteins.....	12	
Jerseys.....	2	
	70 at \$35....	2,450 00
Steers and calves, 20 at \$15.....		300 00
Hogs, 55 at \$8.....		440 00
Poultry.....		10 00
<b>Total live stock</b> .....		\$5,350 00
<b>Farm products—</b>		
Hay, 200 tons at \$7.....	\$1,400 00	
Corn, 4,250 bushels at 34 cents.....	1,445 00	
Oats, 800 bushels at 30 cents.....	240 00	
Ensilage, fodder, straw, etc.....	300 00	
Accounts and miscellaneous.....	100 00	
		\$3,485 00
<b>Implements and machinery</b> .....		1,000 00
<b>Total inventory</b> .....		\$9,835 00

Compared with the inventory of last year this shows a reduction of \$3,330. This remarkable reduction is due to the valuation put upon the cattle, which are now estimated at their value without reference to their purity of breeding. For several years past the pure bred cattle industry has been greatly depressed. The valuation of the University herds has been reduced year by year, but until now they have been kept above what they would sell for as grade or common stock. While there has been a slight improvement in the demand for best fat cattle there is almost no demand for pure bred stock for breeding stock. The 70 head of pure bred cattle, now valued at \$2,450, would properly have been appraised at from \$7,000 to \$10,000 eight years ago.

This showing is unfavorable, but after years of hoping for improvement, I have come to share the belief of many stock men that there is little hope of improvement in the near future, and to believe that it will be wisest to reduce the herds to small proportions as rapidly as may be. All bull calves for the year have been castrated and the female stock sold for beef during the year have necessarily been at prices much below the moderate valuation placed upon it a year ago. We have a much larger stock of farm products than one year since, the crops of the year having been fairly good notwithstanding the remarkably wet spring, which increased the cost of cultivation. The attacks of the army worm caused a loss of probably near 1,000 bushels of oats.

Respectfully submitted,

G. E. MORROW.

I present also the report of the board of direction of the Agricultural Experiment Station, with my approval of its recommendations.

AGRICULTURAL EXPERIMENT STATION.

*Prof. T. J. Burrill, Acting Regent of the University of Illinois,*

DEAR SIR: The board of direction of the Agricultural Experiment Station, of the University of Illinois, makes this report of its work for the past three months and these recommendations.

The accompanying papers give the financial statements:

Paper A is a statement of the expenditures for the quarter ending September 30, 1892.

Paper B is a list of the warrants drawn during the same quarter, and with it are the vouchers for audit, No. 1 to 63, inclusive, except No. 14.

Paper C is a statement for expenditures for the current quarter up to December 1.

Paper D is a statement of the estimates for the quarter ending March 31, 1893.

The board of trustees is asked to make appropriation of station funds according to these estimates.

The Board of Direction will continue much of the work already authorized and asks authority to undertake new work as follows:

1. To investigate economic methods of fattening heifers and dry cows in winter.
2. To compare stable and shed feeding of cattle in winter.
3. To investigate economic methods of wintering work horses.
4. To ascertain whether butter with the requisite commercial flavor can be had by churning sweet, ripened cream.

Respectfully submitted,

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

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

Board expense.....	\$3 00
Books and publications.....	49 62
Botanical apparatus.....	60 63
Bulletins and report.....	48 75
Chemical apparatus.....	145 39
Fuel and lights.....	50 00
Incidentals.....	1 75
Printing, stationery, and postage.....	10 75
Salaries.....	1,943 33
Tools and supplies.....	26 18
Wages and Teams.....	1,248 44
Sundry experiments—	
Beet and wheat experiments.....	10 30
Dairying experiments.....	13 85
Total.....	\$3,611 99

PAPER C—STATEMENT OF APPROPRIATIONS, EXPENDITURES AND BALANCES  
FOR QUARTER ENDING DEC. 31, 1892.

	Appropriated.	Expended.	Balances.
Buildings and repairs.....	\$25 00		\$25 00
Board expenses.....	40 00		40 00
Books and periodicals.....	250 00		250 00
Botanical apparatus.....	10 00		10 00
Bulletins.....	350 00		350 00
Chemical apparatus.....	75 00	\$30 00	45 00
Fuel and lights.....	100 00		100 00
Incidentals.....	25 00		25 00
Printing, stationery, and postage.....	25 00		25 00
Salaries.....	1,985 00	1,323 32	661 68
Seeds and trees.....	20 00		20 00
Tools and supplies.....	25 00		25 00
Wages and teams.....	900 00	442 20	457 80
Sundry experiments—			
Dairying experiments.....	100 00	8 09	91 91
Wheat and other experiments.....	50 00		50 00
Columbian Exposition work.....	50 00		50 00
Total.....	\$4,030 00	\$1,803 61	\$2,226 39

## PAPER D—ESTIMATES FOR THE QUARTER ENDING MARCH 31, 1893.

Buildings and repairs .....	\$25 00
Board expenses.....	40 00
Books and publications .....	50 00
Botanical apparatus.....	10 00
Bulletins.....	750 00
Chemical apparatus.....	50 00
Fuel and lights.....	100 00
Incidentals.....	25 00
Printing, stationery, and postage.....	25 00
Salaries.....	1,985 00
Seeds and trees.....	100 00
Tools and supplies.....	25 00
Wages and teams.....	800 00
Sundry experiments—	
Dairying experiments.....	150 00
Exhibit at Columbian Exposition.....	50 00
Total.....	\$4,185 00

## APPROPRIATIONS ASKED.

At the last meeting several requests for appropriations of money were referred to committees, of which I was a member, and I present herewith the recommendations of these committees:

For the college of engineering, an Amsler's Planimeter and an Amsler's Integrator.....	\$150 00
For apparatus in experimental mechanical engineering.....	400 00
For microscopes for zoölogical department.....	400 00
For casts, photographs, etc., for school of art and design.....	30 00

The Faculty asks for the special sums named below for the purposes indicated. Communications upon each of these subjects accompany the requests:

For university extension purposes .....	\$100 00
For a university journal or bulletins, \$500 per annum, but for this year. ....	100 00

The following requests are made as shown, with explanatory reasons given in the several papers:

By Professor Ricker, as dean of the college of engineering, aid to the Technograph.....	\$100 00
By your committee on library, for periodicals for 1893. ....	100 00
By Professor Shea, for physical apparatus.....	500 00
By Professor Shea, for electrical laboratory.....	1,229 00
By Professor Talbot, for an extensometer.....	135 00
By Professor Talbot, for material for testing laboratory.....	40 00
By Professor Baker, for repairs of instrument.....	25 00
By Professor Baker, for drawing tables .....	12 00
By Professor McIntosh, for <i>materia medica</i> specimens..	40 00
By Professor Palmer, for repairs to photographic rooms.....	75 00
By Professor Moss, for photographs, maps, etc.....	150 00

Leave to order needed supplies and apparatus is asked as follows:

By department of chemistry.....	\$1,000 00
By department of physics.....	1,750 00
By department of electrical engineering.....	8,100 00
By department of botany .....	200 00
By department of psychology.....	1,350 00

I respectfully ask the privilege of securing needed extra instruction for the winter, not exceeding \$300.

Respectfully submitted,

T. J. BURRILL, *Acting Regent.*

The board then adjourned to 8 o'clock a. m., Wednesday.



## SESSION OF WEDNESDAY.

The board met pursuant to adjournment.

The treasurer, Mr. Bunn, presented his report, which was referred to the finance committee.

## TREASURER'S REPORT.

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

1892.	<i>Dr.</i>			
September 6	To balance.....			\$89,478 02
" 30	To amount received on account buildings and grounds.....	\$12 00		
" 30	" " " agricultural department.....	521 06		
" 30	" " " horticultural department.....	84 45		
" 30	" " " university fees.....	4,175 00		
" 30	" " " preparatory year.....	425 00		
" 30	To rent Griggs farm.....	320 00		
October 1	To interest on Jasper county bonds.....			5,587 51
" 8	" " land contract No. 47, M. Hubka.....			187 50
November 1	" " Sangamon county school bonds.....	\$84 00		27 33
" 8	" " Cass county school bonds.....	216 67		
" 10	" " Douglas county school bonds.....	600 00		
" 30	To amount received on account buildings and grounds.....	20 00		900 67
" 30	" " " mechanical department.....	184 61		
" 30	" " " architectural department.....	1,591 54		
" 30	" " " agricultural department.....	985 18		
" 30	" " " horticultural department.....	88 75		
" 30	" " " chemical laboratory.....	250 00		
" 30	" " " Minnesota lands.....	90 00		
" 30	" " " university fees.....	1,670 50		
" 30	" " " preparatory year.....	635 84		
				5,536 42
				<u>\$101,667 45</u>
1892.	<i>Cr.</i>			
November 30	By amount paid on account board expense.....	\$280 08		
" 30	" " " salaries.....	3,198 97		
" 30	" " " buildings and grounds.....	102 32		
" 30	" " " fuel and lights.....	748 52		
" 30	" " " stationery and printing.....	233 61		
" 30	" " " preparatory year.....	570 00		
" 30	" " " mechanical department.....	284 02		
" 30	" " " architectural department.....	1,179 49		
" 30	" " " agricultural department.....	1,354 52		
" 30	" " " horticultural department.....	10 27		
" 30	" " " military department.....	50		
" 30	" " " laboratories.....	880 73		
" 30	" " " library and apparatus.....	15 91		
" 30	" " " incidental expenses.....	78 90		
" 30	" " " <i>Illini</i> .....	\$93 33		\$8,937 84
" 30	" " " furniture and fixtures.....	66 31		
" 30	" " " gymnasium.....	105 75		
" 30	" " " university extension.....	24 10		
" 30	" " " library cases.....	132 45		
" 30	" " " accredited schools.....	6 00		
" 30	" " " farm barn.....	5 20		
" 30	" " " art department.....	25		
" 30	" " " Minnesota lands.....	168 01		
" 30	" " " water supply.....	100 00		
" 30	" " " premium on bonds.....	3,212 00		
" 30	" " " Natural History Hall.....	1,200 00		
" 30	" " " dedication Natural History Hall.....	219 50		
" 30	" " " heating apparatus.....	61 13		
				5,384 08

*Treasurer's Report—Concluded.*

1892.		<i>State Appropriations—</i>			
November	30	By amount paid on account	buildings and grounds.....	\$817 99	
"	30	"	" apparatus and materials.....	167 90	
"	30	"	" mechanical and architect's shops.....	552 14	
"	30	"	" books and publications.....	10 99	
"	30	"	" cabinets.....	31 40	
"	30	"	" expenses of instruction.....	6,449 88	
"	30	"	" heating Military Hall.....	76 31	
"	30	"	" Natural History Hall.....	15,015 58	
"	30	"	" heating and furniture for Natural History Hall.....	5,755 91	
"	30	"	" metallurgical laboratory.....	14 32	
"	30	"	" State Laboratory of Natural History.....	1,296 22	
"	30	"	" United States fund.....		\$30,188 64
		Balances—			7,491 38
		Current funds.....		\$7,159 92	
		State appropriations.....		29,183 54	
		United States fund.....		13,322 10	
					49,665 56
					<u>\$101,667 45</u>

URBANA, December 13, 1892.

JOHN W. BUNN, *Treasurer.*

The treasurer also reported that he had bought \$6,000 of Mattoon five per cent., twenty year, school bonds, paying therefor \$150 premium and \$30 accrued interest; and he asked for an appropriation of \$180. This amount was appropriated from current funds.

On motion of Mr. Cobb, it was voted that in section 6 of the plan of organization of the Agricultural Experiment Station, adopted March 21, 1888, the words "by the president of the board of trustees, and countersigned by the president of the board of direction of such station," be stricken out, and that in their place these words be inserted: "As are university warrants issued for other purposes, in payment of bills approved by the president of the board of direction."

The committee on instruction made the following report:

*To the Trustees of the University of Illinois,*

GENTLEMEN: Your committee on instruction begs leave to report that in consideration of his services as regent of this University, Dr. John M. Gregory be elected professor *emeritus* in political economy, without for the present assignment to duty or salary, and that the regent be instructed to notify Dr. Gregory of his election.

Respectfully submitted,

F. M. MCKAY,  
HENRY RAAB, } *Committee on Instruction.*  
G. R. SHAWHAN, }

On motion of Mr. Cobb the report of the committee was accepted and the election was made as recommended.

The business agent, Professor Shattuck, presented his report:

## BUSINESS AGENT'S REPORT.

UNIVERSITY OF ILLINOIS, Dec. 18, 1892.

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

SIR: I have the honor to hand you the following papers due from me at this time:

Paper A, a statement of current appropriations for the three months ending November 30, 1892.

Paper B, a statement of state appropriations, November 30, 1892.

Paper C, a statement of the United States fund.

Paper D, a list of vouchers presented for audit, being 1,076 to 1,375, inclusive.

Paper E, an estimate for the nine months ending September 1, 1893.

Paper F, an estimate for the three months ending March 1, 1893.

The board is requested to make appropriations for the estimated expenses of these three months as given in this paper.

It is also requested to make appropriations for the bills in paper G and the last two items of paper A. The expenditures were authorized by the board, but no sums appropriated for them.

The following assignments from the state appropriations and the United States fund are asked for:

State, buildings and grounds, general repairs.....	\$400 00
State, mechanical and architectural shops, salaries, power, etc..	550 00
State, instruction.....	6,000 00
United States fund, salaries for instruction.....	4,000 00
<b>Total.....</b>	<b>\$10,950 00</b>

Attention is also requested to paper H, a communication from the Urbana & Champaign Electric Street Railway Company.

Respectfully submitted,

S. W. SHATTUCK,

*Business Agent.*

PAPER A—CURRENT APPROPRIATIONS.

Sept. 13 and Nov. 15, 1892.	Appropriated.	Receipts also appropriated.	Expended.	Balance.
Board expenses.....	\$500 00	.....	\$280 08	\$219 92
Salaries for instruction.....	15,995 00	.....	1,826 54	1,398 72
{ Current.....	.....	.....	6,449 88	
{ State.....	.....	.....	6,319 86	
{ U. S. fund.....	.....	.....	1,372 43	292 57
Salaries for services.....	1,665 00	.....	102 32	129 68
Buildings and grounds.....	200 00	\$32 00	748 52	751 48
Fuel and lights.....	1,500 00	.....	233 61	166 39
Stationery and printing.....	400 00	.....	570 00	510 84
Preparatory year.....	.....	1,080 84	284 02	100 59
Mechanical department.....	200 00	184 61	1,179 49	612 05
Architectural department.....	200 00	1,591 54	1,354 52	351 72
Agricultural department.....	200 00	1,506 24	10 27	262 93
Horticultural department.....	100 00	173 20	50	99 50
Military department.....	100 00	.....	880 73	19 27
Laboratories.....	650 00	250 00	15 91	34 09
Library and apparatus.....	50 00	.....	78 90	121 10
Incidentals.....	200 00	.....	.....	.....
<i>Sundries.</i>				
<i>Illini.</i> .....	93 33	.....	93 33	.....
Furniture and fixtures.....	230 00	.....	66 31	163 69
Gymnasium.....	200 00	.....	105 75	94 25
Gymnasium for women.....	120 00	.....	.....	120 00
University extension.....	100 00	.....	24 10	75 90
Library cases.....	122 45	.....	122 45	.....
Accredited schools.....	81 30	.....	6 00	75 30
Farm barn.....	112 88	.....	5 20	107 68
Art department.....	40 50	.....	25	40 25
Students' welfare committee.....	30 00	.....	.....	30 00
Band music.....	25 00	.....	.....	25 00
Minnesota lands.....	80 92	90 00	168 01	2 91
Water supply.....	100 00	.....	.....	.....
Premium on bonds.....	3,212 00	.....	3,212 00	.....
Natural History Hall.....	1,200 00	.....	1,200 00	.....
Dedication of Natural History Hall.....	.....	.....	219 50	.....
Heating apparatus.....	.....	.....	61 13	.....

## UNIVERSITY OF ILLINOIS.

## PAPER B—STATE APPROPRIATIONS.

	Received.	Expended.	Balance.	Assigned.
Taxes on Minnesota lands.....	\$3,044 23	\$3,044 23		
Buildings and grounds.....	5,000 00	3,771 74	\$1,228 26	\$213 26
Apparatus and material.....	3,400 00	2,232 40	777 60	273 31
Mechanical and architectural shops.....	4,000 00	2,052 14	1,447 86	184 07
Books and publications.....	2,000 00	1,191 19	808 81	808 81
Cabinets.....	500 00	215 34	284 66	284 66
Expenses of instruction.....	40,000 00	26,449 88	13,550 12	13,550 12
Heating Military Hall.....	3,500 00	3,107 17	392 83	392 83
Natural History Hall.....	60,000 00	60,000 00		
Heating and furniture for same.....	10,000 00	6,826 91	4,173 09	4,173 09
Metallurgical laboratory.....	4,000 00	3,967 57	32 43	32 42
Total.....	\$135,044 23	\$112,348 57	\$22,695 66	\$9,912 58
Illinois State Laboratory of Natural History.....	15,650 27	9,162 39	6,487 88	2,758 26

## 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	1,856 23	\$143 77	\$143 77
Total.....	\$15,000 00	\$14,856 23	\$143 77	\$143 77
<i>Year Ending June 30, 1891.</i>				
Before reported on.....	\$13,810 00	\$13,810 00		
Architectural department.....	1,430 00	1,233 59	\$196 41	\$196 41
Geological laboratory.....	60 00	44 42	15 58	15 58
College of engineering.....	700 00	700 00		
Total.....	\$16,000 00	\$15,788 01	\$211 99	\$211 99
<i>Year Ending June 30, 1892.</i>				
Before reported on.....	\$12,307 00	\$12,307 00		
Library.....	2,000 00	1,186 84	\$813 16	\$813 16
Architectural department.....	233 00	154 37	78 63	78 63
Mechanical department.....	1,100 00	1,003 40	96 60	96 60
Civil engineering department.....	260 00	260 00		
English literature.....	150 00	30 23	119 77	119 77
Chemical department, desks.....	350 00	350 00		
Metallurgical laboratory.....	100 00		100 00	100 00
Physical laboratory.....	500 00	408 96	91 04	91 04
Total.....	\$17,000 00	\$15,700 80	\$1,299 20	\$1,299 20
<i>Year Ending June 30, 1893.</i>				
Salaries for instruction.....	\$9,000 00	\$6,319 86	\$2,680 14	\$2,680 14
Mining engineering department.....	50 00		50 00	50 00
Agricultural department, lectures.....	250 00	13 00	237 00	237 00
Unassigned.....	8,700 00		8,700 00	
Total.....	\$18,000 00	\$6,332 86	\$11,667 14	\$2,967 14

On motion of Mr. Cobb, assignments were made as follows:

From state appropriation for buildings and grounds, for general repairs.....	\$400 00
From state appropriation for mechanical and architectural shops, for salaries, power, etc.....	550 00
From State appropriation for instruction.....	6,000 00
From U. S. fund for instruction.....	4,000 00

On motion of Mr. Cobb, appropriations were made from current funds for the expenses of the next three months:

Board expenses.....	\$500 00
Salaries for instruction.....	\$15,995 00
Salaries for services.....	1,765 00
Buildings and grounds.....	300 00
Fuel and lights.....	2,000 00
Stationery and printing, etc.....	400 00
Laboratories.....	400 00
Library and apparatus.....	50 00
Incidentals.....	200 00
Mechanical department.....	200 00
Architectural department.....	200 00
Agricultural department.....	200 00
Horticultural department.....	100 00
Military department.....	100 00
Gymnasium, balance.....	214 25
University extension, balance.....	75 90
Water supply.....	100 00
Furniture and fixtures, balance.....	163 69
Students' welfare committee, balance.....	30 00
Accredited schools and certificates, balance.....	200 30
Band music.....	25 00
<i>Ullini</i> subscription.....	186 67
Art department.....	40 25
Total.....	\$23,846 06

Appropriations were also made from current funds

For dedication of Natural History Hall.....	\$219 50
For repairs of heating apparatus.....	61 13
For hose for roof of University Hall.....	20 00
For insurance on arms.....	23 47
For expenses of delegate to meeting of Association of Am. Agricultural Colleges and Experiment Stations.....	52 95

The communication from the Urbana and Champaign Electric Railway Company, with regard to a waiting house on Green street, in front of University Hall, was referred to the regent and the committee on buildings and grounds, with power to act, and \$100 was appropriated from current funds, which the committee may use if found necessary.

It was voted that interest on land contracts should be collected promptly.

From current funds \$300 was appropriated, on motion of Mr. Shawhan, for additional instruction during the winter term.

On motion of Mr. Raab, \$100 was appropriated from current funds for university extension work.

It was voted not to make an appropriation for the University Extension Magazine.

On motion of Mr. McKay, \$100 was appropriated for the publication of a university journal or bulletins.

On motion of Mr. McKay, \$100 was appropriated for the *Technograph*, the University to have a page of free advertising.

On motion of Mr. Raab, \$100 was assigned from the United States fund for the purchase of periodicals for the library.

On motion of Mr. Cobb, leave was given to order supplies and apparatus for the chemical laboratory to the amount of \$1,000. Also, leave was given to order supplies and apparatus for the botanical laboratory to the amount of \$200.

On motion of Mr. Cobb, Professor Shea, the business agent, and the regent were given authority to order, for the department of physics and electrical engineering, supplies and apparatus to the amount of \$4,000.

All these orders for supplies and apparatus are to be made to be paid for after the 1st of July.

Eight hundred dollars was appropriated from the United States fund for the use of the department of physics and electrical engineering, to be expended by Professor Shea, the business agent, and the regent.

Forty dollars was appropriated from the U. S. fund for the testing laboratory.

Thirty-seven dollars from state appropriation for apparatus and material was appropriated for civil engineering.

One hundred and fifty dollars from the U. S. fund was appropriated for the purchase of a planimeter and an integrator for the engineering college.

From the U. S. fund \$40 was appropriated for *materia medica* for the veterinary department.

From the U. S. fund \$400 was appropriated for the purchase of microscopes for the zoological department.

From the U. S. fund \$400 was appropriated for the use of the mechanical department.

From state appropriation for apparatus and material \$30 was appropriated for the use of the art department.

Two hundred dollars was appropriated from the state appropriation for apparatus and material for procuring apparatus to be used in experimental psychology.

On motion of Mr. Cobb, assignments of funds of the State Laboratory of Natural History were made as follows, for the quarter ending March 31, 1893:

For field, office, and incidental expenses.....	\$375 00
For salaries and assistance.....	875 00
For publication of bulletins.....	125 00

Assignments of Experiment Station funds and authority to undertake new work were granted, as asked in the report of the board of direction of the Station.

Authority was also given the board to order for the laboratories of the Station, on satisfactory bids, chemical supplies and apparatus to the amount of \$225, and botanical supplies and apparatus to the amount of \$50.

The committee on buildings and grounds made the following report:

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

GENTLEMEN: Your committee on buildings and grounds reports in regard to the petition of the women students asking the trustees to erect a women's dormitory and boarding hall, that it thinks it impossible, with the present income and the large increase of appropriations required in the educational department, to undertake this matter in the near future.

We believe this work might be undertaken by the citizens of Champaign and Urbana with prospect of results that would be as creditable to them as useful to the University, the board of trustees being in entire sympathy with such a movement.

We further report that we have had drawn new plans and have had estimates prepared for three new buildings in accordance with your instructions. The short time allowed enabled us to prepare sketches in the simplest form only, but the estimates have been carefully made.

The library building is designed with book rooms in the central part, and the reading rooms in the wings.

The building, with book rooms and one wing, can be erected for..	\$125,000
The second wing may be added at a later date for.....	70,000
The museum building will cost.....	90,000
The engineering building will cost.....	160,000

These estimates include heating, apparatus, and furniture.

The expense incurred in this work has been \$90, and we ask that this amount be appropriated for that purpose.

We recommend that Professor Ricker be paid the balance due on his contract as architect of Natural History Hall—\$250.

We ask that \$250 be appropriated for gas fixtures for Natural History Hall, to be used under the direction of the committee and architect.

The heating apparatus and plumbing contracts for Natural History Hall will be completed before the next meeting of this board. We ask that you empower your committee to accept the work and pay for the same when satisfactorily completed.

Your board failed to appropriate the \$1,500 asked in our report of Sept. 13th, and we ask you now to appropriate this sum to be used on building and on heating and furnishing as may be needed. This amount will complete the work as there reported.

Respectfully submitted,

S. A. BULLARD,  
NELSON W. GRAHAM,

*Committee on Buildings and Grounds.*

On motion of Mr. Cobb the report of the committee was accepted, appropriations were made as asked in the report, and authority was given to accept and pay for the heating and plumbing of Natural History Hall when satisfactorily completed.

The committee to which the request of the Academy, that it be permitted to admit women students as members, made a report, and, on motion of Mr. McKay, the board declined to grant the request of the society.

The special committee on legislation made the following report:

APPROPRIATIONS TO BE ASKED OF THE LEGISLATURE.

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

GENTLEMEN:—Your committee on legislative appropriations begs leave to make the following report:

We have made a careful estimate of the expenses of the University for the years 1893 and 1894, and the needs of the University for several special expenses, to be provided for by special appropriations as follows:

	1893.	1894.	1893-94.
<b>For current expenses—</b>			
Taxes.....	\$1,600 00	\$1,600 00	
Current repairs and improvements, etc.....	4,000 00	4,000 00	
Apparatus and materials in laboratories.....	1,500 00	1,500 00	
Instruction in shops.....	2,500 00	2,500 00	
Library, books, and publications.....	5,000 00	5,000 00	
Museum, collecting and mounting specimens.....	1,000 00	1,000 00	
Instruction in departments.....	40,000 00	40,000 00	
Equipment in the several departments.....	4,400 00	4,400 00	
Total.....	\$60,000 00	\$60,000 00	\$120,000 00
For law department.....	20,000 00	20,000 00	40,000 00
<b>For new buildings—</b>			
Engineering building.....	80,000 00	80,000 00	
Library building.....	62,500 00	62,500 00	
Museum building.....	45,000 00	45,000 00	
Total.....	\$187,500 00	\$187,500 00	375,000 00
<b>Special appropriations—</b>			
Furnishing and heating Natural History Hall.....			10,000 00
Enlarging heating apparatus.....			3,000 00
Two new boilers.....			3,500 00
Total.....			\$551,500 00

Respectfully submitted,

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

The report was approved except as to the item relating to a law department.

A petition from the students with regard to additional equipment in the college of engineering, was referred to the committee on legislation.

On motion of Mr Graham, it was voted that when the board adjourns, it adjourn to meet in Springfield at the call of the president.

The committee on finance made the following report:

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

GENTLEMEN: Your committee on finance recommends with regard to Professor Burrill's salary as acting regent, that he be paid \$100 more on account of services for the year ending August 31, 1892; and that from that date his salary be at the rate of \$1,200 a year.

Respectfully submitted.

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

On motion of Mr. Cobb, the report of the committee was accepted, and it was ordered that Prof. Burrill be paid as acting regent in accordance with the recommendation of the committee.

Board adjourned.

S. A. BULLARD,  
*President.*

W. L. PILLSBURY,  
*Secretary.*

#### ADJOURNED SESSION, WEDNESDAY, FEBRUARY 1, 1893

The board met pursuant to adjournment in the office of the Superintendent of Public Instruction, in Springfield at 3 o'clock p. m. Wednesday, February 1, 1893. There were present Lieutenant and Acting Governor Gill and Messrs. Bullard, Cobb, Gore, Graham, Morgan, and Rabb, absent, Messrs Bryant, Clemens, McKay, McLean, and Shawhan.

There were present by invitation the members of the legislature from the 30th senatorial district, Messrs. Dunlap, Carson, Cusey, and Hawks; and of the recently elected members of the board, Messrs. Armstrong and Morrison. Mr. Raymond came in later in the afternoon.

The afternoon session was spent in consideration of the report of the committee on legislation. (See p. 16 of the minutes of the meeting of Dec. 13, 1892.)

The board adjourned to meet at 10 o'clock the next morning.

#### SESSION OF THURSDAY FORENOON.

The board met pursuant to adjournment.

On motion of Mr. Cobb the following resolution was passed,

*Resolved,* That the president of the board of trustees of the University of Illinois is hereby authorized and directed to execute in the name and under the seal of this board deeds, in fee simple, of lands belonging to said University in the counties of Pope, Kandiyohi, and Renville, and the state of Minnesota, to purchasers who have paid the full purchase price thereof, said deeds to be countersigned by the recording secretary of said board.

The board then listened to a paper from the regent, Professor Burrill, with regard to the financial condition of the University and its need of



legislative appropriations for maintenance and for new buildings. Professor Burrill being ill and unable to attend the meeting of the board, this paper was read by the secretary.

On motion of Mr. Graham, it was voted to ask of the legislature, as a separate item, \$1,600 a year for taxes on Minnesota lands, and to increase by \$1,600 the item of \$4,400 a year for "equipment in the several departments," in the report of the committee. The board then took a recess till 2:40 o'clock p. m.

The other matters of the report were severally approved and the report as a whole was approved and referred to a committee on legislation, to be appointed.

To the same committee was also referred the paper from the regent, and with it the papers submitted by Professors Ricker, Forbes, and Snyder, with regard to proposed new buildings.

On motion of Mr. Morgan, it was voted that the president appoint a committee of five members of the board, of which committee the president should be a member and chairman, whose duty it shall be to prepare and cause to be presented to the General Assembly a bill asking for appropriations as indicated by the action just taken by the board, and further, as in their discretion may be found to be advisable; and to promote the passage of said bill.

A bill asking for appropriations for the State Laboratory of Natural History for the next two years was submitted, with a communication in relation thereto from the director of the Laboratory, Professor Forbes. The bill was approved and referred to the committee on legislation for introduction into the General Assembly.

The sums asked are as follows:

For the field work and the office expenses, the sum of \$1,500 per annum.

For the improvement of the library, the sum of \$1,000 per annum.

For salaries and assistance, the sum of \$3,500 per annum.

For the publication of bulletins, the sum of \$250 per annum.

For the illustration of the biennial report of the state entomologist, the sum of \$250 per annum.

For colored drawings of the fishes of Illinois, in illustration of the third volume of the Natural History Survey of the State, the sum of \$600.

The committee on legislation was instructed to prepare and cause to be introduced into the General Assembly a bill to secure the transfer to the treasurer of this board from the state treasury of such sums of money as may accrue to the State of Illinois for the University prior to July 1, 1895, under an act of the congress of the United States, approved August 30, 1890.

Several hundred dollars was appropriated for the annual catalogue.

Two hundred dollars was appropriated for the cost of printing and sending out a circular to the high schools of the State.

One hundred dollars was appropriated for making an exhibit of the University in the "collective exhibit" to be made by the land grant colleges in the Agricultural building at the Columbian Exposition.

The following petition, to which twenty-one names were signed, was received and laid over for further consideration:

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

**GENTLEMEN:** Knowing of the effort making to secure appropriations for the erection of additional buildings at the University, and believing that the action herein proposed will meet the approval of the professor of architecture and will do much to encourage and stimulate the alumni architects to their best effort, and at the same time show that the board believes in its own school of architecture, and those sent out from

it; and believing further that the results obtained will be creditable and satisfactory, we, the undersigned graduates of the school of architecture of the University of Illinois, respectfully petition your honorable board to submit the plans for the proposed buildings to competition, limiting said competition to alumni architects, and conducting it under rules and according to program prepared by the board of trustees and professor of architecture of the University of Illinois.

The board then adjourned to meet at the Leland Hotel, in Springfield, at 7 o'clock p. m.

EVENING SESSION.

The board having met pursuant to adjournment, the president announced the committee on legislation, Messrs. Morgan, Graham, Morrison, McKay, and, by order of the board, the president.

The following statement was approved for publication:

The board of trustees of the University of Illinois has unanimously resolved that the University should be placed on a par with the best of the other state universities, and will ask the General Assembly of this State for ample means to carry its purpose into effect.

The secretary was instructed to communicate a copy of this statement to the alumni association, and to ask the alumni to co-operate heartily with the trustees for the upbuilding of the University.

The board then adjourned.

W. L. PILLSBURY,  
*Secretary.*

S. A. BULLARD,  
*President.*

## MEETING OF MARCH 14, 1893.

The board of trustees of the University of Illinois met in the University Parlor, in Urbana, at 3:30 o'clock p. m., March 14, 1893. There were present Messrs. Armstrong, Bullard, Gore, Graham, McKay, McLean, Morrison, Raab, and Raymond; absent Governor Altgeld, and Messrs. Bryant and Morgan. Mr. Morgan came to attend the meeting, but was summoned away by a telegram received just before the meeting was called to order.

The minutes of the meeting of December 13, 1892, and the adjourned session of that meeting held in Springfield, February 1, 1893, were approved.

Proceeding then to the election of officers of the Board, Mr. Morrison nominated for president for the ensuing year Mr. N. W. Graham, who was elected.

On motion of Mr. Morrison the election of a treasurer was passed.

On motion of Mr. McLean, W. L. Pillsbury was elected for the ensuing year corresponding secretary and recording secretary.

On motion of Mr. Bullard the salary of the secretary was fixed at \$500 for the year.

Mr. McLean offered the following resolution, which was unanimously passed:

*Resolved*, That the thanks of this board be extended to Samuel A. Bullard for the uniform kindness, courtesy, and geniality with which he has presided over the meetings of this board during his term of service as president.

On nomination by Mr. McKay, Mr. Morrison was elected a member of the executive committee.

On nomination of Mr. Morrison, Mr. Bullard was elected a member of the executive committee.

On motion of Mr. Armstrong, a committee of three was appointed to prepare a resolution with regard to Mr. Cobb, who at this time retires from the board.

The regent was then asked to present his report.

## REGENT'S REPORT.

*To the Board of Trustees of the University of Illinois,*

GENTLEMEN:—The enrollment of students for the year now reaches 709. The per cent. of increase over each preceding year during the past five years has been as follows: 1889, 10.61; 1890, 10.07; 1891, 8.51; 1892, 12.31; 1893, to date, 21.61. Of the present number 25 are in the short course in agriculture, leaving of other students 684. It is hardly probable that there will be sufficient increase during the remainder of the year to make full 700 students other than those in the short course mentioned; but the increase this year to date is unprecedented, both in per-

centage and in the actual additional number over the year preceding. Of the whole number, 604 are men and 105 are women; 40 are in agriculture, 373 in the various courses of the college of engineering, 120 in the college of science, 140 in the college of literature, 11 in art and design, 4 in music, and 21 not specified.

At the beginning of the present term Natural History Hall was occupied by the departments for which it was designed. As no new furniture has been provided, the work therein has been carried on at a disadvantage, with such outfit as could be taken from the old quarters. When the building can be properly furnished, we shall have an admirable addition to our University equipment. The rooms vacated in University Hall were at once occupied by other departments and have since proved to be too crowded.

I submit herewith a statement by Professor Frederick in regard to the rooms devoted to his work. The matter is not new and you will not be surprised at the presentation made, but a question of so much importance will command your best consideration.

#### RESIGNATIONS.

Professor Baldwin handed me some time since the following communication:

UNIVERSITY OF ILLINOIS, URBANA, Jan. 27, 1893.

*Thomas J. Burrill, Acting Regent,*

DEAR SIR:—I herewith tender my resignation of the professorship of mining engineering, to take effect September 1, 1893.

I am, very respectfully,

WALTER J. BALDWIN.

This matter has been carefully considered by Professor Baldwin, and he has decided to offer his resignation for the reason only that he concludes that the circumstances of our location and surroundings necessarily prevent and will prevent anything like a large development of his department. He has proved himself to be an energetic, capable man, and a thoroughly qualified specialist. If the course in mining engineering is to be continued, it is a serious misfortune to lose him. This brings before you, however, the consideration of the whole matter. There are now seven students enrolled for the course, against seventeen for the new course established last year in architectural engineering, and eighty-four in that of electrical engineering, begun two years ago. In the last catalogue six students were recorded in mining engineering; there is thus an increase of one this year. The internal conditions have been very favorable during two years for an increase proportionate to that of the other engineering courses. It is the external conditions and relations which appear prejudicial to this, as Professor Baldwin clearly perceives. If, in your opinion, these give reasons for discontinuing the full course, something may still be done, as was attempted before, in connection with the course in civil engineering; or perhaps, still better, by establishing a summer school with special instructors.

Mr. E. K. Hall will also decline reappointment to the place now held by him, as the following shows:

CHAMPAIGN, ILL., March 1, 1893.

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

GENTLEMEN:—I hereby tender my resignation as director of athletics of the University, the resignation to take effect at the close of the present college year.

Very respectfully,

EDWARD K. HALL.

Mr. Hall's services have been highly satisfactory, and he feels great interest in his work; but, inasmuch as he proposes to enter upon the study of a profession, he thinks it wise to leave his present occupation at the end of this year.

A paper from the members of the faculty committee on students' welfare is presented. There is no doubt but that something in the line suggested should be done at the earliest feasible opportunity. The physical as well as the mental and moral well-being of the students demands your wisest consideration, and the appointment, when practicable, of specialists in the line of physical culture for young men and for young women is assuredly desirable.

As bearing in part upon the same thing I submit a communication from Professor Katharine Merrill, and bespeak for it your earnest attention.

#### REPORT ON THE QUESTION OF THE ESTABLISHMENT OF A DEPARTMENT FOR WOMEN.

*Dr. T. J. Burrill, Acting Regent,*

DEAR SIR: Having been requested by you to investigate the question of the establishment of a department for women in the University of Illinois, and learning that there is a more or less general desire on the part of the alumnae and trustees of the University, and also on the part of interested outsiders, to offer to women training and facilities somewhat different from those offered to men, I beg to submit the following facts, and to suggest a course of study that will perhaps meet this desire.

The specific duty that colleges have hitherto imposed upon themselves has been to give students such an intellectual training as would be conducive to the highest usefulness in any walk of life afterwards followed. Whatever manual power was involved in gaining the intellectual has been regarded as incidental and secondary. But in the present age of education there is an active conflict between the demands of scholarship on the one side, and the demands and excessive competition of professional and business life on the other; and the fact that a training purely intellectual does not meet the demands of actual life, applies equally to most men and to most women.

Granted that the education of the future must contain both manual and intellectual elements, should it not be the policy of colleges no longer to limit themselves to the intellectual factors of education, but to give attention also to the manual?

In order to answer this question, colleges must decide whether the fundamental fact back of all education given by them shall remain as it has heretofore been, an increase of intellectual power, with only incidental regard to the manual involved therein.

But the question has already been partially answered by the curricula of many colleges, among them the University of Illinois. These curricula contain not only humanistic and scientific studies, leading to the so-called learned professions; they include also courses that prepare students for successful careers as chemical experts, draughtsmen, engineers, architects, and journalists. If, therefore, we may base opinions on facts and say that the University of Illinois has taken a decided stand in favor of combining intellectual and manual training, the question may reasonably be discussed of increasing the facilities for manual training, provided this is not done at the cost of the intellectual; for as yet the University of Illinois (and other colleges with similar curricula) has refrained from offering courses that directly prepare students for *trades* as distinguished from professions. Though the just graduated engineer may find his life work awaiting him without further technical study, this is not merely because the University felt its duty to be in sending him forth thus fully equipped. It is also because his intellectual training, though by good luck turning him at once into a bread-winner, was of such length and severity as to take equal rank with the training given by philosophy or letters.

Accordingly, if the admission of subjects to college curricula is to depend on their capacity to give, at the same time with the manual power involved, a certain amount of intellectual power as well, courses preparing directly for trades and business must prove themselves capable of being judged by this standard.

Women's colleges and co-educational institutions are slowly recognizing the demand for an increase of facilities in training women manually at the same time that they are trained intellectually. Some of the professions and lines of business above mentioned are open to women as well as to men; but there are some aspects of modern life the study of which, though equally important to men, is perhaps peculiarly adapted to the lives of women. The term domestic science, or more properly, *sanitary science*, includes the subjects referred to. All that has to do with health, public and private and all the questions involved in the relations of health to morals, individual and national, this term should cover.

Sanitary science is new; it has not yet opened to its votaries many professional careers, though the number of trades connected with it is great. But the problems it handles are of the utmost importance to the physician, to the sociologist, and the psychologist. These form its intellectual side, and give to the sanitary scientist his intellectual training. The manual side, such as cookery, practical study of plumbing, or practice with the operations of digestive fluids, are his laboratory work.

In so far, then, as sanitary science has proved, or will prove, itself capable of giving the required amount of intellectual training, it is proper to be included in college curricula. Some of its subjects are already treated there in connection with other sciences.

One important branch of sanitary science is the science of nutrition. Every day, in consequence of the increasing difficulties of domestic service, and of the enormous demands made by modern civilization on the physical strength of men and women, the science of nutrition is felt to be worthy of more consideration. This side of sanitary science, I am led to believe, is chiefly the side whose importance is seen by the alumnae of the University. But in the establishment of a department, other sides must not be overlooked. I therefore offer in tentative form the following outline of a department of sanitary science, saying, by way of justification, that invaluable aid has been derived from the catalogues of departments of domestic science and sanitary science of the Massachusetts Institute of Technology, Pratt Institute of Brooklyn, the University of Chicago, and other institutions where such departments are in operation.

*Curriculum:* German, French, English, physics, chemistry, chemistry of food, chemistry of cooking, biology (especially bacteriology and physiology), hygiene, public hygiene, sociology, physiological-psychology, ethics, architecture, horticulture. *Electives:* Biology, botany, chemistry, political and constitutional history, psychology, anthropology, ethnology, agriculture, landscape gardening.

Most of these subjects are already included in the various departments of this University, and it would perhaps not be impossible, even without increasing the present corps of instructors, to treat them more fully along the lines of sanitary science. Undoubtedly the chief innovation at present in establishing such a department consists in provision for practical and theoretical study of nutrition. For this, special laboratories should be provided and equipped with the best modern appliances, so that the chemical, physiological and economical questions of nutrition may be practically studied. The laboratory work should include the study of the composition, the sources, and the chemical and physical tests of food; its microscopic features, its value and cost. Also the chemical preparation and nutritive value of cereals, meats, soups, salads, desserts, cakes, breads and drinks. Instructors should be engaged who have carefully prepared themselves for this work, and who are capable of handling the subject in the broadest and most effective way.

But another question in the establishment of a department for women has been raised, and is, perhaps, of equal importance with this of increase of manual training. It is the question of improvement in the personal appearance of students, of cultivation of refinement in manner and dress. The foregoing argument will prove, I trust, that such things have no place with either the intellectual or the manual side of collegiate education. But they do have a very important place with the gymnastic side. No collegiate instructor has the right, and he should very seldom arrogate to himself the right, to give personal reproof for uncleanness or disagreeable manners. Nor is it well, I am sure, for a collegiate instructor to attempt to give students general talks on these subjects. Such talks are usually unfruitful: they do not reach the students most in need, and they are regarded as so much disagreeable "scolding." The most that may be done by an instructor whose position does not give him the right to deal with students' physical needs is to serve as a shining example, in the class room and out, of the refinement and courtesy he would inculcate. But the instructors of the gymnasium have just this right, and, indeed, this duty of dealing with students' physical needs, and it is to the instructors of the gymnasium that all such matters should be referred. There should be provided here at the earliest possible moment a well equipped women's gymnasium, with at least one thoroughly trained woman instructor, who not only could direct the exercises, but who should be a physician as well, and able to examine students and prescribe just the kind and amount of exercise each one needs. Gymnastic exercise should then be made compulsory for every woman student, unless she is excused by the director of the gymnasium. In the gymnasium, physical culture, in the broadest sense, should be taught, and this would imply lessons on preservation of health, the dressing and care of the body, on refined manners, and whatever else is necessary to insure sound health and agreeable behavior.

I wish to say in addition, that so long as the conditions of living are so hard here, especially for the young women, and so long as there is no social atmosphere to which students, as students, belong (except what they themselves create, neither the young men nor the young women will take the pains they owe to themselves, and the social status of our students will continue to be low.

In conclusion, therefore, let me urge that the possibilities be at least considered of establishing in this University a department of sanitary science; that as soon as possible laboratories and instructors be furnished for the study of the science of nutrition, and that if by any means there can be provided now a gymnasium with a competent woman director, it shall be done. For this, in my opinion, is of even greater importance to the general health and welfare of the women students than an increase of facilities in manual training.

Respectfully submitted,

KATHARINE MERRILL.

#### MILITARY DEPARTMENT.

I communicate herewith a report of action taken by the faculty, March 13, 1893, and beg leave to emphasize it by my own hearty approval:

The following is a vote passed by the faculty of the University of Illinois, March 13, 1893:

The faculty of the University, remembering with satisfaction the efficient service and peculiarly high qualifications of Lieut. C. B. Hoppin as professor of military science in this University, do ask the regent and trustees of the University to make application to the War Department for the detail of Lieut. Hoppin for service at the University on the expiration of the detail of Captain Hills.

J. D. CRAWFORD,  
*Secretary of the Faculty.*

There are now on file a considerable number of applications for the position to be vacated by Captain Hills, and apparently from excellent men; but Lieut. Hoppin's work here gives him precedence in my mind among them all, and among all whom we are likely to find available. It is important that this matter should have attention at this time, since the choice among suitable men can be more surely secured at an early rather than at a later date. If it is found that Lieut. Hoppin can not be detailed for this purpose, the sooner another is selected the better.

#### EXHIBIT AT THE WORLD'S FAIR.

Professor Morrow, as chairman of the faculty committee on World's Fair, presents an important matter. A letter has been addressed by him, after full consultation, to the Director-in-Chief and one to the president of the Illinois State Board of World's Fair Commissioners, with the hope that some way out of the difficulty may be found. In the meantime it is proper that you should at least be informed upon the subject.

#### A NAVAL ACADEMY.

Commodore Robert Rae, of the Yacht Club of Chicago, has inquired as to the affiliation with the University of the naval academy to be established in Chicago under the direction and patronage of the Yacht Club. This organization is a very strong one and it is supposed that a high grade academy will be established. It is expected to be self-supporting, or at least that no demand will be made upon the University for money now or at any future time if articles of affiliation are entered into. This matter is now presented with the thought that it may be appropriately referred to a committee of conference.

#### FARM REPORT.

The quarterly report of the department of agriculture is as follows:

UNIVERSITY, March 8, 1893.

*Dr. T. J. Burrill, Acting Regent,*

DEAR SIR:—During the three months closing March 1st the financial operations of the university farms have been as follows:

Receipts.....	\$882 22
Expenditures.....	500 05
Balance.....	\$382 17

In view of the increasing pressure of other duties laid upon me, and especially in view of the importance of the work of the Agricultural Experiment Station and the demands this makes on my time and thought, I respectfully request that some change be made in regard to the direct management, at least, of what is known as the stock farm. Especially for the present year, I shall not be able to give the attention to the care of this farm it should receive.

In accordance with the views of the farm committee and other members of the board of trustees, a good deal of attention has been given to stock breeding. A few years ago well bred cattle of different breeds were purchased as foundations for herds. Unfortunately this was done at the beginning of a most extraordinary period of depression in the cattle industry. Thenumbers kept have been reduced somewhat. There is now some promise of improvement in prices. We have also a number of young horses reared on the farm ready for sale, as well as an average supply of breeding sows.

Either of two or three methods are readily open. The land could be rented in whole or part at a good rental, either in cash or for a share of the products. This would involve the least trouble and yield a direct income. If this plan be adopted, some of the land, say 80 acres, should



be reserved, certainly for the present year. So large a part of the experiment farm is taken up with the forestry, orchard, and other horticultural grounds, that less remains than is needed in handling the stock it is desirable to keep for educational and experiment purposes.

If this plan is not thought advisable, a competent man could be employed as foreman, to conduct the farm under general direction. Should this plan be adopted, it will be practically essential to build a cottage, at least, on the stock farm. We have worked at serious disadvantage in many ways since the burning of the old farm house on that farm.

Without assuming to advise as to methods, I earnestly hope some plan may be adopted which will give me more time and strength for my other work. We are having frequently gratifying evidence that many farmers highly appreciate the work of our Agricultural Experiment Station. I much wish to be able to give more time to that work. For this year there are several ways in which my time will be much occupied in connection with the agricultural sides of the World's Columbian Exposition, and this is an additional reason for preferring this request at this time.

I am glad to be able to report a reasonable success in the farmers' short course, given during the present term. Twenty-five young men entered this course regularly; several other students attended the lectures with fair regularity, so that the average attendance has been about thirty, until recently, when some have been called home to prepare for spring work on the farms. A good degree of interest has been manifested, and I have no doubt good has been done and that the general plan should be continued. It seems evident that, for some years to come, we shall have in short courses the only hope for large attendance on direct agricultural teaching in such colleges as this. It is a gratifying fact that some of the young men who have attended the one-term course are planning to return for a full course.

The continuance of a large number of urgent requests that I address farmer's institutes or other agricultural meetings in different parts of the State is both a pleasure and an embarrassment. I have complied with as many of the requests as seemed possible. I have looked with hope to the introduction of University extension work among farmers, but there are some obvious difficulties in the way. Gratifying results have come from giving two or three lectures on related topics at one meeting.

I respectfully suggest that consideration be given to the advisability of supplementing the free short course by special short term "schools," continuing from two to four weeks at first, devoted to a special industry, and each time held in that part of the State in which the selected industry is most prominent. Thus a dairy school might be held in a central point in the dairy region in northern Illinois; a horticultural school in southern Illinois. Possibly as a part of the short course at the University, arrangements might wisely be made to treat some subject as thoroughly as possible during two or four weeks. These "schools" held at other points in the State, should be held in November or December. Probably the annual meetings of the associations devoted to the elected industries would be held at the same place and during the time of the "school." Members of the Experiment Station staff could give instruction at such meetings. Dissemination as well as investigation is a part of the work of such stations. The expenditures for such work need not be large. Bringing instruction in agriculture as near the homes of the people as is possible, and giving it in the form of lectures and discussions, these made the more valuable by being reported by or for the agricultural press, seem the most hopeful method at present available for us.

I am impressed with the loss of time in attending ordinary meetings. I have been twice invited during the present winter to travel more than 500 miles to attend single meetings in our State.

Respectfully submitted,  
G. E. MORROW.

## APPROPRIATIONS.

At the last meeting you appropriated \$25 for the repair of a transit which had been accidentally broken. The instrument cannot be repaired for the sum named and an additional \$25 is now asked. There is also asked an assignment of \$10 for a stand for a sextant in use in the department of civil engineering.

Professor Rolfe desires leave to order from Germany a type collection of crystalline rocks and slides and also rocks and minerals for class use, in all amounting to \$300. Very little has ever been given to the department of geology, and this material is of real necessity.

For the repair of the rifles in use by the University battalion a sum of \$40 is required, and \$20 is asked for the purchase of two additional swords needed by the present organization. The storm flag procured last year is nearly worn out and should be replaced. This will cost about \$10.

There will be some instruction required during the spring term for which provision has not been made, probably costing \$175. For this expenditure your approval is desired.

Mr. Piatt, who holds a fellowship, has taught during the year so far an extra class, which he will continue to teach. For this he should receive additional compensation.

I also ask for \$200 for commencement expenses.

The report of the president of the board of direction of the Agricultural Experiment Station is herewith submitted:

*Dr. T. J. Burrill, Acting Regent, University of Illinois,*

DEAR SIR: The board of direction of the Agricultural Experiment Station begs leave to present the following papers:

Paper A is a report of the expenditures for the quarter ending December 31, 1892.

Paper B is a list of warrants for the same quarter, with the vouchers therefor.

Paper C is a statement of appropriations, expenditures and balances for the present quarter, up to February 28th.

Paper D is a statement of the appropriations which the board of trustees is asked to make to carry on the operations of the station until June 30, 1893.

PAPER A—STATEMENT OF EXPENDITURES FOR THE QUARTER ENDING  
DECEMBER 31, 1892.

Board expenses.....	\$14 06
Books and publications.....	249 99
Bulletins .....	23 10
Chemical apparatus and supplies .....	59 58
Fuel and lights.....	68 00
Incidentals.....	12 43
Printing, stationery, and postage .....	17 00
Salaries.....	1,985 00
Seeds and trees.....	50
Tools and supplies.....	25 00
Wages and teams.....	816 37
Sundry experiments—	
Dairying experiments.....	39 55
Beet and wheat experiments.....	13 15
Columbian Exposition work.....	18 71
Total.....	\$3,342 24

PAPER C—STATEMENT OF EXPENDITURES FOR THE QUARTER ENDING MARCH 31, 1893.

	Appropriated.	Expended.	Balance.
Buildings and repairs .....	\$25 00		\$25 00
Board expenses .....	40 00		40 00
Books and periodicals .....	50 00	\$4 50	45 50
Botanical apparatus .....	10 00		10 00
Bulletins .....	750 00		750 00
Chemical apparatus .....	50 00		50 00
Fuel and lights .....	100 00		100 00
Incidentals .....	25 00		25 00
Printing, stationery, and postage .....	25 00		25 00
Salaries .....	1,985 00	1,823 32	661 68
Seeds and trees .....	100 00		100 00
Tools and supplies .....	25 00		25 00
Wages and teams .....	800 00	431 25	378 75
Sundry experiments—			
Dairying experiments .....	150 00	8 18	141 82
Exhibit at Columbian Exposition .....	50 00		50 00
Total .....	\$4,185 00	\$1,757 25	\$2,427 75

PAPER D—ESTIMATES.

<i>Quarter Ending March 31, 1893.</i>		
Meteorological apparatus .....		\$15 00
<i>Quarter Ending June 30, 1893.</i>		
Building and repairs .....		\$25 00
Board expenses .....		40 00
Books and publications .....		150 00
Botanical apparatus .....		10 00
Bulletins .....		500 00
Chemical apparatus .....		50 00
Fertilizers .....		50 00
Fuel and lights .....		100 00
Incidentals .....		25 00
Printing, stationery, and postage .....		150 00
Salaries .....		1,775 00
Seeds and trees .....		50 00
Tools and supplies .....		50 00
Wages and teams .....		1,100 00
Sundry—		
Dairying experiments .....		100 00
Columbian Exposition work .....		80 00
Total .....		\$4,255 00

The board of direction reports that it continues, until otherwise ordered, the members of its staff in their several positions, each to receive the same salary a year as at present, to-wit:

Professor G. E. Morrow, agriculturist .....	\$1,000 00
Professor T. J. Burrill, horticulturist and botanist .....	300 00
Professor S. A. Forbes, consulting entomologist .....	No salary
Professor D. McIntosh, consulting veterinarian .....	No salary
E. H. Farrington, chemist .....	1,800 00
G. W. McCluer, assistant horticulturist .....	1,320 00
G. P. Clinton, assistant botanist .....	850 00
E. K. Nelson, assistant chemist .....	720 00
F. D. Gardner, assistant agriculturist .....	900 00
W. L. Pillsbury, secretary .....	1,500 00

The board of direction will continue the work already undertaken, and asks at this time authority to take up one new experiment: To test the effect of fertilizers upon potatoes.

Respectfully submitted,

G. E. MORROW,

*President Board of Direction.*

The requests of the board of direction have my approval, and I recommend that they be granted.

Respectfully submitted,

T. J. BURRILL,

*Acting Regent.*

On motion of Mr. Bullard, the board proceeded to the consideration of the several items presented in the regent's report.

Professor Frederick's request with regard to rooms for the school of art and design was referred to the committee on buildings and grounds upon motion of Mr. McLean.

On motion of Mr. McLean, Professor Baldwin's resignation was referred to the committee on instruction.

On motion of Mr. Morrison, Mr. Hall's resignation was accepted.

The communication from the faculty committee on students' welfare, and also Miss Merrill's paper, were referred to the committee on instruction.

The matter of securing again the detail of Lieutenant Hoppin to be professor of military science was referred to the regent and the executive committee, with power to act.

The World's Fair matters were referred to Mr. Gore and the regent, who should report to the executive committee, if they found any action by them needed.

The communication from Commodore Robert Rae was referred to a special committee consisting of Messrs. McKay, Raab and Armstrong, who were instructed to investigate the proposition and report at the next meeting of the board.

The report of Professor Morrow on the farm was referred to the farm committee. The committee was instructed to rent so much of the stock farm as is not needed for Experiment Station purposes and to sell off the cattle and other animals as fast as practicable. The committee was given full power to act.

On motion of Mr. Raab, \$25 was appropriated for the state appropriation for apparatus and material for the repair of the transit, and \$10 from the same fund for the purchase of a sextant stand.

On motion of Mr. Bullard, so much of the communication from the professor of agriculture as relates to short courses was referred to the committee on instruction.

On motion of Mr. Bullard, consideration of Professor Rolfe's request for leave to order a collection of rocks and slides was postponed to the June meeting.

From the state appropriation for apparatus and material, \$70 was appropriated for repair of rifles, and the purchase of two swords and a storm flag.

For instruction in mechanical engineering drawing, an appropriation of \$75 was made from current funds.

For instruction in the mechanical shops, an assignment of \$100 was made from the state appropriation for mechanical and architectural shops.

On motion of Mr. Bullard, it was voted that at the end of the year \$100 should be paid Mr. Piatt for his extra services in teaching.

For commencement exercises, \$200 was appropriated from current funds.

Mr. Bullard stated that a communication had been handed to him by Mr. B. F. Harris, Jr., asking the board to grant the Urbana and Champaign Electric Street Railway Co. permission to run through the University north farm along the line of Wright street, extended south, and that Mr. Harris would be glad to have the board grant him permission to present a brief statement with regard to the matter.

The board directed that Mr. Harris should be heard at the evening session.

The board then adjourned to meet at the Doane House, in Champaign, at 7:30 o'clock p. m.

### EVENING SESSION.

Immediately after the assembling of the board, Mr. Harris was heard on behalf of the request made by the Street Railway Co.

On motion of Mr. Bullard, this matter was referred to the farm committee, to be reported upon before the board should adjourn.

The report of the Agricultural Experiment Station was then considered.

The vouchers were referred to the finance committee.

On motion of Mr. McLean, appropriation of station funds was made, as asked by the board of direction.

Also on motion of Mr. McLean, the appointments of the members of the station staff and their salaries, were approved.

Authority was given the board of direction to undertake the one new experiment.

Messrs. E. E. Chester, of Champaign, R. T. Fry, of Olney, and H. B. Gurler, of DeKalb, were appointed members of the board of direction of the Experiment Station, to represent the State Board of Agriculture, the State Horticultural Society, and the State Dairymen's Association, respectively.

Mr. McKay moved that Mr. Gore and Mr. Raymond be appointed members of the board of direction from the trustees; but upon Mr. Gore's asking to be excused, on the ground that his many duties would preclude his giving this matter the attention it would require, Mr. Morrison's name was substituted in place of his.

Professor Morrow, Professor Burrill, Professor Forbes, and Mr. Farrington were also made members of the board of direction.

On motion of Mr. McKay, Professor Morrow was made president of the board,

Messrs. Chester and Raymond were appointed to constitute, with Professor Morrow, the executive committee of the board of direction.

The request from the camera club for an appropriation to put in repair the photographic room in the chemical laboratory, was referred to the committee on buildings and grounds.

## TREASURER'S REPORT,

Mr. J. W. Bunn, treasurer, presented his report, which was referred to the finance committee:

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

		<i>Dr.</i>		
1892.				
December	13	To balance .....	•	\$49,665 56
1893.				
January	3	To interest on Gallatin county bonds .....	\$300 00	
"	3	" Crawford county bonds .....	300 00	
"	3	" Sangamon county bonds .....	100 00	
"	3	To interest from treasurer .....	1,300 00	
"	21	To redemption land Con. No. 61, A. Maurquadt, taxes .....		1,900 00
February	1	To interest on Champaign school bonds .....		43 00
"	3	To architectural department .....	\$55 36	270 00
"	3	To fuel and lights .....	30 00	
"	11	To int. on land con't No. 5, Ault & Bashor .....	\$46 00	85 36
"	11	" " " 10, John Ellis, assignee .....	45 00	
"	11	" " " 13, H. T. Willis .....	120 00	
"	11	" " " 14, W. L. Collins .....	102 93	
"	11	" " " 19, L. Larson .....	72 00	
"	11	" " " 28, A. L. Wright .....	42 52	
"	11	" " " 31, J. H. Hanson .....	56 00	
"	11	" " " 32, P. C. O'Brien .....	125 48	
"	11	" " " 34, H. & H. J. Swoboda .....	32 00	
"	11	" " " 35, J. H. Rush & Bashor, assignee .....	48 00	
"	11	" " " 36, W. H. Ruyle, assignee .....	120 00	
"	11	" " " 37, W. T. Gore, assignee .....	120 00	
"	11	" " " 38, N. R. Simpson, assignee .....	64 00	
"	11	" " " 40, Joseph Dezort .....	102 38	
"	11	" " " 41, W. M. Losey, assignee .....	68 80	
"	11	" " " 42, N. R. Simpson, assignee .....	106 75	
"	11	" " " 43, Elizabeth Carper, assignee .....	76 27	
"	11	" " " 45, Bilvens & Miller .....	124 48	
"	11	" " " 46, W. H. Ruyle, assignee .....	96 35	
"	11	" " " 53, F. Novotny, assignee .....	80 00	
"	11	" " " 54, B. F. Leiby .....	127 55	
"	11	" " " 57, C. Anderson .....	48 00	
"	11	" " " 58, E. Muhlhausen .....	110 75	
"	11	" " " 59, Frank Havlina .....	19 20	
"	11	" " " 60, James Havlina .....	19 20	
"	11	" " " 62, R. H. Muhlhausen .....	100 00	
"	11	" " " 63, R. O. Braaton .....	7 89	
"	11	" " " 64, E. Lindquist .....	84 00	
"	11	" " " 65, Cuta & Kopacek .....	84 00	
"	11	" " " 66, Peter Larsen .....	84 00	
"	11	" " " 67, J. A. DuBois, assignee .....	56 00	
"	11	" " " 68, B. Pederson .....	14 70	
"	11	" " " 70, Lars Ingebrightsen .....	7 70	
"	11	" " " 71, Thomas Peterson .....	11 20	
"	11	" " " 72, L. A. Treiby .....	84 00	
"	11	" " " 73, Olof Mattson .....	84 00	
"	11	" " " 74, B. Pederson .....	14 70	
"	11	" " " 75, S. J. Hallquist .....	84 00	
"	11	" " " 76, S. J. Hallquist .....	84 00	
"	11	" " " 77, William Buethe .....	70 00	
"	11	" " " 78, William Buethe .....	70 00	
"	11	" " " 79, Ole Sorenson .....	84 00	
"	11	" " " 80, Wm. Buethe, assignee .....	84 00	
"	11	" " " 81, Frank Topka .....	88 79	
"	11	" " " 92, W. R. Lemon .....	16 80	
"	11	" " " 83, Ludvig S. Botten .....	32 20	
"	11	" " " 84, Anton Vesterud .....	15 75	
"	11	" " " 85, Hans Vestrud .....	16 80	
"	11	" " " 86, Anne Hanson .....	18 42	
"	11	" " " 87, Laura R. DuBois .....	90 30	
"	11	" " " 88, T. D. Davidson .....	89 81	
"	11	" " " 89, Ole Olson, assignee .....	78 46	
"	11	" " " 90, A. Skredsvig .....	78 75	
"	11	" " " 91, O. O. Halverson .....	45 15	
"	11	" " " 92, O. O. Halverson .....	45 15	
"	11	" " " 93, O. O. Halverson .....	52 50	
"	11	" " " 94, O. O. Halverson, assignee .....	31 50	
"	11	" " " 96, Henry A. Lia .....	15 05	
"	11	" " " 97, M. O. Batterberry .....	35 00	
"	11	" " " 98, John T. Egan .....	34 25	
"	11	" " " 99, Nels Olson .....	33 68	

*Treasurer's Report—Concluded.*

February	11	To int.on land con't No.100, O. O. Halverson.....	\$15 81	
"	11	" " " " 102, Ludvig Stalman.....	14 19	
"	11	" " " " 103, T. E. Nattan.....	14 22	
"	11	" " " " 104, K. Halvorsen.....	13 07	
"	11	" " " " 107, T. D. Davidson.....	71 40	
"	11	" " " " 108, P. E. Olson.....	67 42	
"	11	" " " " 109, Otto Monson.....	9 33	
"	11	" " " " 110, J. F. Erickson.....	16 60	
"	11	" " " " 111, Per Norberg.....	35 00	
February	28	To amount received on account buildings and grounds.....	\$20 00	\$4,157 75
"	28	" " " " fuel and lights.....	58 60	
"	28	" " " " mechanical department.....	300 34	
"	28	" " " " architectural department.....	665 47	
"	28	" " " " agricultural department.....	728 54	
"	28	" " " " horticultural department.....	68 70	
"	28	" " " " chemical laboratory.....	483 34	
"	28	" " " " Griggs farm, rent.....	320 00	
"	28	" " " " Minnesota land rents.....	118 35	
"	29	" " " " University fees.....	4,412 50	
"	28	" " " " preparatory year.....	945 00	
"	28	" " " " music fees.....	72 90	
				8,193 74
				\$64,315 41
1843.		<i>Cr.</i>		
February	28	By amount paid on account board expense.....	\$153 60	
"	28	" " " " salaries.....	3,879 65	
"	28	" " " " buildings and grounds.....	160 87	
"	28	" " " " fuel and lights.....	2,563 49	
"	28	" " " " stationery and printing.....	373 01	
"	28	" " " " preparatory year.....	723 32	
"	29	" " " " mechanical department.....	440 44	
"	28	" " " " architectural department.....	949 21	
"	28	" " " " agricultural department.....	637 78	
"	28	" " " " horticultural department.....	128 54	
"	28	" " " " military department.....	1 77	
"	28	" " " " laboratories.....	551 94	
"	28	" " " " library and apparatus.....	31 15	
"	28	" " " " incidental expenses.....	209 89	
"	28	" " " " gymnasium.....	157 21	\$10,804 66
"	28	" " " " University extension.....	23 15	
"	29	" " " " accredited schools.....	96 82	
"	29	" " " " military scholarship.....	0 00	
"	28	" " " " water supply.....	100 00	
"	28	" " " " furniture and fixtures.....	165 46	
"	28	" " " " students' welfare committee.....	30 00	
"	28	" " " " band music.....	21 10	
"	28	" " " " art department.....	29 29	
"	29	" " " " agricultural convention.....	52 95	
"	28	" " " " Natural History Hall.....	1,264 54	
"	28	" " " " moving to same.....	68 86	
"	28	" " " " premium on bonds.....	180 00	
"	28	" " " " building estimates.....	90 00	
"	28	" " " " Minnesota lands.....	50 00	
"	28	" " " " heating apparatus.....	403 80	
"	29	" " " " music fees.....	72 90	
"	28	<i>State Appropriations—</i>		2,816 58
"	28	" " " " buildings and grounds.....	\$250 07	
"	28	" " " " apparatus and materials.....	201 14	
"	28	" " " " mechanical and architect's shops.....	652 10	
"	29	" " " " books and publications.....	419 42	
"	28	" " " " cabinets.....	413 00	
"	28	" " " " expenses of instruction.....	6,624 88	
"	28	" " " " heating Military Hall.....	225 00	
"	28	" " " " heating and furnishing Natural History Hall.....	3,887 74	
"	28	" " " " metallurgical laboratory.....	12 35	
"	28	" " " " State Laboratory of Natural History.....	1,135 90	
"	28	" " " " United States fund.....		13,422 73
		Balances—Current funds.....	8,188 53	7,145 95
		State appropriations.....	\$15,760 81	
		United States fund.....	6,176 15	
				30,125 49
				\$64,315 41

URBANA, March 14, 1893.

JOHN W. BUNN, *Treasurer.*

## BUSINESS AGENT'S REPORT.

The business agent, Professor Shattuck, presented his report:

URBANA, March 14, 1893.

*N. W. Graham, President Board of Trustees, University of Illinois,*

SIR: I have the honor to hand you the following financial statements, due from me at this time:

Paper A is that of current appropriations for the three months ending February 28, 1893.

Paper B is a showing of the State appropriations, February 28, 1893.

Papers C and C 2nd give the condition of the U. S. fund at the same time.

Paper D is a list of vouchers presented for audit, being 1 to 300 inclusive.

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

## PAPER A—CURRENT APPROPRIATIONS.

Dec. 13, 1892, and Feb. 1, 1893.	Appropriated.	Receipts also appropriated.	Expended.	Balance.
Board expense.....	\$500 00		\$153 60	\$346 40
Salaries for instruction.....	15,995 00		2,119 01	931 25
Salaries for services.....	1,765 00		6,624 88	
Buildings and grounds.....	200 00	20 00	6,319 86	
Fuel and lights.....	2,000 00	88 60	1,760 64	4 36
Stationery and printing.....	403 00		160 87	59 13
Preparatory year.....		945 00	2,563 49	
Mechanical department.....	200 00	300 34	373 01	26 99
Architectural department.....	200 00	720 83	723 32	221 68
Agricultural department.....	200 00	738 54	949 21	
Horticultural department.....	100 00	68 70	637 78	290 76
Military department.....	100 00		128 54	40 16
Laboratories.....	400 00	483 34	1 77	98 23
Library and apparatus.....	50 00		551 94	331 40
Incidentals.....	223 47		31 15	18 85
			209 89	13 58
<i>Sundries.</i>				
Gymnasium.....	214 25			
University extension.....	175 90		157 21	57 04
Accredited schools.....	200 30		23 15	152 75
Military scholarships.....	60 00		96 82	103 48
Water supply.....	100 00		60 00	
Furniture and fixtures.....	163 69		100 00	
Students' welfare committee.....	30 00		165 46	
Band music.....	25 00		30 00	
<i>Illini</i> subscriptions.....	186 67		21 10	3 90
Art department.....	40 25			186 67
Agricultural convention.....	52 95		29 29	10 96
Natural History Hall.....	1,500 00		52 95	
Moving, etc., to Natural History Hall.....	300 00		1,264 54	235 46
Premium on bonds.....	180 00		68 86	231 14
Building estimates, etc.....	90 00		180 00	
Minnesota lands.....		118 35	90 00	
Technograph.....	100 00		50	117 85
University bulletin.....	100 00			100 00
Heating.....			403 80	100 00
Music fees.....		72 90	72 90	



## PAPER B—STATE APPROPRIATIONS.

	Received.	Expended.	Balance.	Assigned.
Taxes on Minnesota lands.....	\$3,044 23	\$3,044 23	.....	.....
Buildings and grounds.....	5,000 00	4,021 81	\$978 19	\$363 19
Apparatus and material.....	3,000 00	2,423 54	576 46	339 17
Mechanical and architectural shops.....	4,000 00	3,204 24	795 76	81 97
Books and publications.....	2,000 00	1,610 61	389 39	389 39
Cabinets.....	500 00	219 47	280 53	280 53
Expenses of instruction.....	40,000 00	33,074 76	6,925 24	2,925 24
Heating Military Hall.....	3,500 00	3,342 17	157 33	157 33
Natural History Hall.....	60,000 00	60,000 00	.....	.....
Heating and furniture for same.....	10,000 00	9,714 65	285 35	285 35
Metallurgical laboratory.....	4,000 00	3,979 92	20 08	20 08
Total.....	\$135,044 23	\$124,635 40	\$10,408 83	\$4,842 75
Illinois State Laboratory of Natural History.....	15,650 27	10,298 29	5,351 98	2,997 36

## PAPER C—UNITED STATES FUND.

	Received.	Expended.	Balance.	Assigned.
<i>Year Ending June 30, 1892.</i>				
Before reported on.....	\$13,000 00	\$13,000 00	.....	.....
Natural history.....	2,000 00	1,893 88	\$106 12	\$106 12
Total.....	\$15,000 00	\$14,893 88	\$106 12	\$106 12
<i>Year Ending June 30, 1891.</i>				
Before reported on.....	\$14,510 00	\$14,510 00	.....	.....
Architectural department.....	1,430 00	1,252 28	\$177 72	\$177 72
Geological laboratory.....	60 00	44 42	15 58	15 58
Total.....	\$16,000 00	\$15,806 70	\$193 30	\$193 30
<i>Year Ending June 30, 1892.</i>				
Before reported on.....	\$12,917 00	\$12,917 00	.....	.....
Library.....	2,000 00	1,271 95	\$728 05	\$728 05
Mechanical department.....	1,100 00	1,003 90	96 10	96 10
English literature.....	150 00	30 23	119 77	119 77
Metallurgical laboratory.....	100 00	.....	100 00	100 00
Physical laboratory.....	500 00	500 00	.....	.....
Architectural department.....	233 00	233 00	.....	.....
Total.....	\$17,000 00	\$15,956 08	\$1,043 92	\$1,043 92
<i>Year Ending June 30, 1893.</i>				
Salaries for instruction.....	\$13,000 00	\$12,639 72	\$360 28	\$360 28
Mining engineering.....	50 00	45 44	4 56	4 56
Agricultural lectures.....	250 00	47 05	202 95	202 95
Mechanical department.....	400 00	.....	400 00	400 00
Veterinary department.....	40 00	.....	40 00	40 00
Zoological department.....	400 00	.....	400 00	400 00
College of engineering.....	150 00	.....	150 00	150 00
Testing laboratory.....	40 00	21 13	18 87	18 87
Physics and electricity.....	800 00	313 85	486 15	486 15
Library.....	100 00	100 00	.....	.....
Unassigned.....	2,770 00	.....	2,770 00	.....
Total.....	\$18,000 00	\$15,167 19	\$4,832 81	\$2,062 81

Paper F is an estimate of current receipts and expenses for the three months ending June 1, 1893.

The board is requested to appropriate the amounts given in this list, also for the overdrafts in Paper A, as follows:

(1) Fuel and lights .....	\$474 89
(2) Architectural department.....	28 38
(3) Furniture and fixtures.....	1 77
(4) Heating apparatus.....	403 80

The first, third and fourth items were a necessity for the work of the University. The second was caused by a large amount of work done for World's Fair purposes, but which has not yet been paid for.

You are also requested to make the following assignments:

From state appropriations—	
Buildings and grounds .....	\$613 00
Apparatus and materials .....	237 29
Mechanical and architectural shops.....	713 79
Expenses of instruction .....	4,000 00
United States fund—	
Salaries for instruction .....	2,000 00

Your attention is also requested to the communication from the water company. The facts are as stated. (See board proceedings, 1888, page 51.) I did not feel authorized to pay the additional amount called for.

Respectfully submitted,

S. W. SHATTUCK,  
*Business Agent.*

The vouchers were referred to the committee on finance.

The matter of a contract for the water supply was referred to the business agent and the executive committee, with power to make a contract for water supply at not to exceed \$500 a year.

Appropriations for the next quarter, as asked by the business agent, were made:

Board expenses .....	\$500 00
Salaries for instruction .....	15,995 00
Salaries for services .....	1,865 00
Buildings and grounds .....	100 00
Fuel and lights .....	1,000 00
Stationery, printing, and catalogue.....	1,100 00
Laboratories .....	200 00
Library and apparatus .....	50 00
Incidentals .....	200 00
Mechanical department .....	100 00
Architectural department .....	100 00
Agricultural department .....	100 00
Horticultural department .....	50 00
Military .....	50 00
Gymnasium .....	50 00
University extension.....	75 00
Water supply .....	150 00
Furniture and fixtures.....	100 00
Military scholarship.....	60 00
Accredited schools and certificate.....	150 00
High school circular, balance .....	200 00
World's Fair collective exhibit, balance .....	100 00
Natural History Hall and moving, balance .....	466 60
Minnesota lands, balance .....	117 85
<i>Ullini</i> subscriptions .....	156 67
Art department .....	10 96
University bulletins and <i>Technograph</i> .....	200 00
Total .....	\$23,277 08

The following appropriations were made from current funds:

For fuel and lights .....	\$447 89
For architectural department.....	28 38
For furniture and fixtures.....	1 77
For heating apparatus .....	403 80

Assignments were made as follows:

From state appropriations—	
Buildings and grounds.....	\$615 00
Apparatus and materials.....	237 29
Mechanical and architectural shops.....	713 79
Expenses of instruction.....	4,000 00
From U. S. fund—	
Salaries for instruction .....	2,000 00

The business agent was asked to report to the board the amount of coal received under the contract with the Horns' Coalery Co.

Appropriations for the State Laboratory of Natural History were made as follows:

For field, office, and incidental expenses.....	\$375 00
For salaries and assistance.....	875 00
For publication of bulletins.....	125 00
For printing additional copies of Vol. 1, Natural History Survey of Illinois.....	600 00

MINNESOTA LANDS.

The committee on Minnesota lands reported as follows:

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

GENTLEMEN: Your committee on Minnesota lands reports the following sales completed since its report in September last:

No.	Date.	Name.	Description.	Acres.	Price.	Whole price.	Cash.
109	Sept. 1, 1892	Otto Munson....	NW. SE. 4-123-36.....	40	\$12 50	\$500 00	\$100 00
110	Sept. 10, 1892	J. E. Erickson ..	E. ½ SE. 25-124-36 lying northeast of railway.	76.13	12 50	951 63	151 63
111	Aug. 1, 1892	P. Norberg .....	N. ½ NE. 8-117-34 .....	80	16 60	1,280 00	80 00

The number of acres sold is small because the people in the vicinity of our lands had a poor wheat crop last year, and consequently are not ready to invest in land now. It is anticipated that a good wheat crop this year would be followed by a large demand for the land.

Respectfully submitted,

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

On motion of Mr. McLean the following resolution was adopted:

*Resolved*, That the treasurer of the board of trustees of the University of Illinois is hereby authorized to receive and receipt for all moneys, and to indorse all orders, drafts and checks due and payable to the said board of trustees, or to the said University of Illinois, and especially all drafts drawn by the Treasurer of the United States, payable to said board of trustees, or to said University of Illinois, on account of the Agricultural Experiment Station of the said University.

The president announced the committees as follows, Mr. Gore, at his own request, having been excused from committee service:

*Executive*—Graham, Morrison, Bullard.

*Farm*—Morrison, Raymond, McLean.

*Buildings and Grounds*—Bullard, Morgan, Morrison.

*Finance*—McLean, McKay, Armstrong.

*Instruction*—McKay, Raab, Armstrong.

*Publications*—Graham, Burrill, Pillsbury.

*Library*—Burrill, Raab, Morgan, Shattuck, Crawford.

The board then adjourned to meet at the University Parlor at 9 o'clock a. m. Wednesday.

### SESSION OF WEDNESDAY.

Mr. Bullard presented the following opinion by Judge Cunningham with regard to the occupancy of Green street, in front of the University, by the Electric Street Railway Company, and it was ordered that the opinion be printed as a part of the proceedings of the board:

URBANA, ILL., Oct. 12, 1892.

*Professor T. J. Burrill, Acting Regent University of Illinois,*

DEAR SIR: Yours of the 8th inst. detailing facts connected with the opening of Green street, in Urbana, through lands purchased by the University in 1867, and asking my opinion of the legal status of said street as between the University and the city of Urbana, I have received.

I do not think the open space in front of the University, now traveled as a street, across the land purchased in 1867, nor the 40 feet added to the width of Green street in front of the lots in Joseph Nelson's addition, are legal highways in the sense that streets through additions platted and recorded by individuals are streets. This raises the question of the power of the board of trustees to dedicate the lands of the University to any other public purpose than that for which they were purchased, of the power of a city to condemn a right of way across such lands, and of the liability of such lands to become public highways by prescription or user.

Although the organic act creating the board of trustees of the Illinois Industrial University denominates the board a corporation, with power to sue and be sued, and the title to this land is taken in its corporate name, the Supreme Court have said in the case of the *Board of Trustees vs. Champaign County*, 76 Ill., 187, that the lands of the University "belong to and are under the control of the State of Illinois." The same view is held in *Thomas vs. Board of Trustees*, 71 Ill., 310. This being the case, it follows as a necessary sequence that the board, without authority to do so, cannot donate the lands or dedicate them to any purpose not within the object for which the corporation was created. The corporation was created to care for and apply the property so owned by the State to its legitimate purposes, and not to give it away. I do not mean to say by this that the trustees were guilty of an improper act when they voted to open and widen Green street for the convenience of those who desire to visit the University, but that neither that act, nor the subsequent free use by the public of this part of the grounds, can be construed as a dedication of this strip of land as a street of the city of Urbana. Nor can lapse of time and user be construed to establish, as against the State, a prescriptive right to use this land as a street, for it is the general rule, founded on obvious grounds of public policy, that no title can be gained by adverse possession against the State. *Cary vs. Whitney*, 48 Maine, 516. I do not know that any attempt has ever been made by the city to condemn this land as a street, but I think such an attempt would be as fruitless as would be an attempt on the part of the city of Springfield to condemn a part of the State house grounds for a street.

The opening of a private way across the grounds of an individual and its user by the public for any length of time has been held not to operate as a dedication unless attended by circumstances showing a plain intention on the part of the owners to dedicate it. This would apply with much greater force to the lands of the State, under the principles enunciated above. I therefore answer that under no circumstances can the public acquire rights to the private way leading from University Hall to the Military Hall. In the case of *Thomas vs. The Trustees*, 71 Ill. 310, above cited, the court also held that the property of the University was exempt from liability under the lien laws of the State, because the organic act forbids the board of trustees from binding the

State for the payment of any sum beyond the amount appropriated. This being so, and the trustees being incapable of binding the State by express contract, much less can the board bind the State by its laches in failing to make a safe bridge. No right of action exists in favor of a trespasser who, while trespassing on private grounds, is injured, though the owner be guilty of ever so much negligence. I see no use in putting up a sign "Private Way," unless it be intended as a gentle invitation to people to keep out.

Yours, etc.,

Yours, etc.,

J. O. CUNNINGHAM.

The committee on finance made the following report, which was approved:

URBANA, ILL., March 15, 1893.

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

GENTLEMEN: Your finance committee reports that it has examined the vouchers of the Experiment Station, No. 1 to 129, inclusive, for the half year ending December 31, 1892, and has found the same correct and properly receipted.

The committee recommends that the vouchers be duly filed in the office of the secretary of the Experiment Station.

Respectfully submitted,

ALEXANDER McLEAN, } Committee on Finance.  
F. M. McKAY, }

It was voted, on motion of Mr. McKay, that the president should appoint four others, who, with himself, should constitute a committee on legislation.

The president appointed Mr. Bullard, to be chairman, and Messrs. Morrison, McKay and McLean.

The committee on buildings and grounds made the following report, which was approved:

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

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

The heating apparatus for Natural History Hall has been completed and accepted, and the balance on the contract paid with the exception of \$200, which was withheld as a forfeit for not completing the contract on time.

The apparatus is reported by the architect as exceptionally good and satisfactory, and your committee is gratified that the work has been done so well.

The necessary gas fixtures have been purchased and put in place. The work has been satisfactorily done within the appropriation.

Respectfully submitted,

S. A. BULLARD, } *Committee*  
ALEXANDER MCLEAN, } *on*  
NELSON W. GRAHAM, } *Buildings and Grounds.*

The board then took a recess to attend chapel exercises.

After re-convening, on motion of Mr. McKay, the matter of furnishing information to the newspapers was discussed, and the regent was directed to request the faculty committee on publication to give this subject careful attention, as the board deemed it of great importance.

The farm committee reported that, after due consideration, its judgment was that it would be unwise to grant the request of the Urbana and Champaign Electric Street Railway Co.

On motion of Mr. McKay, the report was adopted, and the secretary was directed to notify Mr. Harris of the action of the board.

The committee on regency reported progress and asked for further time. The request was granted. Mr. Bullard was added to this committee.

On motion of Mr. Raab, it was voted that so much of page 148 of the last catalogue as comes under the head of "Required Studies" should be omitted from the catalogue this year.

The finance committee presented the following report, which was approved:

URBANA, ILL., March 15, 1893.

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

GENTLEMEN:—Your finance committee has examined the report of the treasurer, J. W. Bunn, for the last quarter, showing balance and receipts amounting to \$64,315.41; expenditures amounting to \$34,189.92, and a balance on hand March 14, 1893, of \$30,125.49, and has found the report correct.

It has also examined the vouchers submitted by the business agent for the quarter ending August 31, 1892, No. 1076 to 1375, inclusive; and for the quarter ending November 30, 1892, No. 1 to 300, inclusive, and has found the same correct and properly received.

Respectfully submitted,

ALEXANDER MCLEAN, { *Finance Committee.*  
F. M. MCKAY, }

The paragraph with regard to special military scholarships, beginning on page 10 of "Rules for the Government of Students," was amended, the last clause to read "its value to be payable at the close of the year of service.

On motion of Mr. Bullard, Professor Baker was requested to prepare a plat of the farms and University grounds showing buildings, etc., at a cost of not to exceed \$25, this sum being appropriated from current funds.

The request of the band for the use of Military Hall was referred to the faculty.

On motion of Mr. Raab, it was voted that the board go into executive session.

On motion of Mr. Bullard, it was voted that the expense incurred by the members-elect of the board in attending the meeting of February 1st at Springfield, and the meeting of the committee on legislation at a later date, should be paid, and a sum sufficient to meet these expenses was appropriated from current funds.

The committee to prepare a resolution with regard to Mr. Emory Cobb reported as follows and the report was adopted:

Mr. Emory Cobb, who now retires from the board of trustees of the University of Illinois, has been a member of this body since its first organization March 11, 1867. He was appointed to this position by Governor Oglesby, who made him chairman of the finance committee. This position he held until the reorganization of the board by the legislature in 1873. He was then chosen president of the board, and for more than ten years held that important position, being at the same time *ex-officio* chairman of the executive committee. In 1883 he resigned his position as president of the board, but still retained his membership while traveling abroad. In 1886 he was again made a member of the executive committee, and has continued on that committee to the present date.

His gift of the "Ward Collection of Casts," the largest donation ever made to the University, was really the beginning of our University Museum. Throughout his connection with the University—now over 26 years—Mr. Cobb has shown himself to be one of its truest friends. Being a successful business man, Mr. Cobb has brought to the institution the benefit of his years of business training. In the investment of endow-

ment funds, the placing of securities, and in every financial transaction, Mr. Cobb has rendered invaluable service. He has taken great interest in the scientific investigations conducted by the University, especially those which related to the practical life upon the farm. During the early history of the University, when friends were few and obstacles numerous, Mr. Cobb showed himself the champion of liberal education for the sons and daughters of the industrial classes, as well as for those of wealth and ease.

And, finally, Mr. Cobb has always striven to be the harmonizer between warring factions, the peace-maker between contending parties. He has been the advocate of a conservative, equitable government, willing to sacrifice his personal interests for the good of the University.

In view of the exceedingly valuable service which he has rendered to the State of Illinois, to the cause of education, and particularly to our University, be it

*Resolved*, That we, the trustees of the University of Illinois, hereby tender him our heartfelt gratitude for his excellent service as a member of this board, and for the noble example of self-denial and earnest effort for the welfare of the University; and be it further

*Resolved*, That this testimonial letter and resolutions be spread upon the records, and that a copy thereof, suitably engrossed, be presented to Mr. Cobb.

JAMES E. ARMSTRONG, }  
ALEXANDER McLEAN, } *Committee.*  
SAMUEL A. BULLARD, }

On motion of Mr. McLean, the board adjourned to meet at 10 o'clock a. m., Tuesday, March 28th, in the office of the Superintendent of Public Instruction, Springfield, Ill.

W. L. PILLSBURY,  
*Secretary.*

N. W. GRAHAM,  
*President.*

### ADJOURNED SESSION, TUESDAY AND WEDNESDAY, MARCH 28 AND 29, 1893.

The Board of Trustees of the University of Illinois was called to order in the office of the Superintendent of Public Instruction, in Springfield, Ill., at 10 o'clock a. m., Tuesday, March 28, 1893.

There were present Messrs. Armstrong, Graham, Gore, McKay, McLean, Morrison, and Raab. Mr. Bullard came in later. The absent were Governor Altgeld, and Messrs. Bryant, Morgan, and Raymond.

The board adjourned to 1:30 p. m., and upon convening pursuant to adjournment, adjourned to 5 o'clock p. m.

At the evening session Governor Altgeld was present in addition to those present in the morning.

The committee on instruction reported, recommending that Professor Baldwin's resignation be accepted, and that, for the present, the course in mining engineering be discontinued. On motion of Mr. Morrison, the recommendation of the committee was adopted.

Mr. McLean offered the following resolution, which was adopted:

*Resolved*, That the secretary of the board is hereby directed to procure a suitable, well bound book to be entitled "Endowment Fund Register," and to keep therein a complete record of each bond belonging to the University of Illinois, showing by whom issued, date, amount, maturity, interest and when it is payable, of whom bought, and cost; also payment thereon, both of principle and interest.

The treasurer of this board is also directed to report to the secretary payments of interest and principal of the endowment fund and investments on account of same.

A communication from the mechanical engineers of the freshman class, asking for increased accommodations in the shops next year, was received and held for further consideration.

The Board adjourned to meet at 9:30 o'clock, Wednesday morning.

### WEDNESDAY.

When the Board met Wednesday morning, the same members were present as the evening before.

Mr. McLean offered the following resolution, and it was adopted:

WHEREAS, The governor, in a message to the legislature, has recommended that the State Geological Department be placed in charge of the University of Illinois, and that the several large and valuable collections of geological, horticultural, ornithological, pomological, and other specimens be given in charge of the University, and

WHEREAS, The location of the State Geological Department at the University would, in a great measure, facilitate the instruction given to the students in that branch, and

WHEREAS, The possession of all the specimens referred to would be of great service to the students pursuing studies and investigations in this field. Now, therefore, be it

*Resolved*, That it is the sense of this board that the recommendation of the governor should be acted upon; that this board heartily favors the contemplated transfers and is ready and willing to receive everything pertaining to said State Geological Department, and also all other specimens of whatever kind now located at the State Capitol; and that necessary arrangements for the proper exhibition of such specimens, either by the erection of new buildings or the setting apart of parts of buildings already erected, be made. It is further

*Resolved*, That members of this board recommend to the members of the legislature representing their respective districts that they assist in the furtherance of the ends thus indicated.

After discussion it was decided that the committee on legislation should be directed to say, in presenting the needs of the University to legislative committees, that, while it was exceedingly desirable to have all three buildings asked for, the engineering hall was the one most needed.

One hundred dollars was appropriated from current funds for music this term.

Dr. Burrill's bill for traveling expenses, amounting to \$19.18, was ordered paid from current funds.

The Board then adjourned to 4:30 o'clock p. m., and upon coming together pursuant to adjournment, adjourned to meet at 7:30 o'clock p. m., at the Leland Hotel, in Springfield, Ill.

### EVENING SESSION.

At the evening session, held in room No. 42, at the Leland Hotel, the resolution in regard to transferring the State Geological Museum to the University was referred to a committee consisting of Messrs. Bullard, Raab, and Gore, who should do whatever they found practicable to secure legislation to effect such transfer.

The finance committee made the following report, which was approved:

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

GENTLEMEN: Your finance committee begs leave to report that it has examined all the bonds of the endowment fund of the University in the hands of the treasurer, John W. Bunn, and finds them to be as follows:



## LIST OF BONDS.

Champaign County.....	4½ per cent.....	\$60,000	
Pike County.....	7 ".....	39,000	
Morgan County.....	4 ".....	35,000	
Kankakee.....	5 ".....	30,000	
Jasper County.....	5 ".....	15,000	
Logan County.....	5 ".....	15,000	
Macoupin.....	6 ".....	10,300	
Gallatin County.....	6 ".....	10,000	
Douglas County.....	6 ".....	10,000	
Crawford County.....	6 ".....	10,000	
Sangamon.....	4 ".....	5,000	
Champaign.....	4½ ".....	20,400	
Taylorville.....	6 ".....	20,900	
Cass County.....	5 ".....	13,600	
Pittsfield.....	6 ".....	10,500	
Montgomery County.....	6 ".....	10,000	
Urbana.....	5½ ".....	10,000	
Sangamon County.....	5 ".....	10,000	
Morgan County.....	6 ".....	10,000	
Litchfield.....	5½ ".....	8,000	
Champaign.....	5 ".....	7,850	
Homer.....	5 ".....	7,500	
Shelby County.....	6 ".....	6,000	
Sangamon County.....	5 ".....	6,000	
Mattoon.....	5 ".....	6,000	
Montgomery County.....	6½ ".....	3,000	
Bond County.....	6 ".....	2,500	
Montgomery County.....	6 ".....	1,500	
Sangamon County.....	7 ".....	600	
Sangamon County.....	6 ".....	500	
Christian County.....	6 ".....	1,000	\$393,250

We also find that a large proportion of said bonds are liable, under the terms of their issue, to be called in and paid at any time.

We, therefore, recommend that the treasurer at once notify the committee when such bonds are called in by the proper authorities, so that the proceeds can be re-invested at the earliest practicable moment.

Respectfully submitted,

ALEXANDER MCLEAN, }  
JAMES E. ARMSTRONG, } *Finance Committee.*

The Board then adjourned to 2 o'clock p. m., Tuesday, June 6, 1893.

W. L. PILLSBURY,  
*Secretary.*

NELSON W. GRAHAM,  
*President.*

## ADJOURNED SESSION, TUESDAY JUNE 6, 1893.

The Board of Trustees of the University of Illinois met in the University parlor, in Urbana, Ill., at 2 o'clock p. m., June 6, 1893. There were present Messrs. Armstrong, Bryant, Bullard, Graham, McLean, Morgan, and Raymond; absent, Governor Altgeld and Messrs. McKay, Gore, and Raab.

The president announced that he had, subsequent to the last meeting, added Mr. Bryant to the farm committee, and to the committee on instruction, and he asked that the minutes of the meeting of March 14, be changed so as to show this.

It was also ordered that the words "off a part of" be stricken out from the third line from the bottom of page 9 of the minutes as printed.

These changes having been made, the minutes were approved.

The board adjourned.

W. L. PILLSBURY,  
*Secretary.*

N. W. GRAHAM,  
*President.*

## MEETING OF JUNE 6, 1893.

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The Board of Trustees of the University of Illinois met in the University parlor, in Urbana, Ill., at 3:30 o'clock p. m., June 6, 1893. There were present Messrs. Armstrong, Bryant, Bullard, Graham, McLean, Morgan, and Raymond; absent, Governor Altgeld and Messrs. McKay, Gore, and Raab.

The regent's report was then presented.

### REGENT'S REPORT.

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

GENTLEMEN: The twenty-sixth year in the history of the University is now near its close, and according to law and the duty imposed upon me, I report to you concerning the progress made and indicate the needs for future continuance and advancement.

### DEGREES.

By vote of the faculty you are asked to give authority to confer degrees as follows:

COLLEGE OF AGRICULTURE. Degree of Bachelor of Science.

Wilber John Fraser,

William David Gibbs.

COLLEGE OF ENGINEERING. Degree of Bachelor of Science.

#### *Course of Mechanical Engineering.*

James W Cook,

William Henry Cornell,

George Washington Seaman,

Bernard Victor Swenson.

#### *Course of Electrical Engineering.*

George Webster Blakesley,

Bernard Victor Swenson,  
Thomas Tyson Woodruff.

#### *Course of Civil Engineering.*

Harlow Bacon,

Edward Ernest Barrett,

Henry Emmett Bartlett,

Willis Wilson Danley,

Mark Alden Earl,

Arthur Bates Loomis,

Clyde Benjamin McClure,

William David Pence, Class of 1886,

Fred Milton Spalding,

John Truesdale Stewart,

Almon Daniel Thompson,

William Townsend,

Robert Clarke Vial.

*Course of Architecture.*

George Philip Behrensmeyer,	James David Phillips,
Frank Manear Brown,	Alfred Wilemin Rea,
Albert Grant Higgins,	Donald Gamaliel Scott,
Alexander Levy,	Shigetsura Shiga,
Adolph Bertinus Peterson,	Severin Canute Skielvig.

COLLEGE OF SCIENCE. Degree of Bachelor of Science.

*School of Chemistry.*

Robert Franklin Carr,	William Priestly McCartney,
Fred Goldsmith Coffeen,	James David Metcalf,
Fred Augustus Hall,	Clendon VanMeter Millar,
Edward Everett Hunt,	Will Ambrose Powers.

*School of Natural Science.*

Hubert Franklin Andrews,	Walter Scott McGee,
Oscar Paul Chester,	Louis McMains,
Philip Matthias Hucke,	Jeremiah George Mosier,
	Richard W. Sharpe.

COLLEGE OF LITERATURE. Degree of Bachelor of Arts.

Mary Edna Arnold,	William Briggs Rowe,
	Charles Wesley Russell.

COLLEGE OF LITERATURE. Degree of Bachelor of Literature.

George John Arbeiter,	Frank M Gullick,
Grace Ayers,	Agnes Gale Hill, A. B., Class of 1892.
Harvey Irving Carpenter,	Harriette Augusta Johnson,
Charles Willard Carter,	Louis Klingel,
William Rock Chambers,	Nina Belle Lamkin.
Edward Everett Cole, Class of 1882.	Robert Emmett McCloy,
Edward Chilton Craig,	Mary Estelle Mann,
Louis Thompson Graham,	Loueva May Mathews.
William Johnson Graham,	Sophia Mary Peterson,
	Orres Ephraim Young.

The following named graduates of former classes have been recommended for the second degree designated:

Francis John Tresise, B.S., class of 1890, Degree of Civil Engineer.  
 Alice May Barber, B.S., class of 1892, Degree of Master of Science.  
 Lewis S. Daugherty, B.S., class of 1889, Degree of Master of Science.  
 Jessie Ellars, A.B., class of 1890, Degree of Master of Arts.  
 Cleaves Bennett, B.L., class of 1889, Degree of Master of Literature.  
 Oliver S. Moles, B.L., class of 1889, Degree of Master of Literature.  
 Z. Lincoln Whitmire, B.L., class of 1886, Degree of Master of Literature.

Degrees recommended for those graduating ten years or more ago with certificates:

Miles F. Hatch, class of 1872, Degree of Master of Science.  
 Thomas E. Rickard, class of 1872, Degree of Master of Literature.  
 Harvey C. Estep, class of 1874, Degree of Civil Engineer.  
 John P. Campbell, class of 1874, Degree of Master of Literature.  
 Walter E. Knibloe, class of 1876, Degree of Master of Literature.  
 Weston H. Mahan, class of 1876, Degree of Master of Literature.  
 Charles P. Graham, class of 1873, Degree of Master of Literature.  
 Franklin C. Platt, class of 1873, Degree of Master of Literature.  
 Elna A. Robinson, class of 1875, Degree of Mechanical Engineer.  
 Mrs. Amanda Campbell Moore, class of 1875, Degree of Master of Literature.

The faculty further recommends that Henry P. T. Little be given the Degree of Bachelor of Science.

Edward Chilton Craig, Mark Alden Earl, William Johnson Graham, Fred Milton Spalding, and John Truesdale Stewart have been recommended by the faculty to the governor of the State and have been honored by him with commissions by brevet as captains in the Illinois National Guard.

ENROLLMENT.

At this time last year there was reported to you a total enrollment of pupils of 583, which was an advance of 64 over the preceding year, and which was then stated to be the greatest annual growth in the history of the institution. The enrollment now reaches 714, or 131 more than that of last year. This is phenomenal for us. It has been a healthy development of the work already in hand without the attraction of anything really new, except the short winter course in agriculture, in which there were 29 students. No other state university or other prominent collegiate institution of several years' standing in the country, so far as my information goes, has made so large gains in per cent. of attendance, though it is true that the general increase of students has been very remarkable in many, especially in western universities.

The greatest gain here has been in the college of engineering, especially in the course of electrical engineering, in which the advance over last year is 178 per cent. The increase of architectural students, including the architectural engineers, is 24 per cent.; of students in chemistry, 12 per cent.; in natural history, 28 per cent.; in Latin and Greek, together, 71 per cent. In the last there were 21 enrolled last year; 36 this year.

For further comparison I submit the following tables, summaries for the last two years:

SUMMARY, 1891-92.

COURSES AND CLASSES.	*Graduate school.....	Resident graduates.....	Senior.....	Junior.....	Sophomore.....	Freshman.....	Preparatory.....	Special.....	TOTAL.		Total.....
									Men.....	Women.....	
Agriculture, men.....				1	2	1	6	1	11		11
Mechanical engineering, men.....		1	5	3	18	35	29		91		91
Electrical engineering, men.....				5	2	12	14		33		33
Civil engineering, men.....		1	12	13	21	30	12		89		89
Mining engineering, men.....					2	3	1		6		6
Architecture { Men.....			9	13	12	29	20	8	91		91
{ Women.....										1	1
Chemistry { Men.....		1	2	3	13	15	8	2	44		48
{ Women.....					1	3				4	4
Natural science { Men.....			4	3	10	14	11		42		56
{ Women.....		1	1	1		9	1	1	14		19
Art and design { Men.....		1							1		1
{ Women.....							2	7		9	9
Music, women.....							1	2		3	3
English and modern language { Men.....		1	7	7	9	11	23		58		104
{ Women.....		2	3	6	6	11	16	3		47	47
Latin { Men.....					1		2		3		4
{ Women.....						1				1	1
Classic { Men.....			2	2	1	5	2		12		17
{ Women.....			1		1	3				5	5
Not specified { Men.....					2	2	9		13		18
{ Women.....							5			5	5
Total { Men.....		5	41	50	93	157	137	11	494		883
{ Women.....		3	5	7	8	27	26	13		89	89
Total.....		8	46	57	101	184	163	24			583

\*Not established till 1892.

## SUMMARY, 1892-93.

COURSES AND CLASSES.	Graduate school.	Resident graduates.	Senior.	Junior.	Sophomore.	Freshmen.	Preparatory.	Special.	TOTAL.		Total.
									Women.	Men.	
Agriculture, men.	...	...	...	2	1	...	4	5	29	41	41
Mechanical engineering, men.	...	1	3	3	18	28	26	26	79	79	79
Electrical engineering, men.	...	...	4	11	7	35	36	1	94	94	94
Civil engineering, men.	...	1	12	15	20	27	17	...	92	92	92
Mining engineering, men.	...	...	...	2	1	3	1	...	7	7	7
Municipal engineering, men.	...	...	...	...	...	...	...	...	1	1	1
Architecture. } Men	...	1	10	16	17	27	23	3	97	...	...
Architecture. } Women	...	...	...	...	...	1	1	...	2	...	99
Architectural engineering, men.	...	...	...	6	4	4	1	15	...	15	15
Chemistry. } Men	...	1	9	6	14	10	10	3	52	...	...
Chemistry. } Women	...	...	...	...	...	1	1	...	2	...	54
Natural history. } Men	1	...	7	8	8	13	12	...	49	...	...
Natural history. } Women	1	1	2	7	6	6	6	2	23	...	72
Art and design. } Men	...	...	...	...	...	...	...	...	2	...	...
Art and design. } Women	...	...	...	...	...	...	...	...	8	...	10
Music, women.	...	...	...	...	...	...	...	...	3	...	3
English and modern languages. } Men	1	...	10	6	7	9	22	...	54	...	...
English and modern languages. } Women	...	...	6	3	4	18	16	5	52	...	106
Latin. } Men	...	...	1	3	2	1	1	...	8	...	...
Latin. } Women	...	...	...	...	...	...	...	...	5	...	13
Classical. } Men	1	...	2	1	1	4	6	...	15	...	...
Classical. } Women	...	...	1	1	1	2	3	...	8	...	23
Not specified. } Men	...	...	...	...	...	...	...	1	4	...	...
Not specified. } Women	...	...	...	...	...	...	...	3	1	...	5
Total } Men	2	4	67	72	100	166	166	40	610	...	...
Total } Women	2	1	7	8	13	28	30	15	104	...	...
Total.	4	5	67	80	113	194	196	55	...	...	714

## CLASSIFICATION OF INSTRUCTORS AND SALARIES.

It is recognized that you appreciate the fact that the most important, as well as the most difficult and delicate duty devolving upon the board of trustees, is the proper selection and assignment of instructors. The university succeeds or fails according as the instruction provided is good or poor; it can best succeed only when the professors are the best obtainable and have the hearty encouragement of the board of control. Your action of last year in changing the term of service is believed to have had a very salutary effect, and if the present rule becomes fixed by long continuance still greater benefits may be anticipated from it. The exceedingly great importance of anything that tends to inspire professors and instructors with a feeling of just appreciation, of due recognition of value of service rendered, and of stability of office, causes me to venture some suggestions as the basis of possible rules concerning the employment and salaries. It is believed that some rules may be adopted by you in this matter which will aid in your deliberations and which will make the onward progress of the University more surely upward progress. I understand it is a general impression among you that the salaries now paid are too low; they are certainly lower than those of most similar universities in our region of country. I respectfully offer the following outline of classification and salaries:

1. The titles of teachers to be in order as follows: Professors, associate professors, assistant professors, instructors and assistants.

□2. The full salary for these to be respectively: \$2,500, \$2,000, \$1,600, \$1,200 and \$1,000.

3. That professors, associate professors, and assistant professors be first engaged for one year, and, if at the close of this year the facts warrant

it, that they be permanently engaged during the pleasure of the trustees; that instructors and assistants be engaged each year for ten months.

4. That the salary of a newly appointed professor be \$1,800 to increase \$100 each year to maximum stated; for an associate professor, \$1,500 first year, to increase \$50 annually to maximum; for an assistant professor, first year, \$1,200, to increase \$50 annually to limit; for instructor, \$100 per month, first year, to increase annually \$5 per month to limit; and for assistant, \$60 to \$75 per month first year, to increase annually \$5 per month.

Any such scheme would have to be elastic in application, but, if adopted as the basis of usual action, any deviation would carry with it the cause. In any event, the increase provided should take effect for satisfactory service only. Should employment be continued without the stated increase, it would indicate want of such service; should greater increase be made, especial commendation would be signaled. Transfer from one grade to a higher would also indicate merit.

This applies to future employments. Adjustments for present employes can hardly be made by rule, but reference to such rules might aid in equitably fixing salaries and titles. If desired, I shall be glad to render any possible assistance in this, whether by rule or otherwise.

As bearing somewhat on the same idea, I mention for your consideration the leasing of building lots to professors at a nominal rate and under conditions to be formulated hereafter. Upon such leased lots residences might be built by those to whom leases are made, under regulations including minimum and maximum cost, manner of keeping and method of disposal in case of need. This has been discussed in a tentative way, and several professors have expressed much interest in the suggestion. There is certainly a growing desire on the part of members of the faculty to live in the neighborhood of the University, as well as a manifest tendency on the part of citizens, to secure residences out this way. Professors hesitate to invest in houses in which to live, because of the difficulty in disposing of them in case they leave the service of the University. A reasonable stability in tenure of office and some provision on the part of the University to accept the buildings, at a valuation to be ascertained according to a prescribed method, would remove most of the difficulty, and would certainly add to the desirableness of living here, and, it seems to me, would certainly add to the welfare and advancement of the University. Cornell University has long tried this plan with most excellent results. In connection with a sketch showing suggestions for the location of future public buildings, I have indicated a plat of such building lots.

#### WORLD'S COLUMBIAN EXPOSITION.

The exhibit for the World's Columbian Exposition was for the most part in a fair state of completion upon the opening day, May 1st, or at least it was, in comparison with other exhibits, well along at the time. Though still incomplete, it is in general a very creditable and representative showing of the resources and appliances of the University. No one can estimate the amount of thought and labor it has cost. This labor, under many disadvantages and difficulties, has been a great burden upon men already overloaded with duties which could not be neglected. If one suitable man could have given his whole mind and energies to the matter, no doubt much improvement might have been made over the showing as it is. For the departments in which the exhibit is now most incomplete, there are valid excuses to offer, though no excuses can make amends for the detrimental effect of delay. In addition to the very large amount of extra labor upon the part of the members of the faculty in preparing the exhibit, for which not a dollar has been paid or is asked, it is arranged that the general superintendence of it during the summer shall be under the same unpaid agents. The Illinois Board of World's Fair Commissioners pays the ordinary expenses of one

member of the faculty continuously for this purpose, and assignments to this duty are made here from volunteers, each to serve about half a month. This again is understood to mean attention to business. No one accepts the place with an idea that it will give him a chance to see the general Exposition.

The chairman of the faculty committee on the Exposition submits the following communication:

UNIVERSITY OF ILLINOIS, June 5, 1893.

*Dr. T. J. Burrill, Acting Regent,*

DEAR SIR: At your request I have the honor to present the following statement as chairman of the committee of the faculty on the University exhibit at the World's Columbian Exposition:

This exhibit was mainly in place when the Exposition was formally opened May 1st. Most that remained to do was done in the next few days. There are still some departments of the exhibit in which some things are not installed, partly because of the pressure of work upon those in charge, partly because some articles could not be forwarded until the close of the term, and partly because of delay in decision of some questions by the state commission. The exhibit, however, is much more nearly complete than are many of the exhibits by educational institutions in the department of Liberal Arts.

As it was thought best that I should be in charge of the exhibit during most of the month of May, I am able to speak with some positiveness concerning it, and have no hesitation in saying that it will be of vast value to the University. It is not only much larger than the showing made by any other university, but is more varied and complete, more fully showing the facilities and methods of work in all its departments. It is evident that it will be seen by very many more people than will visit the exhibits in the galleries containing the educational exhibits in general in the Liberal Arts department. Especially will the people of our own State see it. The interest taken in it is very gratifying. Multitudes fail to give it any careful study, but many persons manifest their surprise and gratification at its extent and interest. Many thousands of the citizens of Illinois will here get their first impressions concerning the methods and requirements of and for modern high class and technical education. Already many from other portions of this country and from foreign lands have given the exhibit appreciative observation. The fact that the University exhibit proper is placed alongside those by the State Laboratory of Natural History and the State entomologist is fortunate for all interests.

The plans agreed upon by the commission provide for the constant attendance of one member of the faculty of the University, whose expenses are to be paid, and of either two or three students or instructors, who are to be paid \$75 a month.

A serious question is the danger of injury to or loss of articles exhibited. Already several articles have been stolen. Some things are necessarily exposed. In some cases the protection can only be slight. It will be practically impossible so to guard the exhibit as to prevent possible danger of theft. With the condition of the funds at the disposal of the commission it is hardly probable it would assume the liability.

During my stay at the Exposition I was increasingly impressed with the fact that its close will give us a great opportunity for making collections of great value to us. In some cases the collections can be secured by exchange; in many cases, I believe, articles of much interest would be given us, especially by representatives of foreign exhibits or those from distant states. I suggest the importance of the preparation of a plan for systematic work in this direction.

In most respects our relations with the commission have been pleasant and satisfactory. In regard to a few questions we feel that decisions have been made which were incorrect and unjust. I take pleasure in

expressing, what I believe we all feel, our indebtedness to Mr. E. E. Chester, of the commission, who, as chairman of the committee on educational exhibits, has ever manifested a deep and intelligent interest in the exhibit by the University and has done much to help the committee of the faculty in its work.

Respectfully submitted,

G. E. MORROW.

There are, as usual at this time of year, a large number of things requiring your attention. Members of the faculty can look after numerous matters much better than while the affairs of the terms consume their time and energies; while the passage of the legislative bills makes it possible for you to meet some requests not heretofore feasible. The requests from the various departments for appropriations of money are summarized in the subjoined list. Full information is contained in the communications themselves, or will be presented as required:

#### REQUESTS FOR APPROPRIATIONS.

College of engineering—	
Instruments.....	\$216 50
Architecture—	
Architectural cabinet.....	175 00
Apparatus (list furnished).....	64 00
	<hr/>
	\$239 00
Civil engineering—	
Re-establishing surveying spiral.....	\$50 00
Repair of instruments.....	55 00
New instruments.....	50 00
Cement laboratory equipment.....	90 00
	<hr/>
	\$245 00
Mechanical engineering—	
Engine for valve setting.....	\$1,500 00
Dynamometers.....	1,500 00
Lubricant testing machines.....	1,000 00
Apparatus for gas and fuel analysis.....	500 00
Models, etc., for drafting room.....	900 00
Forges and tools.....	4,500 00
Thesis apparatus (overdraft).....	100 00
	<hr/>
	\$10,000 00
Municipal engineering—	
Photographs and structures in water works and sewerage.....	\$50 00
Testing laboratory—	
Apparatus and instruments (list furnished).....	\$1,790 00
Chemistry—	
Platinum ware.....	\$500 00
Extraction apparatus for grain, milk, etc.....	75 00
Apparatus for nitrogen determinations.....	25 00
Water blast with setting.....	50 00
Spectroscope.....	90 00
Barometer.....	50 00
Polariscope.....	175 00
Scales and weights.....	125 00
Muffle furnaces.....	140 00
Supplies from department funds.....	500 00
	<hr/>
	\$1,730 00



Geology—	
Furniture (list furnished).....	\$897 00
Apparatus and materials (list furnished).....	686 00
	<hr/>
	\$1,583 00
Botany—	
Microscope and accessories.....	\$200 00
College of literature—	
Lectures.....	\$600 00
Room fittings.....	250 00
	<hr/>
	\$850 00
Department of Greek—	
Apparatus.....	\$150 00
Library—	
Binding books.....	\$175 00
Art and design—	
Collections for museums of industrial art.....	\$500 00
Teacher's desk.....	23 00
Small utensils and repairs.....	30 00
Easels for students' use.....	35 00
Sink.....	15 00
Attention to room.....	
Cement walks.....	1,260 00
Cleaning buildings.....	300 00
Care of ground.....	150 00
T. J. Burrill, expenses.....	10 85
Architectural shop, band saw.....	200 00

From the department of chemistry a plan is suggested for better store-room facilities. The proposition merits careful consideration, and, if the business is sufficient for the division of labor proposed, it seems to me both economy and efficiency would commend making the new store-room as suggested. Attention should also be called to the better ventilation of the chemical laboratory, to which attention has heretofore been called. The heating apparatus in this building also requires overhauling during the summer.

The faculty of the college of engineering presents through its dean a communication, herewith submitted, concerning the needs of the college in the way of increased instruction, and separate papers by members of the same faculty bearing upon the same subjects, accompany the statement by the dean.

It has seemed desirable to reorganize somewhat the work in the school of natural science. This is in part made necessary by the withdrawal of Professor Baldwin, who taught the subject of mineralogy. In the proposed changes this subject is transferred to Professor Rolfe's department, where, in connection with geology, it properly belongs. Physiology, on the other hand, is closely related to zoology, and when taught by laboratory methods, as it should be in the University, requires very largely the same equipments. In this connection I submit a paper by Professor Forbes.

The dean of the college of literature presents a request for provision for another course of lectures, and a petition comes from students of the college of science, asking for a course from eminent specialists in science. While a formal asking has not been made by the college of engineering, the experience of the past makes it appear very desirable that renewed provisions should be made for them.

Communications addressed to myself from the junior and sophomore students in mechanical and electrical engineering are herewith submitted.

I communicate herewith a paper from Assistant Professor Merrill upon a matter of interest to young women and commend the subject to your attentive consideration.

The faculties of the various colleges at my request considered the appointment of one fellow for next year for each college. Thirteen applications have been received this year for fellowships upon the plan adopted by you last year, and upon which two were last year appointed. The special faculties reported to the general faculty and now the latter body recommends the following named persons for these fellowships, all from the present graduating class:

For the college of agriculture, Wm. D. Gibbs.

For the college of engineering, James D. Phillips.

For the college of science, C. V. Millar.

For the college of literature, C. W. Carter.

The report of Professor Morrow upon the farm is herewith communicated to you.

UNIVERSITY OF ILLINOIS, June 5, 1893.

*Dr. T. J. Burrill, Acting Regent:*

DEAR SIR: I respectfully report farm transactions for the three months ending June 1st, as follows:

Receipts ..	\$1,765 02
Expenses.....	417 13
Balance to credit of farms.....	\$1,347 79

The receipts may be classified thus: horses and colts, \$510; cattle, \$471.15; hogs, \$299.67; hay, \$311.52; milk, \$88.25; corn, \$62.37; miscellaneous, \$22.06.

In accordance with the action of the board of trustees at its March meeting about 200 acres of the stock farm has been rented for corn.

The date at which this plan was decided on was late for arrangement for this year. As there was no suitable house on the farm, it was practically impossible to arrange for renting the farm as a whole. No desirable men were found wishing to pay cash rent. About 120 acres were rented to neighbors, well known, at the customary grain rent of two-fifths of the crop delivered in the crib. About 80 acres were rented for one-half the crop so delivered, the University to furnish use of a plow, cultivator, wagon for husking, and one team; the renter to furnish all manual labor. As the farm had the machinery on hand and it seemed best to keep three mares then in foal, this arrangement was adopted. Should the crop be a full average one, the returns will be larger than from cash rental.

Forty acres of pasture land it was thought had been rented to one man, who finally decided not to take it. It is believed that nearly or quite as much rental can be secured by taking horses to pasture, though this plan will involve some additional trouble. Eighty acres of meadow are yet to be disposed of. Several men have made application for parts of it. It can, probably, be rented to one man; or, if desired, the hay can be secured by the farm force. It is believed that this will give somewhat larger returns than to rent.

Looking to future renting of the farm it was thought advisable to have a larger acreage plowed this year.

Additional cattle will be sold during the season. There is a demand for fresh cows and cattle for beef, but none for breeding animals. While in good condition, most of the cattle were not in the best condition for sale as beef. It is believed the gain made on grass will more than repay the cost of keeping. It is expected to make additional sales of horses. Perhaps 2,500 bushels of corn can be sold.

A statement of the stock and machinery on the farms accompanies this.

The late date of this report and some lack of detail are explained by my absence in connection with the University exhibit at the World's Fair during much of May.

Respectfully submitted,

G. E. MORROW.

The board of direction of the Experiment Station has held its regular quarterly meeting, and I transmit its report.

*Dr. T. J. Burrill, Regent,*

DEAR SIR: The Board of Direction of the Agricultural Experiment Station presents the following papers:

*Paper A* is a statement of the expenditures for the quarter ending March 31, 1893.

*Paper B* is a list of warrants drawn during the same quarter, No 130 to 209, inclusive, and is accompanied with vouchers for the same.

*Paper C* is a statement of the appropriations, expenditures and balances for the quarter ending June 30, 1893.

*Paper D* is a statement of appropriations asked for the next quarter.

PAPER A—STATEMENT OF EXPENDITURES FOR QUARTER ENDING MARCH 31, 1893.

	Appropriated.	Expended.	Balances.
Buildings and repairs.....	\$25 00	.....	\$25 00
Board expense.....	40 00	\$24 71	15 29
Books and publications.....	50 00	50 02	.....
Botanical apparatus.....	10 00	1 00	9 00
Bulletins.....	750 00	583 59	166 41
Chemical apparatus.....	50 00	40 05	9 95
Fuel and lights.....	100 00	86 24	13 76
Incidentals.....	25 00	23 37	1 63
Printing, stationery, and postage.....	25 00	24 98	.....
Meteorological apparatus.....	15 00	12 15	2 85
Salaries.....	1,985 00	1,985 00	.....
Seeds and trees.....	100 00	80 19	39 81
Tools and supplies.....	25 00	15 95	9 05
Wages and teams.....	800 00	760 66	39 34
Sundry—			
Dairying experiments.....	150 00	20 63	129 37
Exhibit at Columbian Exposition.....	50 00	.....	50 00
Total.....	\$4,200 00	\$3,688 54	\$511 48

PAPER C—STATEMENT OF EXPENDITURES, QUARTER ENDING JUNE 30, 1893.

	Appropriated.	Expended.	Balances.
Buildings and repairs.....	\$25 00	.....	\$25 00
Board expenses.....	40 00	.....	40 00
Books and publications.....	150 00	.....	150 00
Botanical apparatus.....	10 00	.....	10 00
Bulletins.....	500 00	\$237 69	262 31
Chemical apparatus.....	50 00	32 56	17 44
Fertilizers.....	50 00	.....	50 00
Fuel and lights.....	100 00	.....	100 00
Incidentals.....	25 00	10 00	15 00
Printing, stationery, and postage.....	150 00	148 90	1 10
Salaries.....	1,775 00	1,081 66	693 34
Seeds and trees.....	50 00	14 20	35 80
Tools and supplies.....	50 00	1 80	48 20
Wages and teams.....	1,100 00	444 02	655 98
Sundry—			
Dairying experiments.....	100 00	4 00	96 00
Columbian Exposition work.....	80 00	.....	80 00
Total.....	\$4,255 00	\$1,974 89	\$2,280 17

## PAPER D—ESTIMATES, QUARTER ENDING SEPTEMBER 30, 1893.

Buildings and repairs.....	\$25 00
Board expenses.....	40 00
Books and publications.....	50 00
Botanical apparatus.....	60 00
Bulletins.....	200 00
Chemical apparatus.....	170 00
Fuel and lights.....	60 00
Furniture and fittings.....	15 00
Incidentals.....	25 00
Printing, stationery, and postage.....	25 00
Salaries.....	1,950 00
Seeds and trees.....	10 00
Tools and supplies.....	25 00
Wages and teams.....	1,150 00
Sundry—	
Clover and wheat experiments.....	60 00
Dairying experiments.....	50 00
Columbian Exposition work.....	50 00
Total.....	\$3,965 00

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

The board of direction asks that its president and secretary have authority to use, for such purposes as may best subserve the interests of the Station, any unexpended balances of the station funds appropriated for this fiscal year.

The board of direction asks authority to undertake the following new work:

1. Investigations upon rhizobia, or the root tubercles of leguminous plants, with a view of securing their growth upon the roots of grain plants.

These organisms assist clover and other similar plants to utilize the nitrogen of the air; it is hoped that some artificial means may cause similar results with grasses and cereals. It is desired to employ upon this work for two months Mr. Albert Schneider, of Minneapolis, paying him for his services \$75 a month.

2. To try methods of protecting wheat from freezing and ice.

3. To experiment with crimson clover in northern and southern Illinois.

4. To experiment with the cow pea and red clover in southern Illinois.

5. To investigate at the Station the value of forage plants other than grasses and clovers.

The board finds that a part of the land it is using needs more draining, and asks that the University join the Station in this matter. The Station proposes to limit its half of the expenditure to \$100.

The board of direction has raised the salary of Mr. Clinton from \$850 to \$1,000 per annum for the rest of this year ending March 31, 1894; also of Mr. Gardner from \$900 to \$1,000 per annum for the same term. As the University pays a part of the salary of each of these men, the board of trustees is asked to confirm this action.

Respectfully submitted,

G. E. MORROW,

*President of the Board of Direction.*

## INSPECTION OF MILITARY DEPARTMENT.

The annual inspection of the military department was recently made and the report of the inspector is herewith submitted. It shows that commendable progress has been made during the last year. Especial at-

tention is asked to the matter of exchanging the old rifles, used here twenty years or more, for better ones as suggested by the inspector.

URBANA, ILLINOIS, May 18, 1893.

*To the Inspector General, United States Army, Washington, D. C.*

(Through Inspector General of the Department.)

SIR:—I have the honor to submit the following report of an inspection of the military department of the University of Illinois, Urbana, Illinois, made this day.

As full information in regard to the location, date of establishment, source of revenue, and government of this institution is contained in my report dated May 15, 1892, repetition herein is not deemed necessary.

The University, which is presided over by Thomas J. Burrill, A. M., Ph. D., (acting regent), is non-sectarian and is prepared to teach annually about 900 students. There are thirteen (13) buildings, one of which is a military building.

The military department was established in 1868. The course is satisfactory to the faculty. By some students the drill is said to be regarded as irksome; the military professor states, however, that there has been less dissatisfaction this year than during the two preceding years. During the inspection I questioned probably fifty cadets on this subject, and the majority of them expressed themselves as well satisfied with the military department.

Standing in military study and drill is placed on record with other class credits. Every male student must make two credits—when practicable during the freshman and sophomore years—one of which is given for two terms of drill and recitations in drill regulations, the other for four terms of drill. Drill practice counts 100 if every drill is attended and all duties well and faithfully performed. Absence, lack of promptness and attention, disobedience, improper uniform, etc., detract from this maximum standing; and any student falling below 75 fails to pass, loses all credit for the entire term, and can not proceed with other studies except by special permission of the faculty.

The University authorities are anxious that the military department should be what it ought to be, and, by way of inducement to continue in it, have created military scholarships which are awarded to those attaining the rank of commissioned officers in the battalion. No portion of the income from the land grant is especially set aside for the military feature of the institution, but all requests for financial assistance are granted.

The enrollment of students for the present college year is 714—610 males and 104 females. During this (spring) term, the attendance is 444 males and 77 females—total, 521. There are now in the military department 67 sophomores and 101 freshmen—total, 168; all of whom are over fifteen years of age.

None of the students live at the University; they all room in the two adjacent towns (Urbana and Champaign).

The military professor reports that the discipline of the military students, while not satisfactory in all respects, shows a marked improvement over the preceding year. Discipline is maintained by reports, warning, suspension and dismissal. The student is first warned by the military professor; if second warning becomes necessary within a year after the first, the parent or guardian is also notified; a third warning within a year brings the student before the faculty for discipline.

The aptitude of the students for military instruction is good. The following are reported to have shown special aptitude for the military service, viz.:

M. A. Earl, senior class; F. L. Busey, E. V. Capps, A. M. Munn, C. W. Noble, H. E. Reeves and W. N. Vance, sophomore class.

One cadet, John T. Stewart, has expressed a desire of entering the army as 2nd lieutenant by civilian appointment. He is a member of this

year's graduating class. In eight terms in the military department his average has been 93. His standing in other studies, I am informed, is about medium. His physical condition is apparently good.

The military organization is a battalion of four infantry companies, an artillery detachment and a band. During the winter term a hospital corps detachment, consisting of a steward and eight bearers, was maintained. The steward obtained a position in the hospital corps at the Columbian Exposition, Chicago, at the end of the winter term and the corps was broken up. The hospital detachment was composed of students intending to enter the medical profession, and, while in operation, the members evinced much interest in it.

There is no select company for special drill.

The band is composed of 2 seniors, 5 juniors, 7 sophomores, 9 freshmen and 2 preparatory students—total, 25. It is maintained by special appropriation from the general university fund.

Commissioned and non-commissioned officers are appointed by the military professor and approved by the faculty. To be eligible for corporals, students must have gained 2 term credits in class-room instruction and 2 in drill: for sergeants, 3 term credits in each; for lieutenants and captains, 6 term credits in each. The major is selected from amongst those who were company officers the preceding year. Captains and lieutenants are selected from the junior, and majors from the senior classes, but may be taken from other classes "when the good of the service may require it." Corporals are from the freshman and sergeants from the sophomore classes.

The uniform is a blouse and trousers of cadet gray, and forage cap of same color, with University badge ("U. of I"). Band uniforms, same with white trimmings. Commissioned officers wear the uniform of officers of the same degree in the National Guard.

The battalion carries the U. S. flag only.

Captain E. R. Hills, 5th Artillery, has remained on duty as professor of military science and tactics since my last inspection. His detail commenced here September 1, 1890. He resides at Urbana, about a mile from the University, and rents his house, none of the professors except one (agriculture) being provided with quarters. He is a member of the faculty, with all the rights, privileges, and authority of other heads of departments: and he observes the established usages affecting duties and obligations of other members. When performing his military duties he appears in proper uniform.

Captain Hills performs no non-military duties at the University, and receives no compensation from it.

All orders, appointments, promotions, etc., affecting the military department are made by the military professor, submitted to the faculty for approval, and then promulgated by him. Rules are made by the board of trustees.

Captain Hills enforces proper military discipline at all times when the students are under instruction, and requires them to appear in the prescribed uniform at all drills and military ceremonies. He has rendered the required reports to the adjutant general of the army, and has kept, for transfer to his successor, "Roster of the Battalion," "Report Book Officers," "Letters Sent," and copies of reports.

Practical instruction embraces infantry drill in the schools of the soldier, company, and battalion, and the ceremonies; extended order drill for squad, platoon, and company; target practice, signaling, and artillery drill. This instruction is given by the military professor personally or under his immediate supervision, and occupies about four hours per week, from 4 to 5 p. m., or (deducting the time required for the students to assemble at drill hall) strictly speaking, three and one-half hours per week.

Military drill is confined to the freshman and sophomore years, and is obligatory on all male students, except seniors and juniors who are not

commissioned officers, preparatory students, and those of the sophomore and freshman classes who are physically disabled or specially excused by the faculty.

Since last annual inspection, there have been 78 infantry company drills, 52 artillery drills in formation of detachments, manual of the piece, dismounting and mounting, carriage and limber, etc.; 22 battalion drills, 3 dress parades, and 5 reviews and inspections. No regular weekly company inspections have been had, but inspections have been made from time to time as part of the company drills. New students are exercised without arms from three to four weeks. There has been no artillery target practice, but artillery practice firing with blank cartridges has been had. Target firing with small arms has been limited to one afternoon's practice at 50 and 100 yards, which was attended with good results, although only twelve cadets (officers and sergeants) participated, owing principally to the unfavorable weather and the bad condition of the butts.

No other practical instruction has been had, except signaling with wand and flag. Seven signal drills with flag have been had this term.

The military professor states that instruction in telegraphy is not preferred to military signaling, and that it is not desirable to send to this institution, for instruction in long range signaling, some of the old style heliographs called in from posts.

There is a suitable drill ground for company and battalion drill in close order, but it is rather limited for extended order. A large hall, 100x150 feet, erected in 1889-90, affords excellent facilities for indoor drill. A target range—up to 400 yards—is located about a mile and a half south of the university buildings.

Theoretical instruction consists of recitations, and notes by the military professor furnished the sophomore class, and has been conducted by the military professor personally, with the exception that during the winter term, owing to the size of the freshman military class, the cadet major was employed as an assistant, and heard three recitations per week—the military professor taking the other three sections of that class at the same hour. During the winter and spring terms four, and during the fall term five hours per week are devoted to this instruction.

Since the last annual inspection the three classes, junior, sophomore, and freshman, have had a total of 152 recitations, embracing infantry drill regulations, guard duty, organization of the U. S. army, signaling, field fortifications, and military forces of the United States—the average attendance being: fall term, 175; winter, 158; and spring, 28.

There are no lectures delivered by the military professor, but he furnishes the sophomore class with notes on the organization of the U. S. army for war and peace, military forces of the United States, and cannon projectiles. No other theoretical instruction has been given, no campaigns have been studied by the students and no military essays have been prepared by them.

The text books in use are the Infantry Drill Regulations, Manual of Guard Duty, Wheeler's Field Fortifications, and Art and Science of War. The librarian states that the university library contains 300 volumes (including ordnance reports) on different military subjects.

There are 299 Springfield cadet rifles on the returns, but two are believed to be deficient. The rifles are not in good condition—the stocks are scratched and battered, etc. When not in use, they are stored in drill hall and armory, and cared for by the janitor. The accoutrements (300 sets) are much worn. The two (2) six-pdr. bronze guns, with carriages and limbers, that have been furnished the institution are in fair condition, but old and worn. They are kept either in the drill hall or in a small building erected for that purpose. All the foregoing property

belongs to the United States, and is insured at its full value per ordnance price list. Regular property returns are rendered to the chief of ordnance by the president of the University.

The full allowance of ammunition has not been drawn from the United States, and none is furnished by the State.

Attention is invited to the following extracts from the interesting and comprehensive *resumé* of the past year's work, submitted by Captain Hills:

"The fall term began September 15, and closed December 21, 1892. Commencing on September 20th, companies A and B, composed principally of sophomores, were drilled on Tuesdays and Fridays, from 4 to 5 p. m., in the school of the company, bayonet exercise, and in the school of the battalion. On September 19th, the freshman class was formed into two companies, C and D, and drilled on Mondays and Thursdays, from 4 to 5 p. m. For the instruction of these new companies in the school of the soldier, all the sergeants from companies A and B, except two, were required to drill squads. Arms were issued to some October 10th, and to the rest later on. About November 21st the companies were formed for company drill. In December they had bayonet exercise. The first sergeant of the artillery detachment during the preceding year left the junior military class, and to secure an officer for the detachment the former captain was induced to continue in that position. Artillery drills began October 11th. At the close of the fall term the battalion aggregated 224, the highest number reached during the year. \* \*

"During the full term 144 freshman were required to study and recite in the Infantry Drill Regulations. In order to make the credit required by the rules, 10 sophomores also recited with the freshmen. Three sections were formed—the first reciting on Mondays, the second on Wednesdays and the third on Thursdays, all from 3 to 4 p. m. The class went over the school of the soldier, including bayonet exercise, and was examined December 17th. There were 19 failures; at a subsequent examination 13 of these passed.

"The sophomore military class (the sergeants) recited on Thursdays, and reviewed the school of the soldier, including bayonet exercise, and completed the school of the battalion. All passed the examination satisfactorily. The junior military class studied field fortification, reciting on Fridays; all who were present at the examination passed.

"The marks received for recitations made and that obtained at examination were considered in determining the grade. A standing of 75 on a scale of 100 is necessary to secure a credit for any study. A student receiving a mark below 75 and not less than 60 is *conditioned* and may have a re-examination within 3 months. A mark below 60 constitutes a failure and the student may not proceed with any studies without special permission of the faculty.

"At the beginning of the winter term, January 5, 1893, the organization of the battalion remained as before, but I found that the members of the junior military class, because of the amount of work required of them in other departments, had requested permission to resign their positions in the battalion. The matter was carefully looked into by the regent, who found that the request was not based on any dissatisfaction with the military department, but a desire to prosecute those studies which were to fit them for their chosen professions, and it was decided to relieve them. This left the battalion without any company officers and dissolved the junior military class. When the fall term closed, there were 17 sergeants; of these 12 continued during the winter term, 5 dropping out. Early in the term the sergeant major returned to his home on account of sickness and remained absent during the term. The four first sergeants were appointed first lieutenants and placed in command of the companies; four sergeants were advanced to first sergeants, the color sergeant was made sergeant major, and the remaining sergeant became color sergeant. These changes disarranged and seriously impaired instruction.



It was evident at once that the new officers who commanded the older companies (A and B) composed of their own classmates, were at a disadvantage; this was partly overcome but not wholly.

"Several students who were preparing for the medical profession applied for permission to form a hospital corps detachment. The request being granted, two litters were obtained from the adjutant general of the State by one of the students. Mr. H. R. Marsh was appointed hospital steward, and a detachment of 8 men placed under him for drill as bearers. These students drilled once each week with their respective companies and once at litter drill. They also received instructions in first aid to the injured from Professor Donald McIntosh, of the university faculty. They were regular in attendance and took great interest and pride in the work. Early in this spring term Mr. Marsh left to take a position in the hospital corps of the Columbian Exposition, and the detachment was then discontinued.

"During this term all drills were indoors and were in the schools of the company and battalion, and bayonet exercise. Battalion drill was had with but two companies, the floor space being insufficient for the four companies. Many of these drills were conducted by the cadet major under my direction. Winter term closed March 22, 1893, with a total of 212.

"In the winter term the freshman military class numbered 164. Upon my recommendation the class was divided into six sections and Cadet Major Earl employed to assist me. Every week we exchanged sections. Cadet Major Earl's assistance was of great value to me, and it is due him that I should express my high appreciation of his services, both as an instructor and as an officer of the battalion. The class studied and recited in the school of the company—close and extended order.

"The sophomore military class recited on Tuesdays, reviewing the school of the company and taking up the ceremonies, manual of guard, U. S. signal code, etc.

"At the examination of March 18th all members of both classes who were examined, except one, passed satisfactorily.

"The spring term began March 23, and closed June 7, 1893. A freshman military class was formed \* \* \* \* I found that I had but 10 men to fill the positions of officers and sergeants. The artillery detachment was without an officer. Owing to the weather I have not been able to have any outdoor drills this term, about one-half have been held indoors; and consequently but little has been accomplished in extended order. There have been several battalion drills, three parades, and five reviews and inspections. The strength of the battalion has been reduced to 177.

"There has been an unusual amount of sickness this year, not only among the students, but among the population in general, and quite a number have been obliged to return home on that account. Up to this day (May 17th) since September 19, 1892, the number of absences from drill on account of sickness has been, for the fall term, 145; winter term, 160; spring term, 45; total, 350.

"The freshman class has had, this term, recitations in the school of the battalion and the ceremonies; the sophomore class in guard duty, notes on cannon and projectiles, and practice in signaling with wand and flags.

"The target butt was partly torn down by some one, probably in search of lead, and was not repaired until about May 1st. Saturday being the only day available for practice, I have had but one afternoon on the range. The firing party consisted of officers and non-commissioned officers only, and as there is but one target it was slow work. The practice was at 50 and 100 yards, and the results were unusually good. This party had been instructed in aiming previous to firing.

"The artillery detachment has had instruction in the manual of the piece, formation of and posting detachments, mechanical maneuvers and firing with blank cartridges. Its composition has changed three times, wholly or in part, through members leaving college and being relieved because of absence from drill. This has impeded instruction somewhat.



Nine members of the band do not properly belong to the military department, thus reducing the aggregate to 168.

It is gratifying to state that there is a marked improvement in almost every respect in the military department as compared with last year.

Captain Hills has labored most earnestly and energetically to advance his department on the road of progress. He has the full confidence and co-operation of the University authorities, and it seems clear that the young men composing the cadet corps are responding with alacrity and good faith to the unflagging work on their behalf of their able military instructor.

Much improvement can still be made, but it is believed that another year of progressive work similar to the last will practically place the military department of this institution quite near its high place of excellence of years ago. This department is now advancing, not retrograding, and the suggestion is made for the consideration of proper authorities that it might be proper encouragement to replace, at an early day, all the old and battered rifles and worn out accoutrements by an issue of new ones throughout, and that proper steps be taken to cause each cadet to care for his own piece and equipments, and thus insure individual responsibility. This seems so important that if necessary to effect it, the cadet should be relieved from a sufficient part of some other work or study, and thus avoid having the above duty appear as an added burden.

Very respectfully,

J. M. LEE,

*Captain 9th Infantry, Asst. to Inspector General, Dept. of the Missouri.*

I would suggest that this report be printed in the minutes of the board.

Respectfully submitted,

THOMAS J. BURRILL,

*Acting Regent.*

Mr. Ramsey, principal of the high school of Fall River, Mass., having requested an interview with the trustees on the matter of the regency, was invited to address the board.

On motion of Mr. Bullard, authority was given to confer bachelors' and masters' degrees as recommended by the faculty of the University. (For list see page 100.)

On motion of Mr. Raymond, the board of supervisors of Champaign county, which was then in session at the court house, in Urbana, was invited to attend commencement exercises.

The board then adjourned to meet at 7:30 o'clock p. m.

#### EVENING SESSION.

At this session of the board meeting Mr. McKay was present, besides those present in the afternoon.

The treasurer presented his report, which was referred to the finance committee.

### TREASURER'S REPORT.

JOHN W. BUNN, TREASURER,

IN ACCOUNT WITH UNIVERSITY OF ILLINOIS.

[illegible]

*Treasurer's Report—Concluded.*

May	31	Balances—			
		Current funds.....	\$4,618	45	
		State appropriations.....	4,615	45	
		United States fund.....	1,726	03	
					\$10,959 93
					<u>\$40,726 18</u>

URBANA, June 6, 1893.

JOHN W. BUNN, *Treasurer.*

Mr. Webber, the mayor, some members of the city council, and other citizens of Urbana, were received by the board, and some time was devoted to discussion of drainage questions.

On motion of Mr. McKay, the board appointed the committee on buildings and grounds to meet with the Urbana city council the next evening for further discussion of the same subject.

The board then adjourned to meet at 8 o'clock a. m., Wednesday.

## SESSION OF WEDNESDAY MORNING.

The board met pursuant to adjournment, the same members being present as on the preceding day, with the exception of Mr. McKay.

The report from the Experiment Station was then considered.

On motion of Mr. McLean, authority was given the board of direction to undertake the new work described in the report.

On motion of Mr. Bullard, authority was given the board of direction to expend station funds according to the askings and estimates submitted.

The advance in the salaries of Messrs. Clinton and Gardner was approved.

On motion of Mr. McLean, \$100 was appropriated from current funds to be used for drainage purposes, along with the amount appropriated from station funds.

On motion of Mr. McLean, it was voted to make the exchange of arms as recommended by Captain Hills. The business agent, Captain Hills, and the regent were given authority to effect the exchange and to spend such amount from current funds as might be needed to defray the expenses of the change.

The board then adjourned to meet at 3 o'clock in the afternoon.

## AFTERNOON SESSION.

The board met at 3 o'clock p. m., pursuant to adjournment.

The president and secretary were authorized to execute a bond in the sum of \$10, the same being required to be filed with the collector of customs of the port of New York, in order that certain photographs purchased by Professor Moss, for the use of the University, and with University funds, might be entered free of duty.

The secretary reported that the people of school district No. 117, Kingman township, Renville county, Minnesota, wished to secure an acre in the southwest corner of NW  $\frac{1}{4}$ —8—116—34 for a school house site.

On motion of Mr. Raymond, it was voted to sell to said district one acre of ground, situated as above described, for a school house site, with a clause in the conveyance providing that when no longer so used the land revert to the University of Illinois.

The committee on Minnesota lands made the following report which was received for record:

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

GENTLEMEN: The sales of lands not heretofore reported have been as follows:

No.	Date.	Name.	Description.	No. acres.	Price per acre.	Whole price.	Cash paid.
112	March 1, 1893..	Ole Lundquist....	N ¼ NE 26-117-34..	80	\$15 78	\$1,262 50	\$125 00
113	" " ..	Peter Lundquist..	S ¼ NE 26-117-34..	80	15 78	1,262 52	125 00
114	" " ..	Simon Larson.....	NE ¼ 34-117-33..	160	15 00	2,400 00	360 00
115	Dec. 31, 1892....	H. H. Killeen.....	S E S E 31-124-36..	40	12 50	500 00	125 00
				360		\$5,425 00	\$735 00

Respectfully submitted,

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

The secretary stated that he had procured a book for the endowment fund register, as directed by the trustees at their meeting of March 28th.

On motion of Mr. Bullard, it was voted that the register be submitted to the finance committee.

Mr. Armstrong, from the committee on instruction, made an informal report with regard to the regency.

The papers presented by the regent from the faculty, with regard to the proposed new building for the college of engineering, were referred to the committee on buildings and grounds.

Mr. G. W. Parker, instructor in wood working and foreman, was given a vacation of two months, on motion of Mr. Bullard.

On motion of Mr. McLean, it was voted to print in the minutes a report of an inspection recently made by Capt. J. M. Lee, 9th Infantry, assistant to inspector general, Department of the Missouri.

Mr. Bryant stated that Governor Altgeld, who had delivered the commencement address, had been unable to remain for the board meeting. He had, however, in conference with some members of the board, urged that the erection of the new building be pushed as rapidly as possible.

Mr. Bryant offered the following resolution, which was adopted:

*Resolved,* That we most heartily approve of the recommendation of Governor Altgeld, and that the committee on buildings and grounds begin immediately to make preparation for the construction of the building for the engineering college, and that the committee has our hearty good will and support in pushing forward the erection of the building with all practicable dispatch.

On motion of Mr. McLean, the items in the regent's report were considered in detail.

The scheme for the classification of instructors in the University, and of their salaries was referred to the committee on instruction.

The recommendation with regard to leasing ground to the members of the faculty for building purposes was referred to the following committee, appointed by the president, Messrs. McLean, Morgan, Raymond.

The several requests for appropriations presented by the regent were referred to the finance committee to be reported upon as soon as practicable.

The proposition for a store room in the basement of the chemical laboratory, to be connected by an elevator with the laboratories upon the first and second stories, was referred to the committee on buildings and grounds..

The following matters were referred to the committee on instruction: Students' petitions with regard to the mechanical engineering department; the recommendation presented by the dean of the college of engineering; the recommendation by Professor Ricker, with regard to the department of architecture; the request for a course of lectures before the colleges of agriculture and science; the report by Professor Forbes with regard to the work in the zoological department and concerning the transfer of physiology to that department; and the communication from the dean of the college of literature.

Miss Merrill's paper with reference to what was desirable to do for the welfare of the young women attending the University, was referred to a special committee, Messrs. Morgan, Bryant, and Armstrong.

The farm report was referred to the farm committee.

Mr. McLean offered the following resolution, which was adopted:

*Whereas*, There is a standing rule of this board requiring the head of each department of the University to keep an inventory book, in which to enter in detail all apparatus and other property belonging to his department, therefore, be it

*Resolved* that in addition to keeping said book, as required by said rule, it is ordered that the head of each department shall present to the board, at its annual meeting in March, an inventory of all apparatus and other property belonging to said department, together with a statement of the condition thereof. Said reports to be delivered to the business agent 5 days before said annual meeting and it is made the duty of the business agent to present these reports.

Mr. Armstrong moved that Professor Shattuck be made business agent of the University, at a salary of \$2,600 a year.

On motion of Mr. Morgan the subject was referred to the finance committee to be reported upon before the board adjourned.

The committee on instruction reported verbally, recommending the appointment of Miss Elizabeth Cooley, of Morgan Park, Ill., as assistant professor of German, at a salary of \$1,600 per annum, and the appointment was approved.

The committee further reported recommending the establishment of a chair of political science. This recommendation also was adopted.

Mr. Morgan offered the following resolution, which was adopted:

*Resolved*, That the committee on buildings and grounds be and is hereby instructed to proceed at once in its discretion to construct suitable water closets for use at University Hall. Also to enlarge and improve the cloak and dressing room, and the coat room.

The board then adjourned to meet at the Columbian Hotel, Urbana, Ill., at 8:30 o'clock p. m.

## EVENING SESSION.

The board met at the Columbian Hotel, Urbana, at 9 o'clock p. m.

The executive committee made the following report:

UNIVERSITY OF ILLINOIS, June 6, 1893.

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

GENTLEMEN: Your executive committee reports that April 8, 1893, it contracted with the Garvin Machine Co., of New York, for

1 No. 1 universal milling machine, complete with counter-shafts and all attachments belonging thereto, price \$625:

And with the Lodge and Davis Machine Tool Co., Cincinnati, Ohio, for 1 14-inch engine lathe, complete with counter-shafts and all attachments belonging thereto, price \$225.

1 No. 1 Fox Monitor, with dovetail set-over and quick return, with counter-shaft and all attachments belonging thereto, price \$150.

1 15-inch crank shaper with counter-shaft and all attachments belonging thereto, price \$300.

These machines are all to be used as a part of the exhibit of the mechanical engineering department at the World's Columbian Exposition.

The condition of the contracts is that if the machines shall be returned in good shape at the expense of the University the contracts shall thereby be satisfied; if they are not so returned, that the University shall be liable for the machines at the prices named.

Respectfully submitted,

N. W. GRAHAM, }  
N. B. MORRISO, } *Executive Committee.*  
S. A. BULLARD, }

The committee further reported that upon its request to the governor he had sent a message to the General Assembly recommending that the University be empowered by law to loan its endowment fund upon real estate security.

On motion of Mr. Raymond, the action of the committee was approved.

The committee on instruction made a further report recommending the establishment of a chair of pedagogy, and the recommendation was adopted.

On motion of Mr Morgan, Mr. Edward Kimball Hall, director of the gymnasium and instructor in athletics, was re-appointed for the year beginning September 1, 1893, at a salary of \$1,500 a year.

On motion of Mr. Bullard, the following appropriations were made as recommended by Professor S. W. Shattuck, business agent.

Board expense .....	\$500 00
Salaries for instruction and regent.....	14,613 00
Salaries for services.....	834 91
Buildings and grounds.....	400 00
Fuel and lights.....	1,500 00
Stationery, printing, and postage.....	500 00
Catalogues and advertising.....	1,200 00
Laboratories.....	200 00
Library and apparatus.....	50 00
Incidentals.....	200 00
Water supply.....	275 00
Furniture and fixtures.....	150 00
Mechanical, architectural, agricultural, and horticultural departments.....	700 00
Military department.....	50 00
Military scholarships.....	90 00
Accredited school diplomas.....	135 00
Commencement.....	balance 200 00
University bulletins.....	" 100 00
<i>Illini</i> subscriptions.....	" 93 34
Music.....	" 100 00
Map of University grounds.....	" 25 00
Minnesota lands.....	" 105 10
Furnishing Natural History Hall.....	" 86 77
Art department.....	" 10 96
World's Fair exhibit.....	" 100 00
University extension.....	" 75 00
Gymnasium .....	" 49 22

\$21,343 63

The committee on instruction, and the regent were given authority, with the approval of the executive committee, to fill, in their discretion, vacancies in the crops of instructors below professorships.



The committee on instruction reported, recommending that some person be made principal of the preparatory department, and the recommendation was approved.

The board then adjourned to meet at 8 o'clock a. m., Thursday.

# SESSION OF THURSDAY MORNING.

The board met in the University Parlor at 9 o'clock a. m.

The finance committee made the following reports, which were severally adopted:

URBANA, ILL., June 7, 1893.

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

GENTLEMEN: Your finance committee has examined the report of the treasurer, J. W. Bunn, for the quarter ending May 31, 1893, showing balance and receipts amounting to \$40,726.18; expenditures, amounting to \$29,766.25; and a balance on hand May 31, 1893, \$10,959.93, and has found the report correct.

It has also examined vouchers submitted by the business agent for the quarter ending Feb. 28, 1893, No. 301 to 675, inclusive.

The committee has also examined vouchers No. 130 to 209, inclusive, submitted by the board of direction of the Experiment Station, and has found all these vouchers correct and properly receipted.

Respectfully submitted,

ALEXANDER MCLEAN, } *Finance Committee.*  
JAMES E. ARMSTRONG, }

URBANA, ILL., June 7, 1893.

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

GENTLEMEN: Your finance committee reports that it has examined warrants No. 701 to 1,375, inclusive, issued and paid from March 1, to September 1, 1892, and warrants No. 1 to 675, inclusive, issued and paid from September 1, 1892, to February 28, 1893, and that it has found the same correct and duly canceled.

Respectfully submitted,

ALEXANDER MCLEAN, } *Finance Committee.*  
JAMES E. ARMSTRONG, }

URBANA, ILL., June 7, 1893.

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

GENTLEMEN: Your committee having had before it the petition from the University military band, recommends that \$100 be paid said band on the following conditions:

1. Should said band go to World's Fair, it will be under the control of the Illinois board of commissioners as to when and where it shall render service.

2. Said \$100 will be paid to the band upon bill rendered by the leader of the band, together with a certificate from the secretary of the board of Illinois commissioners, that service has been satisfactorily rendered.

Respectfully submitted,

ALEXANDER MCLEAN, } *Finance Committee.*  
JAMES E. ARMSTRONG, }

URBANA, ILL., June 7, 1893.

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

GENTLEMEN: Your committee reports upon the matter of the business agent, that it has had an interview with Professor Shattuck, and has found that he preferred the present state of affairs should continue.

Your committee, therefore, recommends that Professor Shattuck be continued as business agent from Sept. 1, 1893, to Aug. 31, 1894, at a salary of \$600 per annum. It further recommends that the matter of an assistant in the mathematical department be considered by the committee on instruction.

Respectfully submitted,

ALEXANDER MCLEAN, }  
JAMES E. ARMSTRONG, } *Finance Committee.*

URBANA, ILL., June 7, 1893.

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

GENTLEMEN: With regard to appropriations asked for in the papers presented with the regent's report your committee recommends:

1. An appropriation of \$216.50 from U. S. fund to the college of engineering for the purpose of purchasing instruments, as asked for by the dean of the college, Professor Ricker.

2. An appropriation of \$50 from state appropriation for apparatus and materials, for the purchase of photographs, etc., for the department of municipal engineering.

3. An appropriation of \$239 from U. S. fund, for the department of agriculture.

4. An appropriation of \$175 from state appropriation for books and publications, for binding books belonging to the library.

5. An appropriation of \$1,100 from state appropriation for buildings and grounds to lay cement walks as recommended by the regent, except that from the west door of the University Hall and that this amount be expended under the direction of the committee on buildings and grounds.

6. An appropriation of \$300 from state appropriation for buildings and grounds, for cleaning buildings; and \$150 for care of grounds, both sums to be expended under the direction of the business agent.

7. An appropriation of \$10.85 from current funds, to pay expenses incurred by the regent, as per account rendered.

8. With regard to the request made by the Athletic Association your committee recommends that said association be asked to lay before the finance committee a statement of its financial condition, taken from its books, so that the committee may have at hand the facts on which to base intelligent action.

9. An appropriation of \$245 from U. S. fund for civil engineering department.

10. An appropriation of \$500 from current funds, for supplies for the chemical department, the amount to come from the income of the department.

11. An appropriation of \$100 from state appropriation for apparatus and materials for the use of the department of Greek.

12. An appropriation of \$103 from current funds, for the school of art and design.

13. An appropriation of \$200 from U. S. funds for purchase of a band saw and fixtures for the use of the architectural shop.

14. An appropriation of \$146 from current funds, to pay expense bills of Messrs. McKay and Armstrong.

15. An appropriation of \$100 from current funds, for the military department, for re-fitting target butts and the purchase of a tent and other material.

As to the other requests, your committee refers them back to the board without recommendations, but it deems them worthy of immediate attention.

Respectfully submitted.

ALEXANDER McLEAN, } *Finance Committee.*  
JAMES E. ARMSTRONG, }

URBANA, ILL., June 7, 1893.

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

GENTLEMEN: Your committee recommends that an appropriation from the state appropriation for taxes paid by the treasurer be made for taxes on lands in Minnesota.

Also that the president and secretary be directed to draw upon the Auditor of Public Accounts such orders as the law requires, in order that he may issue to the treasurer of the University his warrants upon the state treasurer for the amounts appropriated by the legislature to the University of Illinois and to the State Laboratory of Natural History.

Your committee further recommends that from the appropriations for the State Laboratory of Natural History assignments be made for the quarter beginning July 1, 1893.

Respectfully submitted,

ALEXANDER McLEAN, } *Finance Committee.*  
JAMES E. ARMSTRONG, }

Mr. McLean offered the following resolution, which was adopted:

*Resolved*, That a special committee of three members of this board, and Drs. Burrill and Forbes, be appointed for the purpose of obtaining such material from the World's Columbian Exposition as will be of value to the University; and that the sum of \$2,000 from the state appropriation be appropriated to be used in purchasing such material, for delivering, and other expenses, and that said committee be given full power and authority to carry out the purpose of this resolution, reporting their action to this board.

The president appointed for this committee Messrs. Armstrong, Morgan, and Morrison.

Mr. Morgan offered the following resolution, which was adopted:

*Resolved*, That Dr. Burrill, Professor Morrow, Professor Talbot and Professor Palmer be placed in exclusive charge and authority over the mechanical exhibit of the University at the World's Columbian Exposition and put it at once into a thoroughly presentable condition.

Mr. Bullard reported from the executive committee that the Union Manufacturing Company had tendered the board, through the business agent, a contract concerning the water supply for the University, as follows:

#### CONTRACT.

It is hereby agreed by and between the Union Manufacturing Company, party of the first part, and the trustees of the University of Illinois, party of the second part, that in consideration of the sum of \$500 per year the said Union Manufacturing Company shall furnish the said University of Illinois with a sufficient supply of water, to be used for the same purpose for which it is now being used by said University, for the term of five years from the first day of January, 1893, the said party of the second part agreeing to pay party of the first part \$125 at the end of each three months during the existence of this contract, beginning the first day of April, 1893. It is hereby understood and agreed that should anything occur at water works' plant or to the mains to prevent party of the first part from furnishing the supply of water above mentioned, they will not be held liable for damages, and party of the second part will be released from paying for water for the time the supply is cut off.

The committee recommended that the contract be agreed to by the University when the following words had been added thereto: "It is understood and agreed that the said University may use water for all purposes necessary for the conduct of the institution."

The president and secretary were authorized to execute such contract on behalf of the University.

The sum of \$50 was appropriated from current funds to cover the deficiency in the appropriation for water supply since the expiration of the former contract, October 1, 1892.

The business agent made the following report:

UNIVERSITY OF ILLINOIS, June 6, 1893.

*Nelson W. Graham, Esq., President Board of Trustees, University of Illinois,*

SIR: I have the honor to hand you herewith the following named financial statements:

Paper A is a statement of the current appropriations for the three months ending May 31, 1893.

Paper B is a showing of the state appropriations May 31, 1893.

Paper C and C 2nd is the same for the United States fund.

Paper D is a list of vouchers presented for audit, being No. 301 to 675 inclusive.

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

Paper F is an estimate of current receipts and expenses, on the present basis as to the expenses, for the twelve months ending Sept. 1, 1894.

#### PAPER A—CURRENT APPROPRIATIONS.

March 14, 28, and 29, 1893.	Appr'p'iated.	Receipts appr'p'iated.	Expended.	Balance.
Board expense.....	\$500 00	.....	\$460 87	\$39 13
Salaries for instruction { Current .....	.....	.....	{ 5,634 42 }	.....
{ State.....	15,995 00	.....	{ 6,925 24 }	1,075 06
{ United States fund. }	.....	.....	{ 2,360 28 }	.....
Salaries for services.....	1,865 00	\$16 66	1,783 68	67 98
Buildings and grounds.....	100 00	40 00	72 44	67 56
Fuel and lights.....	1,000 00	37 54	811 89	225 65
Stationery, printing, catalogue.....	1,100 00	.....	491 42	608 58
Preparatory year.....	.....	665 00	1,064 04	.....
Mechanical department.....	100 00	211 84	282 12	29 72
Architectural department.....	100 00	2,082 28	1,428 85	753 43
Agricultural department.....	100 00	1,893 97	535 00	1,458 97
Horticultural department.....	50 00	145 70	31 75	163 95
Military department.....	50 00	.....	21 87	28 13
Laboratories.....	200 00	132 00	314 76	17 24
Library and apparatus.....	50 00	.....	15 68	34 32
Incidentals.....	200 00	.....	98 95	101 05
Gymnasium.....	50 00	.....	78	49 22
University extension.....	75 00	.....	.....	75 00
Water supply.....	150 00	.....	.....	150 00
Furniture and fixtures.....	100 00	.....	37 55	62 45
Military scholarships.....	60 00	.....	.....	60 00
Accredited schools.....	150 00	.....	131 84	18 16
High school circular.....	200 00	.....	183 70	16 30
World's Fair exhibit.....	100 00	.....	.....	100 00
Natural History Hall, moving.....	466 60	.....	379 83	86 77
Minnesota lands.....	117 85	.....	12 75	105 10
<i>Illini</i> subscriptions.....	186 67	.....	93 33	93 34
Art department.....	10 96	.....	.....	10 96
University bulletins.....	100 00	.....	.....	100 00
<i>Technograph</i> .....	100 00	.....	100 00	.....
Map of grounds.....	25 00	.....	.....	25 00
Commencement expenses.....	200 00	.....	.....	200 00
Music fees.....	.....	183 25	183 25	.....
Music.....	100 00	.....	.....	100 00

## PAPER B—STATE APPROPRIATIONS.

	Received.	Expended.	Balance.	Assigned.
Taxes on Minnesota lands.....	\$3,044 23	\$3,044 23	.....	.....
Buildings and grounds.....	5,000 00	4,456 31	\$543 69	\$543 69
Apparatus and materials.....	3,000 00	2,855 24	164 76	164 76
Mechanical and architectural shops.....	4,000 00	3,794 43	205 57	205 57
Books and publications.....	2,000 00	1,923 46	76 54	76 54
Cabinets.....	500 00	246 12	253 88	253 88
Expenses of instruction.....	40,000 00	40,000 00	.....	.....
Heating Military Hall.....	3,500 00	3,367 17	132 83	132 83
Natural History Hall.....	60,000 00	60,000 00	.....	.....
Heating and furnishing same.....	10,000 00	10,000 00	.....	.....
Metallurgical laboratory.....	4,000 00	4,000 00	.....	.....
	<u>\$135,044 23</u>	<u>\$133,666 96</u>	<u>\$1,377 27</u>	<u>\$1,377 27</u>
Illinois State Laboratory of Natural History.....	\$15,650 27	\$12,412 09	\$3,238 18	\$2,858 58

## 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	1,903 88	\$96 12	\$96 12
Total.....	<u>\$15,000 00</u>	<u>\$14,903 88</u>	<u>\$96 12</u>	<u>\$96 12</u>
<i>Year ending June 30, 1891.</i>				
Before reported on.....	\$14,510 00	\$14,510 00	.....	.....
Architectural department.....	1,430 00	1,314 85	\$115 15	\$115 15
Geological laboratory.....	60 00	45 86	14 14	14 14
Total.....	<u>\$16,000 00</u>	<u>\$15,870 71</u>	<u>\$129 29</u>	<u>\$129 29</u>
<i>Year ending June, 1892.</i>				
Before reported on.....	\$13,650 00	\$13,650 00	.....	.....
Library.....	2,000 00	1,816 11	\$183 89	\$183 89
Mechanical department.....	1,100 00	1,100 00	.....	.....
English literature.....	150 00	30 23	119 77	119 77
Metallurgical laboratory.....	100 00	.....	100 00	100 00
Total.....	<u>\$17,000 00</u>	<u>\$16,596 34</u>	<u>\$403 66</u>	<u>\$403 66</u>
<i>Year ending June 30, 1893.</i>				
Salaries for instruction.....	\$15,100 00	\$15,100 00	.....	.....
Mining engineering.....	50 00	45 44	\$4 56	\$4 56
Agricultural lectures.....	250 00	48 95	201 05	201 05
Mechanical department.....	400 00	350 90	49 10	49 10
Veterinary department.....	40 00	.....	40 00	40 00
Zoological department.....	400 00	400 00	.....	.....
College of engineering.....	150 00	150 00	.....	.....
Testing laboratory.....	40 00	21 13	18 87	18 87
Physics and electricity.....	800 00	786 62	13 38	13 38
Unassigned.....	770 00	.....	770 00	.....
Total.....	<u>\$18,000 00</u>	<u>\$16,903 04</u>	<u>\$1,096 96</u>	<u>\$326 96</u>

The board is requested to appropriate the amounts given under the head of expenses, in Paper E, for the three months ending September 1, 1893.

Respectfully submitted,

S. W. SHATTUCK,

*Business Agent.*

Thirty-five dollars was appropriated from current funds for repairs and tuning the piano in chapel.

The board then adjourned to meet at 9 a. m., Wednesday, July 5, 1893, at the University Hotel, Chicago.

W. L. PILLSBURY.

*Secretary.*

N. W. GRAHAM,

*President.*

#### ADJOURNED SESSION, WEDNESDAY AND THURSDAY, JULY 5 AND 6, 1893.

The board of trustees of the University of Illinois met in adjourned session at the University Hotel, 17 Congress street, Chicago, at 9 o'clock a. m., July 5, 1893. There were present Messrs. Armstrong, Bullard, Graham, McKay, McLean, Morgan, Morrison, Raab, and Raymond; absent, Governor Altgeld and Messrs. Bryant and Gore.

The minutes of the last meeting were approved.

The board discussed at some length the regency question and adjourned to meet at 7 o'clock p. m.

#### EVENING SESSION.

The board met pursuant to adjournment.

The committee on instruction reported verbally, recommending the appointment of David Kinley, PH.D., of Madison, Wis., to be assistant professor of political economy and social science, at a salary of \$1,800 a year, and the report was approved.

On motion of Mr. Armstrong, it was voted that instead of a chair of the French language and literature there be established a chair of the Romance languages.

The committee on instruction reported recommending that J. D. Bruner, A.B., of Baltimore, be appointed assistant professor of the Romance languages, at a salary of \$1,800 a year; that Frank M. McMurry, PH.D., of Normal, Ill., be appointed professor of pedagogics, at a salary of \$2,000 a year; and that Edward G. Howe, of Washington Heights, Ill., be appointed principal of the preparatory department, at a salary of \$1,800 a year, and the report was adopted.

On motion of Mr. Raab, it was voted that the committee on instruction consult with the regent and the deans of the several college faculties with regard to the constitution of the faculty of the University, and report thereon to the board at its next meeting.

The committee on instruction reported, recommending that Mr. H. E. Summers be appointed assistant professor in human physiology and vertebrate zoölogy, at a salary of \$1,500 a year, \$1,200 of which should be paid from the university funds and \$300 from the funds of the State Laboratory of Natural History; that James M. White, B.S., be appointed assistant professor of architecture, at a salary of \$1,300 a year; that William D. Pence, B.S., be appointed assistant professor of civil engineering, at a salary of \$1,200 a year; that Mr. George W. Parker be appointed instructor in wood working and foreman, at a salary of \$1,380 a year, the same as he has been receiving.

Also that the following named persons be appointed for the ensuing college year of ten months from September 1, 1893: Miss Edith A. Shattuck, assistant in drawing, at a salary of \$700; Mr. T. A. Clark, B.L., instructor in English, at a salary of \$1,000; Mr. C. D. McLane, B.S., instructor in general engineering drawing, at a salary of \$1,000; Mr. C. B. Clark, assistant in machine shop, at a salary of \$750; Mr. William E. Sanford, PH.C., instructor in pharmacy, at a salary of \$750; Alice M. Barber, M.S., assistant in physiology, at a salary of \$600; Herman S. Piatt, A. B., assistant in modern languages, at a salary of \$800; Mr. Her-

vey E. Parker, assistant in architectural shop, half time, at a salary of \$300; and the appointments were made.

The committee further reported recommending that the salary of Professor C. M. Moss be made \$2,000 a year; that the salary of Professor A. W. Palmer be made \$2,000 a year; and that the salary of Assistant Professor George W. Myers be made \$1,500 a year, and the report was adopted.

The committee on instruction and the regent were given power to fill, with the approval of the president, all places in the corps of instructors that it was necessary to fill.

The business agent made the following report, which was referred to the finance committee:

BUSINESS AGENT'S REPORT.

UNIVERSITY OF ILLINOIS, July 5, 1893.

*N. W. Graham, Esq., President Board of Trustees, University of Illinois,*

SIR:—The attention of the board is requested to the change in the form of the State appropriation from what it has been in the past. This will necessitate a change in the matter of keeping a record of the expenditures, unless the board sees fit to assign, or set aside at the beginning of each year, some definite sum for each general class; as, "Instruction in departments, \$40,000." If such assignments are not made, the record will be kept as it is for the United States fund.

Attention is also requested to the action of the board at its meeting of Dec. 13, 1892, authorizing the ordering of apparatus and supplies for the departments of physics, electricity, chemistry, and botany, amounting to \$5,200, to be paid for after July 1, 1893. These orders were given, and I now hold bills on that account amounting to some \$3,000, on which payment is expected at once.

An appropriation of the \$5,200 is requested. It might be assigned as follows:

United States fund of 1893-4—

Electricity and physics.....	\$4,000 00
State funds—	

Chemistry.....	500 00
Botany.....	200 00

Current funds (earnings)—

Chemistry.....	500 00
----------------	--------

Appropriations from current funds for several inclosed bills should be made:

James Inglis.....	\$18 00
Bacon, Mittendorf & Hall.....	5 83
" " ".....	3 00
" " ".....	4 36
Total.....	\$31 19

It was expected that these would have been met by the Illinois board of World's Fair commissioners, but its ruling shuts them out.

Last year the excavation for a coal house was made but the building was not put up as the necessary money was not available. Immediate action in this matter and any other, when changes are to be made in the buildings, is requested. The general repairs and cleaning are going on.

Respectfully submitted,

S. W. SHATTUCK,

Business Agent.

After some further discussion of the regency question the board adjourned to meet at 11 o'clock a. m., Thursday.

—9 U. I.

## SESSION THURSDAY MORNING.

The board met pursuant to adjournment, the same members being present as on Wednesday, except Mr. Raab.

The finance committee made the following reports, which were severally adopted:

CHICAGO, July 5, 1893.

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

GENTLEMEN: Your finance committee recommends the following appropriations as contemplated by the action of the board at its meeting Dec. 13, 1892.

From U. S. fund for 1893—

For departments of physics and electrical engineering.....\$4,000 00

From state funds—

For chemical laboratory..... 500 00

For botanical laboratory..... 200 00

From current funds (earnings of laboratory)—

For chemical laboratory..... 500 00

Respectfully submitted,

ALEXANDER MCLEAN,  
JAMES E. ARMSTRONG, } *Finance Committee.*  
F. M. MCKAY,

CHICAGO ILL., July 5, 1893.

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

GENTLEMEN: Your committee recommends the payment by appropriation from current funds of bills on file:

James Inglis, for bromide pictures..... \$18 00

Bacon, Mittendorf & Hall, for picture frames..... 13 19

Respectfully submitted,

ALEXANDER MCLEAN,  
JAMES E. ARMSTRONG, } *Finance Committee.*  
F. M. MCKAY,

The committee on buildings and grounds made the following report:

## ENGINEERING HALL.

CHICAGO, ILLINOIS, July 6, 1893.

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

GENTLEMEN: Your committee on buildings and grounds reports that it met June 7th, immediately after the adjournment of the board, and decided upon a competition for designs for the new engineering hall—the competition to be limited to the graduates of the architectural department of the University.

With the advice of the professors in the engineering courses the number and sizes of the rooms necessary for the building were fixed upon.

Your committee also determined to offer four prizes for the four best designs, the aggregate amount to be \$1,100, \$500 of which was to be applied upon the architect's fees for services, if the architect employed should be the one entitled to the first prize. Two and one-half per cent. of the actual cost of the building was offered as the price of the service of the architect.

It was the desire of the faculty of the college of engineering that there be erected one or two one-story buildings, isolated from the main building, for purposes of laboratory work in magnetic electricity and in other lines. Accordingly, the committee decided to erect one building, costing



about \$110,000, and with the \$20,000 remaining to construct such other buildings as should be needed, and to expend the balance, if any, in special equipment therefor.

The committee submits herewith the circular which was sent out June 9th under its direction:

UNIVERSITY OF ILLINOIS—COMPETITION FOR DESIGNS OF A BUILDING FOR THE COLLEGE OF ENGINEERING.

Designs are asked of architects, graduates of the University of Illinois, for an engineering building to be erected on the grounds of the University, Urbana, Ill.

The building will be designed with a basement 11 feet clear; floor, 2½ feet below ground on front line. Main story, 14 feet clear; second story, 14 feet clear; and attic story, 8 feet at sides and 16 feet clear at centers.

The materials of construction will be stone basement walls to height of water table, superstructure walls faced with hydraulic pressed brick, slate or tile and tin roofs. All interior walls and foundations of interior walls may be of brick masonry, but foundations of all exterior walls must be of limestone, the footings to be of dimension stone.

The external design and style of the building will be left to the competitors, but in general the committee desires a substantial looking building, of good proportions, graceful outlines, and with a small amount of ornamentation about cornices, gables, etc. The committee expresses a preference for a design without a tower.

The interior woodwork will be of oak, floors of quarter-sawed hard pine, using exposed or slow-burning construction for the ceilings.

Competitors will make sketches simply and not elaborate drawings, though the amount of elaboration will be left to them.

Plans will be submitted for each floor, the foundation and roof. No coloring will be allowed on plans beyond what is sufficient to indicate the materials for construction of walls.

Two elevations will be required, one front and one end, both in outline only, in black without any shading.

One perspective will be required. No shading or coloring will be permitted. Details to be worked in lightly but distinctly. Back lining will be allowed. All drawings will be made on a scale of one-eighth of an inch to the foot.

The building is to be limited in cost to \$110,000. This is to include the building alone, but complete—exclusive of heating apparatus, plumbing, gas piping, sewerage, electric wiring or lighting fixtures, and of furniture, but to include all else.

A carefully itemized estimate of the cost must also be submitted by each contestant.

There shall be presented in type-written copy a general, though not an elaborate, specification of the materials and labor to be used in the construction of the building.

This estimate and specification will be used by an expert in making an approximate estimate of the cost of the building.

The drawings must show sections of walls and depths, sizes, thickness, etc., of walls.

The following prizes are offered for designs, which in the opinion of the committee are worthy:

To the design chosen as best.....	\$500
To the design chosen as second best.....	300
To the design chosen as third best.....	200
To the design chosen as fourth best.....	100

If the architect obtaining the first prize has, in the judgment of the committee, experience and professional standing to take charge of the work, he will be engaged to furnish complete working drawings, details, specifications, etc., as architect of the building, at a compensation of two and one-half per cent. of the actual cost of the building. In case, however, he is engaged as architect, the amount of the first prize will be considered as a first payment on the commission.

Each competitor will mark each of his drawings, specifications, etc., with a distinct private mark or name known only to himself, leaving them free from any other names or marks, and will submit a sealed envelope containing his true name, the exterior of the envelope bearing the same mark or name shown on the competitor's drawings.

An expert will be employed by the committee to assist in a selection, which will be made before the envelopes containing the names of the contestants are opened. When the prizes have been awarded, the envelopes will be opened, and the owners of the premiated designs will be notified.

Designs will be sent by express to W. L. Pillsbury, secretary of the board of trustees, Urbana, Ill., so as to reach him on or before 12 o'clock noon Friday, June 30, 1893.

□The following programme is submitted to guide architects in their designs:

#### MECHANICAL ENGINEERING.

1 class room.....	500 sq. feet
1 class room.....	400 " "
1 drawing room.....	1,200 " "
2 drawing rooms, together, about.....	1,200 " "
1 study.....	300 " "
1 study.....	200 " "
2 studies or office rooms, together.....	450 " "
1 dark room.....	250 " "
1 students' room.....	400 " "
1 seminary room.....	400 " "

#### ARCHICETURE AND ARCHITECTURAL ENGINEERING.

3 recitation rooms, each.....	500 sq. feet
3 drawing rooms, each.....	1,500 " "
1 seminary room.....	500 " "
1 private drawing room.....	500 " "
2 private studies, each.....	200 " "
1 cabinet room.....	1,000 " "
1 photo studio.....	300 " "
1 dark room.....	100 " "
1 blue print room.....	250 " "
1 sensitizing room.....	100 " "
1 printing room.....	200 " "

#### MUNICIPAL ENGINEERING AND MECHANICS.

1 recitation room.....	600 sq. feet
1 recitation room.....	500 " "
1 draughting room.....	1,000 " "
2 studies, each.....	300 " "
1 office.....	300 " "

#### CIVIL ENGINEERING.

2 recitation rooms each.....	500 sq. feet
3 drawing rooms each.....	1,000 " "
2 offices or studies, each.....	300 " "
1 seminary room.....	400 " "

1 instrument room.....	700 sq. feet.
1 workshop to instrument room.....	500 " "
1 cement laboratory .....	700 " "
1 masonry laboratory .....	500 " "

ELECTRICAL ENGINEERING.

1 general physical laboratory.....	4,000 sq. feet
1 drawing room.....	1,000 " "
1 physical cabinet.....	1,000 " "
1 physical lecture room.....	3,600 " "
1 preparation room, adjoining last.....	400 " "
2 testing rooms, each.....	400 " "
6 study rooms, each .....	400 " "
2 rooms for standards of measurement, each.....	400 " "
1 constant temperature room.....	400 " "
2 private laboratories for instructors, each.....	500 " "
1 reading room and library.....	400 " "
1 battery room.....	625 " "
1 photometer room .....	625 " "
1 photographic dark room.....	100 " "

It is desired that there be provided, in addition to the above, one faculty parlor, 600 square feet; one room for meetings of engineering societies, 800 square feet; and such waiting and cloak rooms, toilet rooms, water closets, etc., as are usual and necessary in a building of this character.

S. A. BULLARD,  
RICHARD P. MORGAN, } *Committee on Buildings*  
N. B. MORRISON, } *and Grounds.*

URBANA, ILL., June 9, 1893.

Fifteen plans were received under the provisions of the circular. Your committee has carefully examined these and from them has chosen for premiums those designated as follows:

First prize, "His x mark."

Second prize, "Night owl."

Third prize, "A Z" in a triangle.

Fourth prize, Gold seal.

The names of the gentlemen who have submitted these designs are still unknown to your committee.

We ask that you appropriate \$1,100 for the prizes offered by the committee and that you authorize your committee to employ an architect and advertise for bids for the construction of the building.

The committee prefers that the letting of the contract for erection be done by the full board.

Respectfully submitted,

S. A. BULLARD,  
RICHARD P. MORGAN, } *Committee on Buildings*  
N. B. MORRISON, } *and Grounds.*

On motion of Mr. McLean, an appropriation of \$1,100 was made from the state appropriation for the engineering hall to pay the premiums offered for designs by the committee.

On motion of Mr. Raymond, the report of the committee on buildings and grounds was adopted, with the understanding that such minor changes should be made in the plans selected as the committee might find necessary, on consultation with the faculty of the college of engineering.

The letters containing the names of the authors of the several designs presented were then opened and it was found that the design to which the first premium had been awarded was by George W. Bullard, class of 1892, Tacoma, Washington; that the design to which the second premium had been awarded had been presented by Ralph W. Hart, class of 1892, of St. Joseph, Mo.; that the third design was by J. C. Llewellyn, class of 1877, of Chicago; and the fourth, by P. T. Burrows, class of 1892, of Chicago, and J. P. Hubbell.

On motion of Mr. Morgan, the secretary was instructed to request the authors of these several designs to donate them to the University.

And it was further voted to bind such as should be donated in a suitable portfolio and put them with the exhibit of the architectural department of the University at the World's Fair, and afterwards in the cabinet of the department at the University.

The finance committee made the following reports, which were severally adopted:

CHICAGO, July 6, 1893.

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

GENTLEMEN: Your finance committee recommends that the sum of \$1,700 be appropriated for purchasing apparatus and instruments to be used in the testing laboratory, the sum to be expended under the supervision of the regent, Dr. Burrill, and the business agent, and to report to this board at its next meeting.

Respectfully submitted,

ALEXANDER MCLEAN, }  
JAMES E. ARMSTRONG, } *Finance Committee.*  
F. M. MCKAY, }

CHICAGO, July 6, 1893.

*To the Board of Trustees of the University of Illinois:*

GENTLEMEN: Your committee recommends that the sum of \$300 be appropriated for the purpose of repairs on the University buildings.

Respectfully submitted,

ALEXANDER MCLEAN, }  
JAMES E. ARMSTRONG, } *Finance Committee.*  
F. M. MCKAY, }

CHICAGO, July 6, 1893.

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

GENTLEMEN: *Whereas*, The legislature at its recent session appropriated \$6,000 for furnishing Natural History Hall and completing its heating apparatus, therefore be it

*Resolved*, That a committee consisting of Richard P. Morgan, Dr. T. J. Burrill, and Professor S. W. Shattuck, be appointed to carry out the design of said appropriation; and that the said sum of \$6,000 be assigned for that purpose.

Respectfully submitted,

ALEXANDER MCLEAN, }  
JAMES E. ARMSTRONG, } *Finance Committee.*  
F. M. MCKAY, }

CHICAGO, July 6, 1893.

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

GENTLEMEN: *Whereas*, The legislature at its recent session appropriated the sum of \$6,500 for enlarging the central heating plant and for the purchase of two boilers and setting the same, therefore be it

*Resolved*, That this sum be assigned for the purpose named in the appropriation act and that the matter be referred to the committee on

buildings and grounds, with the request that arrangements be made at once to carry out the design of said appropriation.

Respectfully submitted,

ALEXANDER MCLEAN, }  
JAMES E. ARMSTRONG, } *Finance Committee.*  
F. M. MCKAY, }

CHICAGO, JULY 6, 1893.

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

GENTLEMEN: Your committee recommends that the bond of the treasurer of this board be in the sum of six hundred thousand dollars with good approved security, and the usual form of penalty conditions.

The bond when executed to be approved by the finance committee and the president of the board.

The committee further recommends that when such bond shall have been duly executed and approved the same shall be filed in the office of the business agent of this board.

Respectfully submitted,

ALEXANDER MCLEAN, }  
JAMES E. ARMSTRONG, } *Finance Committee.*  
F. M. MCKAY, }

The regent, Dr. Burrill, asked for the following appropriations:

From current funds—

For repair of field pieces.....	\$17 00
For curtains for library.....	50 00
For material for registration catalogue.....	50 00
For replacing instruments stolen from the engineering exhibit at the World's Fair.....	23 00
For apparatus stolen from the psychological exhibit..	54 50
For membership fee in the American Association of Agricultural Colleges and Experiment Stations.....	10 00
From state appropriation for buildings and grounds—	
For cleaning rooms.....	\$250 00

and the appropriations were made on motion of Mr. Morrison.

The committee on instruction reported, recommending the appointment of the following persons as fellows: William D. Gibbs, B. S.; James D. Phillips, B. S.; Clendon V. Millar, B. S., and Charles W. Carter, B. L.

At the request of Professor Forbes, director of the State Laboratory of Natural History, and with the approval of the committee on instruction, the laboratory staff was reappointed as follows:

Charles A. Hart, office entomologist, salary \$750.

Mary J. Snyder, stenographer, salary \$750.

John Marten, field entomologist, salary \$1,000.

Henry C. Forbes, librarian, salary \$1,000.

Mr. Morrison offered the following resolution, which was adopted:

*Resolved*, That Charles W. Spalding, of Chicago, be appointed treasurer of the University of Illinois for the unexpired term ending with the annual meeting of March, 1895, he to furnish a satisfactory bond with approved security.

On motion of Mr. Bullard, it was voted that the treasurer's bond should be approved by the finance committee and the president of this board, and that this having been done, the finance committee should settle with Mr. J. W. Bunn, the outgoing treasurer, and transfer the securities and moneys now in his hands belonging to the University to the treasurer-elect, Mr. Charles W. Spalding.

The committee on instruction, to which had been referred a paper submitted by Professor Ricker, with regard to certain changes which he

thought advisable in the courses of study in the architectural department, returned the same with the recommendation that the changes be made, and the report of the committee was approved.

CHANGES IN COURSES OF STUDY IN THE ARCHITECTURAL DEPARTMENT.

URBANA, ILL., July 3, 1893.

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

GENTLEMEN: I beg leave to recommend, in behalf of the department of architecture, that authority be given and provision be made for dropping the second, or sophomore, year of mathematics from the course in architecture, substituting therefor the following professional studies:

(A) 1. The architectural orders and their applications in architectural design.

A careful study of the five orders in general and detail, with examples of their employment in the best renaissance buildings of Italy and France. Applications will be made in a series of selected problems, especially such as most frequently arise in American buildings.

Ten hours weekly, mostly in designing.

2. The requirements and planning of buildings for the most important purposes.

A series of lectures summarizing the general requirements and conditions controlling the plans of buildings for various purposes, illustrated by examples of such buildings, selected from the best European and American work. References to the university library for a course of reading supplementary to the lectures. The solution of a number of problems in the arrangement and designing of plans of most important types of buildings in accordance with the lecture.

Ten hours weekly, mostly in designing.

3. The details of the principal architectural styles.

The term to be devoted to a study of the structural details of the chief architectural styles, a series of selected examples being drawn out at a large scale. The object of the course is to give the student a knowledge of the special forms and elements of each style in order to enable him successfully to use these styles in his future practice. The study to be taught as a third term of the "History of Architecture" fully completing that study.

Ten hours weekly, chiefly in drawing.

(B) Courses of study in architecture and in architectural engineering are to be found below, showing that these changes can be made without interfering with the work in any other courses of study in the University. It would require the teaching of mechanics and resistance of materials in simplified form, to distinct sections of those classes containing architects only.

Not more than one per cent of the architects now in good practice have ever studied higher mathematics, or would advise a student to take these studies. The sole practical use of analytical geometry and calculus is merely as a preparation for the work in analytical mechanics and resistance of materials, as these subjects are now taught. But excellent works on mechanics abound, in which only a good knowledge of algebra is required. The subject of resistance of materials is made unnecessarily complicated as it is now usually taught, and is rarely of much practical service to architectural students, except after years of post-graduate study and practice. But it may easily be simplified so that it can be taught after the freshman year of mathematics, and so that a much more useful knowledge of the subject can be obtained, than is now too often the case with a student weak in mathematics.

A still stronger reason for the proposed change is the fact that among all the students who have been under my instruction (I have found but one or two exceptions to the general rule) a student with any marked ability in architectural designing is invariably weak and poor in mathematics. This is simply the result of the fact that the two lines of intellectual work are quite incompatible, just as much as theology and real estate, or poetry and business. Many of the ablest designers having failed in mathematics, have become discouraged, have dropped everything except the technical architectural studies, and then have left the University without graduation, and therefore without any knowledge of mechanics and materials at all.

Is it for the best interests of the students in architecture and of the University, for the University to require them to take a year's work in higher mathematics, which is condemned as practically useless by the architectural profession and is forgotten as quickly as possible after the examinations are over, merely for the sake of symmetry in the courses in the college of engineering, when a year of most valuable and necessary professional studies may be substituted therefor with comparatively little extra work or cost?

An additional assistant in architecture will be needed during the next year under any conditions, on account of the great increase in the number of students. With this addition, the instructors in the department can arrange for the proposed changes in the course of the study in architecture. The course in architectural engineering should remain as at present, except slight changes in the order of the studies of the junior year.

The course thus modified would stand as follows:

#### ARCHITECTURAL COURSE.

##### FIRST YEAR.

Advanced algebra; elements of draughting; shop practice; French, German, or English; military.

2. Trigonometry; descriptive geometry and lettering; shop practice; French, German, or English; military.

3. Analytical geometry; advanced descriptive geometry; shop practice, French, German, or English; military.

##### SECOND YEAR.

1. Applied mechanics; wood construction; physics; military.

2. Strength of materials; stone, brick, and metal construction; physics; military.

3. Roofs; sanitary construction; physics, military.

##### THIRD YEAR.

1. History of architecture; architectural drawing (orders); free hand drawing or modeling; themes and elocution.

2. History of architecture; architectural drawing; methods of finishing; free hand drawing or water coloring; themes and elocution.

3. History of architecture; details of styles; architectural drawing (office work); themes and elocution.

##### FOURTH YEAR.

1. Superintendence, estimates, and specifications; architectural perspective; chemistry; thesis.

2. Heating and ventilation; architectural design (residences); requirements of buildings; thesis.
3. Esthetics of architecture; architectural design (problems); surveying; thesis.

#### ARCHITECTURAL ENGINEERING COURSE.

##### FIRST YEAR.

1. Advanced algebra; elements of draughting; shop practice; French, German, or English; military.
2. Trigonometry; descriptive geometry and lettering; shop practice; French, German, or English; military.
3. Analytical geometry; advanced descriptive geometry; shop practice; French, German, or English; military.

##### SECOND YEAR.

1. Differential calculus; wood construction; physics; military.
2. Advanced analytical geometry; stone, brick, and metal construction; physics; military.
3. Integral calculus; sanitary construction; physics; military.

##### THIRD YEAR.

1. Analytical mechanics; history of architecture; chemistry; themes and elocution.
2. Resistance of materials; history of architecture; architectural drawing; methods of finishing; themes and elocution.
3. Roofs; hydraulics; architectural drawing (office work); themes and elocution.

##### FOURTH YEAR.

1. Masonry construction; superintendence, estimates and specifications; architectural perspective, or advanced graphics; thesis.
2. Bridge analysis; heating and ventilation; architectural design (residences); thesis.
3. Bridge design; surveying; architectural design (problems); thesis.

Very respectfully submitted,

N. CLIFFORD RICKER,

*Professor of Architecture.*

The committee on instruction further reported as follows, and the report was approved:

CHICAGO, July 6, 1893.

*To the Board of Trustees of the University of Illinois,*

GENTLEMEN:—Your committee on instruction recommends that a chair of philosophy be established in the University, to be filled as soon as a suitable person can be found for the position.

Respectfully submitted,

F. M. MCKAY,  
JAMES E. ARMSTRONG, } *Committee on Instruction.*

The board adjourned to meet at 3 o'clock p. m.



THURSDAY AFTERNOON SESSION.

The board met pursuant to adjournment.

The finance committee made the following report, which was approved :

CHICAGO, July 6, 1893.

*To the Board of Trustees of the University of Illinois,*

GENTLEMEN: Your finance committee recommends that the sum of \$5,000 be appropriated for library purposes from the state appropriation for current expenses, as indicated in the report of the committee on legislation made at the meeting of Dec. 13, 1892, the same to be expended under the direction of the committee on library.

Respectfully submitted,

ALEXANDER MCLEAN, }  
JAMES E. ARMSTRONG, } *Finance Committee.*  
F. M. MCKAY, }

On motion of Mr. Armstrong, it was voted that the committee on buildings and grounds be authorized to select the site for the new engineering hall.

The committee on buildings and grounds, to which was referred certain proposed changes in the chemical laboratory, was given authority to expend such sums of money as might be required to make the changes it found necessary.

The finance committee made the following report, which was approved:

CHICAGO, July 6, 1893.

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

GENTLEMEN: Your committee recommends an appropriation of \$800 from state funds for the purpose of purchasing apparatus to be used in the psychological laboratory, the sum to be expended under the direction of the regent, the business agent and Professor Krohn.

\* On motion of Mr. Armstrong, it was voted that the professor of zoölogy and entomology should hereafter be styled professor of zoölogy.

Mr. Bullard moved that \$1,100 be appropriated to defray expenses of lectures on literary and scientific subjects, on strictly educational lines, and that the amount be expended under the direction of the regent and the deans.

The motion was lost.

On motion of Mr. Morrison, it was voted that the committee which was appointed at the meeting of June 6th and was put in charge of the exhibit from the mechanical department of the University at the World's Fair, be authorized to employ Mr. Bernard V. Swenson to take charge of said exhibit, and to pay him not to exceed \$85 a month for such service.

Mr. Morrison moved that a woman be appointed, at a salary not exceeding \$1,500 a year, as an instructor for the young women of the University in elocution and physical culture. Carried.

The finance committee made the following report, which was approved:

CHICAGO, July 6, 1893.

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

GENTLEMEN: The finance committee recommends the payment of the following bills for expenses incurred:

S. A. Bullard.....	\$115 70
N. B. Morrison.....	27 90
James E. Armstrong.....	14 05

Respectfully submitted,

ALEXANDER MCLEAN, }  
JAMES E. ARMSTRONG, } *Finance Committee.*  
FRANCIS M. MCKAY, }

On motion of Mr. McLean, it was voted that the treasurer, Mr. J. W. Bunn, be authorized to purchase certain school bonds for the endowment fund.

Mr. Bullard offered the following resolution, which was adopted:

WHEREAS, The amount of money that will be in the hands of this board to be used for the equipment of the different departments of the University during this present year and the next year, will be about \$15,000 per annum; therefore be it

*Resolved*, That the regent and the deans of the faculty of the University be requested to present to the board, at the September meeting, a scheme for the expenditure of these amounts of money, having regard to the best interests of the University and of the several departments, said scheme to be for the guidance of this board.

The president appointed Messrs. McLean, Morrison and Bullard a committee to draft resolutions with regard to the services rendered the University by the retiring treasurer, Mr. J. W. Bunn.

The board adjourned.

W. L. PILLSBURY,

*Secretary.*

N. W. GRAHAM,

*President*

*List of Warrants for Year Ending August 31, 1893.*

No.	Date.	To whom.	For what.	Amount.
	1892.			
1	Sept. 15.	V. Jobst.....	Labor and material on contract.....	\$5,853 60
2	" 15.	Robinson & Burr.....	" " " " " " " " " " " "	140 00
3	" 15.	Peoria Elevator Works.....	Lift.....	130 00
4	" 15.	S. A. Bullard.....	Expense to board meeting.....	36 65
5	" 15.	Emory Cobb.....	Traveling expenses.....	112 25
6	" 15.	Henry Raab.....	Expense to board meetings.....	16 50
7	" 15.	Alex. McLean.....	" " " " " " " " " " " "	24 56
8	" 15.	N. W. Graham.....	" " " " " " " " " " " "	29 39
9	" 15.	G. R. Shawhan.....	" " " " " " " " " " " "	17 25
10	" 15.	J. W. Bunn.....	Premium on bonds.....	3,212 00
11	" 15.	N. C. Ricker.....	Architect's commission.....	500 00
12	" 15.	S. W. Shattuck.....	Traveling expenses.....	74 47
13	" 15.	Union Manufacturing Co.....	Water 3 months, to Oct. 1, 1892.....	100 00
14	" 15.	Richards & Co.....	Rubber stoppers, etc.....	8 30
15	" 15.	Goodyear Rubber Co.....	Rubber tubing.....	16 63
16	" 15.	Pacific Express Co.....	Freight charges.....	2 95
17	" 15.	Agricultural department.....	Expenses.....	173 02
18	" 15.	Pay-roll of men, August, 1892.....	Labor.....	477 19
19	" 15.	Pay roll of students, August, 1892.....	" " " " " " " " " " " "	181 13
20	" 30.	A. B. Baker.....	Salary for September, 1892.....	70 00
21	" 30.	H. Jeakins.....	" " " " " " " " " " " "	25 00
22	" 30.	L. H. Walden.....	" " " " " " " " " " " "	12 50
23	" 30.	A. Iten.....	" " " " " " " " " " " "	12 50
24	" 30.	C. A. Herne.....	" " " " " " " " " " " "	15 00
25	" 30.	L. G. Lathrop.....	" " " " " " " " " " " "	15 00
26	" 30.	T. J. Burrill.....	" " " " " " " " " " " "	250 00
27	" 30.	S. W. Shattuck.....	" " " " " " " " " " " "	166 66
28	" 30.	E. Snyder.....	" " " " " " " " " " " "	166 66
29	" 30.	N. C. Ricker.....	" " " " " " " " " " " "	166 66
30	" 30.	J. D. Crawford.....	" " " " " " " " " " " "	166 66
31	" 30.	G. E. Morrow.....	" " " " " " " " " " " "	108 33
32	" 30.	I. O. Baker.....	" " " " " " " " " " " "	166 66
33	" 30.	S. A. Forbes.....	" " " " " " " " " " " "	83 33
34	" 30.	J. H. Brownlee.....	" " " " " " " " " " " "	166 66
35	" 30.	C. W. Rolfe.....	" " " " " " " " " " " "	166 66
36	" 30.	D. McIntosh.....	" " " " " " " " " " " "	150 00
37	" 30.	A. N. Talbot.....	" " " " " " " " " " " "	166 66
38	" 30.	A. W. Palmer.....	" " " " " " " " " " " "	150 00
39	" 30.	F. F. Frederick.....	" " " " " " " " " " " "	150 00
40	" 30.	S. W. Parr.....	" " " " " " " " " " " "	150 00
41	" 30.	M. R. Paradis.....	" " " " " " " " " " " "	150 00
42	" 30.	H. J. Barton.....	" " " " " " " " " " " "	166 66
43	" 30.	Charles M. Moss.....	" " " " " " " " " " " "	150 00
44	" 30.	W. J. Baldwin.....	" " " " " " " " " " " "	133 33
45	" 30.	C. W. Scribner.....	" " " " " " " " " " " "	166 66
46	" 30.	D. K. Dodge.....	" " " " " " " " " " " "	166 66
47	" 30.	G. W. Myers.....	" " " " " " " " " " " "	100 00
48	" 30.	Katharine Merrill.....	" " " " " " " " " " " "	100 00
49	" 30.	D. W. Shea.....	" " " " " " " " " " " "	150 00
50	" 30.	W. O. Krohn.....	" " " " " " " " " " " "	150 00
51	" 30.	G. W. Parker.....	" " " " " " " " " " " "	115 00
52	" 30.	R. Anderson.....	" " " " " " " " " " " "	133 33
53	" 30.	H. S. Brode.....	" " " " " " " " " " " "	100 00
54	" 30.	J. M. White.....	" " " " " " " " " " " "	100 00
55	" 30.	Edith A. Shattuck.....	" " " " " " " " " " " "	60 00
56	" 30.	T. A. Clark.....	" " " " " " " " " " " "	75 00
57	" 30.	R. H. Forbes.....	" " " " " " " " " " " "	75 00
58	" 30.	C. D. McLane.....	" " " " " " " " " " " "	37 50
59	" 30.	F. D. Gardner.....	" " " " " " " " " " " "	60 00
60	" 30.	W. E. Sandford.....	" " " " " " " " " " " "	30 06
61	" 30.	W. D. Pence.....	" " " " " " " " " " " "	75 00
62	" 30.	J. D. Thompson.....	" " " " " " " " " " " "	

*List of Warrants—Continued.*

No.	Date.	To whom.	For what.	Amount..
	1892.			
63	Sept. 30	A. L. Kuehnmstedt	Salary for September, 1892	\$100 00
64	" 30	Alice M. Barber	" "	40 00
65	" 30	H. S. Piatt	" "	40 00
66	" 30	C. B. Clark	" "	75 00
67	" 30	H. S. Parker	" "	30 00
68	" 30	W. L. Pillsbury	" "	41 66
69	" 30	Cleaves Bennett	" "	85 00
70	" 30	Grace Peabody	" "	40 00
71	" 30	John Marten	" "	83 33
72	" 30	Mary J. Snyder	" "	62 50
73	" 30	The American Naturalist	Subscription	8 00
74	" 30	V. Baker	Ice	3 33
74	" 30	A. C. McClurg & Co	Books	261 53
76	Oct. 15	V. Jobst	Labor and material on contract	4,470 87
77	" 15	S. P. Sutton	Supt. on Natural History Hall	100 00
78	" 15	Robinson & Burr	Labor and material on contract	3,962 26
79	" 15	E. K. Hall	Salary, September, 1892	100 00
80	" 15	Fuller & Fuller Co.	Glass, etc.	5 65
81	" 15	B. J. Karle	Cigar boxes	6 00
82	" 15	Beore & Thomas	Coal	6 70
83	" 15	H. C. Forbes	Salary, 3 months, to Sept. 30, 1892	250 00
84	" 15	W. A. Snow	Salary, Sept. and part of August, 1892	62 95
85	" 15	Lilly M. Hart	Drawings	71 85
86	" 15	Rand, McNally & Co	Charts	1 00
87	" 15	National typewriter	Exchange of ribbons	5 00
88	" 15	J. D. Crawford	Paper, envelopes, etc.	5 75
89	" 15	J. W. Spaulding	Postage	35 00
90	" 15	C. M. Moss	Traveling expenses	9 60
91	" 15	Olof Olson	Commission on land sales	19 90
92	" 15	W. L. Pillsbury	Traveling expenses	73 64
93	" 15	Agricultural department	Expenses, September, 1892	277 38
94	" 15	Kenner Bros	Grading	62 40
95	" 15	Bausch & Lomb Optical Co.	Slides and objectives	25 50
96	" 15	Rand, McNally & Co.	Maps	22 15
97	" 15	Maltby & Wallace	Plumbing	120 91
98	" 15	Am. Shorthorn Breeders' Asso.	Herd books	5 75
99	" 15	Pay-roll of students, Sept., 1892	Labor	86 96
100	" 15	Pay-roll of men, Sept., 1892	"	422 68
101	" 31	T. J. Burrill	Salary for October, 1892	250 00
102	" 31	S. W. Shattuck	" "	166 66
103	" 31	E. Snyder	" "	166 66
104	" 31	N. C. Ricker	" "	166 66
105	" 31	J. D. Crawford	" "	166 66
106	" 31	G. E. Morrow	" "	108 33
107	" 31	I. O. Baker	" "	166 66
108	" 31	S. A. Forbes	" "	83 33
109	" 31	J. H. Brownlee	" "	166 66
110	" 31	C. W. Rolfe	" "	166 66
111	" 31	D. McIntosh	" "	150 00
112	" 31	A. N. Talbot	" "	166 66
113	" 31	A. W. Palmer	" "	150 00
114	" 31	F. F. Frederick	" "	150 00
115	" 31	S. W. Parr	" "	150 00
116	" 31	M. R. Paradis	" "	150 00
117	" 31	H. J. Barton	" "	166 66
118	" 31	Charles M. Moss	" "	150 00
119	" 31	W. J. Baldwin	" "	133 33
120	" 31	C. W. Scribner	" "	166 66
121	" 31	D. K. Dodge	" "	166 66
122	" 31	G. W. Myers	" "	100 00
123	" 31	Katharine Merrill	" "	100 00
124	" 31	D. W. Shea	" "	150 00
125	" 31	W. O. Krohn	" "	150 00
126	" 31	G. W. Parker	" "	115 00
127	" 31	R. Anderson	" "	133 33
128	" 31	E. K. Hall	" "	100 00
129	" 31	H. S. Brode	" "	100 00
130	" 31	J. M. White	" "	100 00
131	" 31	Edith A. Shattuck	" "	60 00
132	" 31	T. A. Clark	" "	75 00
133	" 31	R. H. Forbes	" "	75 00
134	" 31	C. D. McLane	" "	75 00
135	" 31	F. D. Gardner	" "	37 50
136	" 31	W. E. Sandford	" "	60 00
137	" 31	W. D. Pence	" "	30 00
138	" 31	J. G. Thompson	" "	75 00
139	" 31	A. L. Kuehnmstedt	" "	100 00

*List of Warrants—Continued.*

No.	Date.	To whom.	For what.	Amount.
	1892.			
140	Oct. 31.	Alice M. Barber	Salary for October, 1892	\$40 00
141	" 31.	H. S. Piatt	" "	40 00
142	" 31.	C. B. Clark	" "	75 00
143	" 31.	H. E. Parker	" "	30 00
144	" 31.	W. L. Pillsbury	" "	41 66
145	" 31.	Cleaves Bennett	" "	85 00
146	" 31.	Grace Peabody	" "	40 00
147	" 31.	A. B. Baker	" "	70 00
148	" 31.	H. Jeakins	" "	50 00
149	" 31.	L. H. Walden	" "	25 00
150	" 31.	A. Iten	" "	25 00
151	" 31.	C. A. Herme	" "	30 00
152	" 31.	L. G. Lathrop	" "	30 00
153	" 31.	John Marten	" "	83 33
154	" 31.	Mary J. Snyder	" "	62 50
155	" 31.	Pantagraph Printing Co.	Printing rules, etc.	31 20
156	" 31.	A. C. McClurg & Co.	Stationery	31 75
157	" 31.	Public School Publishing Co.	Advertising	6 00
158	" 31.	Franklin Educational Co.	Ribbons, etc.	2 20
159	" 31.	G. E. Marshall & Co.	Record book	5 00
160	" 31.	German Agr'l Publishing Co.	Advertising	5 00
161	" 31.	T. R. White, Jr.	Gas, July 1-September 30, 1892	116 00
162	" 31.	W. W. Abbott	Picture mats	1 80
163	" 31.	I. O. Baker	Expense for eng. classes	4 86
164	" 31.	Whitall, Tatum & Co.	Chemical apparatus	57 54
165	" 31.	H. Mineka	Repairs	3 25
166	" 31.	Richards & Co., limited	Chemical supplies	67 17
167	" 31.	Crane Co.	Pipe and fittings	14 40
168	" 31.	James W. Queen & Co.	Models, apparatus, etc.	159 48
169	" 31.	Engineering Magazine Co.	Bound volume and subscription	3 75
170	" 31.	Knowlton & Bennett	Paints, oils, etc.	74 00
171	" 31.	J. B. Garvin	Freight charges paid	3 75
171	" 31.	Besore & Thomas	Lumber	82 48
173	" 31.	C. C. C. & St. L. R'y Co.	Freight charges	5 74
174	" 31.	I. C. R. R. Co.	" "	42 07
175	" 31.	Western Union Telegraph Co.	Telegrams	8 32
176	Nov. 15.	S. P. Sutton	Salary, Oct. 18, 1892	100 00
177	" 15.	Robinson & Burr	Labor and materials on a contract	927 88
178	" 15.	H. J. Barton	Stamped envelopes	11 00
179	" 15.	T. J. Burrill	Traveling expenses	16 35
180	" 15.	W. A. Olmsted	Music books	3 00
181	" 15.	S. A. Forbes	Expenses	27 94
182	" 15.	Lilly M. Hart	Drawings	13 05
183	" 15.	J. W. Spalding	Postage	20 00
184	" 15.	W. A. Snow	Traveling expenses	36 50
185	" 15.	A. P. Cunningham	Chemicals, etc.	16 93
186	" 15.	Maltby & Wallace	Fittings and repairs	17 51
187	" 15.	Agricultural department	Expenses, Oct., 1892	361 44
188	" 15.	Technograph	Advertising	10 00
189	" 15.	Western Electric Co.	Wires, etc.	8 50
190	" 15.	Goodyear Rubber Co.	Rubber tubing	4 80
191	" 15.	Clara E. Cummings	N. A. Lichens	3 10
192	" 15.	Hessling & Spielmyer	Architectural books	15 00
193	" 15.	Estes & Lauriat	Books	19 50
194	" 15.	Graphic Company	Copies of the Graphic	35 00
195	" 15.	The Pacific Express Co.	Freight charges	9 60
196	" 15.	American Express Co.	" "	18 25
197	" 15.	C. C. C. & St. L. R'y Co.	" "	19 28
198	" 15.	Illinois Central R. R.	" "	128 76
199	" 15.	Pay-roll of men, October, 1892	Labor	246 97
200	" 15.	Pay-roll of students, Oct., 1892	" "	149 38
201	" 30.	T. J. Burrill	Salary for November 18, 1892	250 00
202	" 30.	S. W. Shattuck	" "	166 66
203	" 30.	E. Snyder	" "	166 66
204	" 30.	N. C. Ricker	" "	166 66
205	" 30.	J. D. Crawford	" "	166 66
206	" 30.	G. E. Morrow	" "	108 33
207	" 30.	I. O. Baker	" "	166 66
208	" 30.	S. A. Forbes	" "	83 33
209	" 30.	J. H. Brownee	" "	166 66
210	" 30.	C. W. Rolfe	" "	166 66
211	" 30.	D. McIntosh	" "	150 00
212	" 30.	A. N. Talbot	" "	166 66
213	" 30.	A. W. Palmer	" "	159 00
214	" 30.	F. F. Frederick	" "	150 00
215	" 30.	S. W. Parr	" "	150 00
216	" 30.	M. R. Paradis	" "	150 00

*List of Warrants—Continued.*

No.	Date.	To whom.	For what.	Amount.
	1892.			
217	Nov. 30	H. J. Barton.....	" "	\$166 66
218	" 30	Chas. M. Moss.....	" "	150 00
219	" 30	W. J. Baldwin.....	" "	133 33
220	" 30	C. W. Scribner.....	" "	196 66
221	" 30	D. K. Dodge.....	" "	166 66
222	" 30	G. W. Myers.....	" "	100 00
223	" 30	Katharine Merrill.....	" "	100 00
224	" 30	D. W. Shea.....	" "	150 00
225	" 30	W. O. Krohn.....	" "	150 00
226	" 30	G. W. Parker.....	" "	115 00
227	" 30	R. Anderson.....	" "	133 33
228	" 30	E. K. Hall.....	" "	100 00
229	" 30	H. S. Brode.....	" "	100 00
230	" 30	J. M. White.....	" "	100 00
231	" 30	Edith A. Shattuck.....	" "	60 00
232	" 30	T. A. Clark.....	" "	75 00
233	" 30	R. H. Forbes.....	" "	75 00
234	" 30	C. D. McLane.....	" "	75 00
235	" 30	F. D. Gardner.....	" "	37 50
236	" 30	W. E. Sandford.....	" "	60 00
237	" 30	W. D. Pence.....	" "	30 00
238	" 30	J. D. Thompson.....	" "	75 00
239	" 30	A. L. Kuehmstedt.....	" "	100 00
240	" 30	Alice M. Barber.....	" "	40 00
241	" 30	H. S. Platt.....	" "	40 00
242	" 30	C. B. Clark.....	" "	75 00
243	" 30	H. E. Parker.....	" "	30 00
244	" 30	W. L. Pillsbury.....	" "	41 66
245	" 30	Cleaves Bennett.....	" "	85 00
246	" 30	Grace Peabody.....	" "	45 00
247	" 30	S. W. Shattuck.....	Salary 3 months to date.....	150 00
248	" 30	A. B. Baker.....	Salary for November 18, 1892.....	70 00
249	" 30	H. Jenkins.....	" "	50 00
250	" 30	L. W. Waldon.....	" "	25 00
251	" 30	A. Iten.....	" "	25 00
252	" 30	C. A. Herme.....	" "	30 00
253	" 30	L. G. Lathrop.....	" "	30 00
254	" 30	John Marten.....	" "	83 33
255	" 30	Mary J. Snyder.....	" "	62 50
256	" 30	Alex. McLean.....	Expense to board meeting.....	24 48
257	" 30	W. W. Clemens.....	" "	19 00
258	" 30	David S. Jordan.....	Expense to dedication N. H. H.....	177 50
259	" 30	W. Trelease.....	" "	10 00
260	" 30	N. H. Winchell.....	" "	32 00
261	" 30	D. Pazschke.....	Rabenhorst's Fungi Europaei.....	4 75
262	" 30	Annie C. Matthews.....	Microscope and accessories.....	280 00
263	" 30	V. Jobst.....	Contract on Nat. Hist. Hall.....	5,351 61
264	" 30	Robinson & Burr.....	On boiler contract.....	301 20
265	" 30	E. G. Close.....	Book.....	3 49
266	" 30	E. Sevalle.....	Subscription.....	2 25
267	" 30	R. Friedlander & Son.....	Books and periodicals.....	187 36
268	" 30	Rolla P. Currie.....	Birds for University Museum.....	2 15
269	" 30	F. E. Eubeling.....	Pincers.....	4 50
270	" 30	Fuller, Fuller & Co.....	Bottles, acids, etc.....	69 44
271	" 30	A. C. McClurg & Co.....	Books.....	208 00
272	" 30	McIntosh Battery Co.....	Electric supplies.....	9 68
273	" 30	E. S. Ritchie & Son.....	Physical apparatus.....	80 22
274	" 30	Richard King & Co.....	Chemical supplies.....	109 38
275	" 30	W. & L. E. Gurley.....	Compass, sockets, etc.....	6 50
276	" 30	Henry Trevett.....	Hardware.....	404 53
277	" 30	Odin Coal Co.....	Coal.....	109 53
278	" 30	Sheldon Brick Co.....	Brick.....	32 60
279	" 30	Hamilton & Russell.....	Hardware.....	8 37
280	" 30	T. R. White, Jr.....	Gas, October and November, 1892.....	234 60
281	" 30	Engineering News Pub. Co.....	Advertising.....	6 88
282	" 30	The <i>Illini</i> .....	Advertising and subscription.....	110 00
283	" 30	Asso. of Am. Agr'l Col. & Ex. St.....	Membership fee.....	10 00
284	" 30	Schumacher Gymnasium Co.....	Apparatus.....	21 75
285	" 30	Narragansett Machine Co.....	Gymnasium apparatus.....	84 00
286	" 30	G. N. Carozzi.....	Salary to Dec. 1, 1892.....	30 00
287	" 30	Crane Company.....	Fittings.....	23 81
288	" 30	Richards & Co.....	Chemical apparatus.....	14 69
289	" 30	Jas. W. Queen & Co.....	Chemical apparatus.....	298 31
290	" 30	Pantagraph Printing Co.....	Binding.....	7 50
291	" 30	Besore & Thomas.....	Lumber.....	114 05
292	" 30	Bliss, Bullard & Gormley.....	Hardware.....	113 87
293	" 30	Blair Camera Company.....	Paper.....	14 91

*List of Warrants—Continued.*

No.	Date.	To whom.	For what.	Amount.
1892.				
294	Nov. 30	J. W. Spalding.	Postage.	\$49 00
295	" 30	S. A. Forbes.	Expenses.	24 43
296	" 30	John Marten.	"	20 32
297	" 30	S. P. Sutton.	Salary, November, 1892.	100 00
298	" 30	Ill. Cent. R. R. Co.	Freight charges.	148 16
299	" 30	Mechanical department.	Labor, material, and power.	184 61
300	" 30	Agricultural department.	"	1,230 55
301	Dec. 15	Robinson & Burr.	Labor and material on contracts.	668 39
302	" 15	S. A. Bullard.	Expenses.	39 31
303	" 15	Alex. McLean.	"	21 65
304	" 15	LaFayette Fink.	"	5 90
305	" 15	N. W. Graham.	"	31 14
306	" 15	Oscar F. Spaulding.	Hotel charges.	6 50
307	" 15	V. Jobst.	Balance on contract.	1,065 08
308	" 15	John W. Bunn.	Premium on bonds and accrued int.	180 00
309	" 15	G. W. McCluer.	Expenses.	52 95
310	" 15	Goodyear Rubber Co.	Hose.	20 00
311	" 15	H. T. Sperry & Son.	Insurance.	23 47
312	" 15	J. W. Spalding.	Postage.	15 00
313	" 15	Pacific Express Co.	Freight charges.	4 45
314	" 15	Western Union Telegraph Co.	Telegram charges.	7 66
315	" 15	National Meter Co.	Meter connections.	32 00
316	" 15	Lyon & Healy.	Music.	4 93
317	" 15	Electrical Supply Co.	Lamps, etc.	5 49
318	" 15	H. B. Rowe.	Music.	5 00
319	" 15	F. K. Robeson & Bros.	Toweling, etc.	3 85
320	" 15	Liquid Carbonic Acid Mfg. Co.	Acids.	4 00
321	" 15	C. C. C. & St. L. Ry. Co.	Freight charges.	11 73
322	" 15	J. C. Vaughan.	Greenhouse stock.	14 20
323	" 15	Agricultural department, U. of I.	Expenses, November, 1892.	309 98
324	" 15	Pay-rolls of men, November, 1892.	Labor.	224 40
325	" 15	Pay-rolls of students, Nov., 1892.	"	224 97
326	" 31	T. J. Burrill.	Salary for December, 1892.	250 00
327	" 31	S. W. Shattuck.	"	166 66
328	" 31	E. Snyder.	"	166 66
329	" 31	N. C. Ricker.	"	166 66
330	" 31	J. D. Crawford.	"	166 66
331	" 31	G. E. Morrow.	"	108 33
332	" 31	I. O. Baker.	"	166 66
333	" 31	S. A. Forbes.	"	83 33
334	" 31	J. H. Brownlee.	"	166 66
335	" 31	C. W. Rolfe.	"	166 66
336	" 31	D. McIntosh.	"	150 00
337	" 31	A. N. Talbot.	"	166 66
338	" 31	A. W. Palmer.	"	150 00
339	" 31	F. F. Frederick.	"	150 00
340	" 31	S. W. Parr.	"	150 00
341	" 31	M. R. Paradis.	"	150 00
342	" 31	H. J. Barton.	"	166 66
343	" 31	Chas. M. Moss.	"	150 00
344	" 31	W. J. Baldwin.	"	133 33
345	" 31	C. W. Scribner.	"	166 66
346	" 31	D. K. Dodge.	"	166 66
347	" 31	G. W. Myers.	"	100 00
348	" 31	Katharine Merrill.	"	100 00
349	" 31	D. W. Shea.	"	150 00
350	" 31	W. O. Krohn.	"	150 00
351	" 31	G. W. Parker.	"	115 00
352	" 31	R. Anderson.	"	133 33
353	" 31	E. K. Hall.	"	100 00
354	" 31	H. S. Brode.	"	100 00
355	" 31	J. M. White.	"	100 00
356	" 31	Edith A. Shattuck.	"	60 00
357	" 31	T. A. Clark.	"	75 00
358	" 31	R. H. Forbes.	"	75 00
359	" 31	C. D. McLane.	"	75 00
360	" 31	F. D. Gardner.	"	37 50
361	" 31	W. E. Sandford.	"	60 00
362	" 31	W. D. Pence.	"	30 00
363	" 31	J. G. Thompson.	"	75 00
364	" 31	A. L. Kuehmsted.	"	100 00
365	" 31	Alice M. Barber.	"	40 00
366	" 31	H. S. Platt.	"	40 00
367	" 31	C. B. Clark.	"	75 00
368	" 31	H. E. Parker.	"	30 00
369	" 31	W. L. Pillsbury.	"	41 66
370	" 31	Cleaves Bennett.	"	85 00
371	" 31	Grace Peabody.	"	40 00

*List of Warrants—Continued.*

No.	Date.	To whom.	For what.	Amount.
	1892.			
372	Dec. 31.	A. B. Baker.	Salary for December, 1892.	\$70 00
373	" 31.	H. Jeakins.	" "	50 00
374	" 31.	L. H. Walden.	" "	25 00
375	" 31.	A. Iten.	" "	25 00
376	" 31.	C. A. Herme.	" "	30 00
377	" 31.	L. G. Lathrop.	" "	35 00
378	" 31.	John Marten.	" "	83 33
379	" 31.	Mary J. Snyder.	" "	62 50
380	" 31.	H. C. Forbes.	October and November, 1892.	166 66
381	" 31.	E. H. Sargent.	Laboratory supplies.	38 62
382	" 31.	Southwick & Critchley.	Insect pins, etc.	46 21
383	" 31.	McDonnell Bros.	Century Dictionary.	90 00
384	" 31.	Art Publishing Co.	Diagram cut.	3 04
385	" 31.	S. R. Roberts.	Manual conchology.	18 00
386	" 31.	American Express Co.	Express charges.	5 50
387	" 31.	W. E. Saunders.	Insect pins.	2 09
388	" 31.	McMillar & Co.	Books.	16 77
389	" 31.	G. C. Willis.	Toweling, etc.	12 21
390	" 31.	J. Bishop & Co.	Platinum repairs.	5 48
391	" 31.	Thos. H. Trevett.	Hardware.	3 53
392	" 31.	E. C. Smith.	Calipers.	32 40
393	" 31.	Academy of Nat. Sciences of Phila.	Journal.	2 50
394	" 31.	A. C. McClurg & Co.	Books.	60 55
395	" 31.	Western Electric Co.	Electrical supplies.	32 90
396	" 31.	Thomas Meter Co.	Meter.	22 00
397	" 31.	E. Henry.	Oil, lead, etc.	143 60
398	" 31.	R. C. Wilber.	Drayage.	58 75
399	" 31.	S. A. Bullard.	Amount paid for estimates and plans.	90 00
400	" 31.	N. C. Ricker.	Architect's fees.	250 00
401	" 31.	T. J. Burrill.	Balance on salary.	166 66
402	" 31.	McIntosh Battery and Optical Co.	Apparatus and supplies.	73 20
403	" 31.	Kenyon News and Postal Subs. Co.	Subscription.	389 40
404	" 31.	Illinois Central R. R. Co.	Freight charges.	112 21
405	" 31.	James M. White.	Photograph.	1 75
406	" 31.	J. W. Spalding.	Postage.	15 00
407	" 31.	S. A. Forbes.	Expenses.	42 63
408	" 31.	Lilly M. Hart.	Drawing.	6 80
409	" 31.	Fuller & Fuller Co.	Glass chemicals.	35 50
410	" 31.	R. H. Forbes.	Blank books, etc.	1 90
	1893.			
411	Jan. 16.	S. P. Sutton.	Salary, December, 1892.	100 00
412	" 16.	Lilly M. Hart.	Drawings.	13 00
413	" 16.	Ginn & Co.	Journal of Morphology.	18 00
414	" 16.	H. Chester.	Hack hire.	2 00
415	" 16.	J. D. Crawford.	Expenses.	10 70
416	" 16.	C. H. Blackall.	Expense, lecture before Eng. Coll.	50 00
417	" 16.	Central Union Telephone Co.	Rent of instrument, 3 mo., Mch. 18, '93.	15 00
418	" 16.	Horns' Coalery Co.	Coal.	222 33
419	" 16.	Illinois Central R. R. Co.	Freight charges.	197 94
420	" 16.	J. W. Spalding.	Postage.	34 10
421	" 16.	S. W. Shattuck.	Petty expenses, 6 mo., Dec. 1, 1892.	59 11
422	" 16.	Central Union Telephone Co.	Rent of instrument, 3 mo., Dec., 1892.	15 00
423	" 16.	Agricultural department, U. of I.	Expenses, December, 1892.	162 10
424	" 16.	Pay-rolls of men, Dec., 1892.	Labor.	251 80
425	" 16.	Pay-rolls of students, Dec., 1892.	" "	176 88
426	" 31.	T. J. Burrill.	Salary for January, 1893.	266 66
427	" 31.	S. W. Shattuck.	" "	166 66
428	" 31.	E. Snyder.	" "	166 66
429	" 31.	N. C. Ricker.	" "	166 66
430	" 31.	J. D. Crawford.	" "	166 66
431	" 31.	G. E. Morrow.	" "	108 33
432	" 31.	I. O. Baker.	" "	166 66
433	" 31.	S. A. Forbes.	" "	83 33
434	" 31.	J. H. Brownlee.	" "	166 66
435	" 31.	C. W. Rolfe.	" "	166 66
436	" 31.	D. McIntosh.	" "	150 00
437	" 31.	A. N. Talbot.	" "	166 60
438	" 31.	A. W. Palmer.	" "	150 00
439	" 31.	F. F. Frederick.	" "	150 00
440	" 31.	S. W. Barr.	" "	150 00
441	" 31.	M. R. Paradis.	" "	150 00
442	" 31.	H. J. Barton.	" "	166 66
443	" 31.	Chas. M. Moss.	" "	150 00
444	" 31.	W. J. Baldwin.	" "	133 33
445	" 31.	C. W. Scribner.	" "	166 66
446	" 31.	D. K. Dodge.	" "	166 66
447	" 31.	G. W. Myers.	" "	100 00
448	" 31.	Katharine Merrill.	" "	100 00



*List of Warrants—Continued.*

No.	Date.	To whom.	For what.	Amount.
	1893.			
449	Jan. 31.	D. W. Shea	Salary for January, 1893.	\$150 00
450	" 31.	W. O. Krohn	" "	150 00
451	" 31.	G. W. Parker	" "	115 00
452	" 31.	R. Anderson	" "	133 33
453	" 31.	E. K. Hall	" "	100 00
454	" 31.	H. S. Brode	" "	100 00
455	" 31.	J. M. White	" "	100 00
456	" 31.	Edith A. Shattuck	" "	60 00
457	" 31.	T. A. Clark	" "	75 00
458	" 31.	R. H. Forbes	" "	75 00
459	" 31.	C. D. McLane	" "	75 00
460	" 31.	F. D. Gardner	" "	87 50
461	" 31.	W. E. Sandford	" "	60 00
462	" 31.	W. D. Pence	" "	30 00
463	" 31.	J. G. Thompson	" "	75 00
464	" 31.	A. L. Kuehmsted	" "	100 00
465	" 31.	Alice M. Barber	" "	40 00
466	" 31.	H. S. Piatt	" "	40 00
467	" 31.	C. E. Clark	" "	75 00
468	" 31.	H. E. Parker	" "	30 00
469	" 31.	W. L. Pillsbury	" "	41 66
470	" 31.	Cleaves Bennett	" "	85 00
471	" 31.	Grace Peabody	" "	45 00
472	" 31.	A. B. Baker	" "	70 00
473	" 31.	H. Jeakins	" "	50 00
474	" 31.	L. M. Waldon	" "	25 00
475	" 31.	A. Iten	" "	25 00
476	" 31.	C. A. Herme	" "	30 00
477	" 31.	L. G. Lathrop	" "	35 00
478	" 31.	John Marten	" "	83 33
479	" 31.	Mary J. Snyder	" "	62 50
480	" 31.	Crane Company	Pipe and fittings.	13 79
481	" 31.	N. W. Davis	Sand and gravel.	7 43
482	" 31.	Oscar Miller	Hardware.	3 70
483	" 31.	Illinois Malleable Iron Co.	Iron.	7 49
484	" 31.	T. R. White	Gas, December 1892.	128 00
485	" 31.	Odin Coal Co.	Coal.	97 06
486	" 31.	A. M. Coffen	" "	11 85
487	" 31.	Public School Pub. Co.	Advertising.	6 00
488	" 31.	C. C. C. St. L. Ry. Co.	Freightage.	11 47
489	" 31.	D. A. Stuart & Co.	Oil.	45 82
490	" 31.	G. C. Miller	Blue prints.	25 45
491	" 31.	Besore & Thomas	Lumber.	92 70
492	" 31.	J. Hamilton	" "	38 07
493	" 31.	L. W. Faulkner	Oil, paints, etc.	56 96
494	" 31.	Richard Kny & Co.	Chemical apparatus.	216 48
495	" 31.	Star Crescent Distillery.	Alcohol.	20 92
496	" 31.	D. L. Roots & Son.	Lumber.	4 50
497	" 31.	Bausch Lomb Optical Co.	Mailing boxes.	3 00
498	" 31.	Oziras Riley	Tuning pianos.	5 50
499	" 31.	Hektograph Mfg. Co.	Refilling hektograph.	2 50
500	" 31.	T. J. Burrill	Expenses.	2 50
501	" 31.	Robinson & Burr	Labor and material on contract.	2,017 45
502	" 31.	Aberdeth & Root Mfg. Co.	Gaskets, etc.	90 50
503	" 31.	F. P. Smith Wire & Iron Works.	Wire cloth.	9 00
504	" 31.	Crowder Bros.	Rocking grates.	85 80
505	" 31.	Robinson & Burr	Repairs, etc.	12 19
506	" 31.	Hubbard & Sons.	" "	10 75
507	" 31.	Brickbuilder Publishing Co.	Subscription.	4 00
508	" 31.	Ticknor & Co.	" "	25 00
509	" 31.	Frost & Adams	Plates.	2 32
510	" 31.	P. P. Carponi & Bros.	Models.	12 23
511	" 31.	A. P. Cunningham	Chemical supplies.	31 38
512	" 31.	Jones & Laughlins, Lmtd.	Steel.	56 12
513	" 31.	Goodyear Rubber Co.	Rubber tubing.	5 18
514	" 31.	McIntosh Battery & Optical Co.	Electrical supplies.	61 49
515	" 31.	W. O. Krohn	Postage.	6 22
516	" 31.	S. C. Johnson	Lumber.	9 00
517	" 31.	Franklin Educational Co.	Test tubes.	1 35
518	" 31.	I. O. Baker	Expenses.	4 96
519	" 31.	Union Mfg. Co.	Water, 3 months, to Dec. 31, 1892.	100 00
520	" 31.	Robinson & Burr	Labor and material on contract.	239 00
521	" 31.	Hamilton & Russell	Tools.	34 20
522	" 31.	C. M. Moss	Expenses.	7 03
523	" 31.	Chas. Scribners' Sons.	Books.	2 59
524	" 31.	Oscar Miller	Hardware.	3 85
525	" 31.	A. C. McClurg & Co.	Book supports.	6 48

*List of Warrants—Continued.*

No.	Date.	To whom.	For what.	Amount.
	1893.			
526	Feb. 15....	R. W. Hunt.....	Lecture before College of Engineering.	\$50 00
527	" 15....	A. E. Hunt.....	" " " "	50 00
528	" 15....	L. E. Cooley.....	" " " "	50 00
529	" 15....	D. J. Snyder.....	Lectures " " Literature..	81 50
530	" 15....	S. P. Sutton.....	Salary, January, 1893.....	100 00
531	" 15....	W. L. Pillsbury.....	Expense of board meeting.....	9 10
532	" 15....	J. W. Spalding.....	Postage.....	35 00
533	" 15....	A. Barr.....	Sawdust.....	1 75
534	" 15....	Pacific Express Co.....	Expressage.....	9 40
535	" 15....	American Express Co.....	" " " "	32 59
536	" 15....	Wabash R. R. Co.....	Freightage.....	186 60
537	" 15....	Ill. Cent. R. R. Co.....	" " " "	508 59
538	" 15....	Henrietta Meyer.....	Instruction in music.....	6 25
539	" 15....	C. W. Scribner.....	Expenses to Springfield.....	6 49
540	" 15....	H. J. Barton.....	Expenses visiting schools.....	23 38
541	" 15....	J. H. Brownlee.....	" " " "	32 70
542	" 15....	W. O. Krohn.....	" " " "	20 89
543	" 15....	H. B. Rowe.....	Music.....	15 50
544	" 15....	H. C. Forbes.....	Expense of moving.....	21 68
545	" 15....	G. Napoleone Carozzi.....	Music fees.....	72 90
546	" 15....	B. F. Stevens.....	Books.....	6 56
547	" 15....	Mrs. Stanley Potter.....	Wax fruits.....	36 00
548	" 15....	Agricultural department.....	Expenses, January, 1893.....	106 27
549	" 15....	Pay-roll of men.....	Labor, January, 1893.....	426 01
550	" 15....	Pay-roll of students.....	" " " "	171 64
551	Feb. 28....	T. J. Burrill.....	Salary for February, 1893.....	286 66
552	" 28....	S. W. Shattuck.....	" " " "	166 66
553	" 28....	E. Snyder.....	" " " "	166 66
554	" 28....	N. C. Ricker.....	" " " "	166 66
555	" 28....	J. D. Crawford.....	" " " "	166 66
556	" 28....	G. E. Morrow.....	" " " "	108 33
557	" 28....	I. O. Baker.....	" " " "	166 66
558	" 28....	S. A. Forbes.....	" " " "	83 33
559	" 28....	J. H. Brownlee.....	" " " "	166 66
560	" 28....	C. W. Rolfe.....	" " " "	166 66
561	" 28....	D. McIntosh.....	" " " "	150 00
562	" 28....	A. N. Talbot.....	" " " "	166 66
563	" 28....	A. W. Palmer.....	" " " "	150 00
564	" 28....	F. F. Frederick.....	" " " "	150 00
565	" 28....	S. W. Parr.....	" " " "	150 00
566	" 28....	M. R. Paradis.....	" " " "	150 00
567	" 28....	H. J. Barton.....	" " " "	166 66
568	" 28....	Chas. M. Moss.....	" " " "	150 00
569	" 28....	W. J. Baldwin.....	" " " "	133 33
570	" 28....	C. W. Scribner.....	" " " "	166 66
571	" 28....	D. K. Dodge.....	" " " "	166 66
572	" 28....	G. W. Myers.....	" " " "	100 00
573	" 28....	Katharine Merrill.....	" " " "	100 00
574	" 28....	D. W. Shea.....	" " " "	150 00
575	" 28....	W. O. Krohn.....	" " " "	150 00
576	" 28....	G. W. Parker.....	" " " "	115 00
577	" 28....	R. Anderson.....	" " " "	132 33
578	" 28....	E. K. Hall.....	" " " "	100 00
579	" 28....	H. S. Brode.....	" " " "	100 00
580	" 28....	J. M. White.....	" " " "	100 00
581	" 28....	Edith A. Shattuck.....	" " " "	60 00
582	" 28....	T. A. Clark.....	" " " "	75 00
583	" 28....	R. H. Forbes.....	" " " "	75 00
584	" 28....	C. D. McLane.....	" " " "	75 00
585	" 28....	F. D. Gardner.....	" " " "	37 50
586	" 28....	W. E. Sandford.....	" " " "	60 00
587	" 28....	W. D. Pence.....	" " " "	30 00
588	" 28....	J. G. Thompson.....	" " " "	75 00
589	" 28....	A. L. Kuehstedt.....	" " " "	100 00
590	" 28....	Alice M. Barber.....	" " " "	40 00
591	" 28....	H. S. Piatt.....	" " " "	40 00
592	" 28....	C. B. Clark.....	" " " "	75 00
593	" 28....	H. E. Parker.....	" " " "	30 00
594	" 28....	W. L. Pillsbury.....	" " " "	41 66
595	" 28....	Cleaves Bennett.....	" " " "	85 00
596	" 28....	Grace Peabody.....	" " " "	45 00
597	" 28....	S. W. Shattuck.....	" " " "	150 00
598	" 28....	A. B. Baker.....	3 months to date.....	70 00
599	" 28....	H. Jenkins.....	for February, 1893.....	50 00
600	" 28....	L. H. Walden.....	" " " "	25 00
601	" 28....	A. Iten.....	" " " "	25 00
602	" 28....	C. A. Herme.....	" " " "	30 00
603	" 28....	L. G. Lathrop.....	" " " "	35 00

*List of Warrants—Continued.*

No.	Date.	To whom.	For what.	Amount.
	1893.			
604	" 28	Joe Morrow.....	Salary for February, 1893.....	\$60 00
605	" 28	John Marten.....	" ".....	83 33
606	" 28	Mary J. Snyder.....	" ".....	62 50
607	" 28	C. J. Sabin.....	Coal.....	3 30
608	" 28	Lilly M. Hart.....	Making drawings.....	10 50
609	" 28	Entomological News.....	Subscription.....	1 00
610	" 28	John B. Smith.....	Books.....	7 00
611	" 28	Nat'l Ry. Publication Co.....	Subscription.....	5 00
612	" 28	Geo. B. Cresson.....	Book.....	1 00
613	" 28	Ginn & Co.....	Subscription.....	3 00
614	" 28	Eugene Dietzgen Co.....	Paper.....	11 31
615	" 28	Barton Society Natural History.....	Proceedings.....	8 00
616	" 28	Odin Coal Co.....	Coal.....	311 22
617	" 28	W. C. Vosburgh Mfg. Co.....	Gas fixtures.....	299 00
618	" 28	Geo. B. Carpenter Co.....	Wagon duck.....	22 50
619	" 28	Fuller & Fuller Co.....	Pharmacist supplies, etc.....	63 53
620	" 28	W. C. Lane, treasurer.....	Library index.....	5 00
621	" 28	Eichberg & Baer.....	Matting, etc.....	30 60
622	" 28	Chicago Carpet Co.....	Mats.....	17 85
623	" 28	Lyon & Healy.....	Music.....	2 63
624	" 28	E. O. Valie.....	Directory.....	1 00
625	" 28	Stearns Lime & Stone Co.....	Plaster.....	2 50
626	" 28	Horns' Coalery Co.....	Coal.....	171 52
627	" 28	Riverton Coal Co.....	" ".....	225 00
628	" 28	T. R. White.....	Gas, January, 1893.....	106 00
629	" 28	Pantagraph Printing Co.....	Class records.....	2 70
630	" 28	Yale Town Mfg. Co.....	Key blanks.....	3 26
631	" 28	Wm. Price.....	Glass, etc.....	11 21
632	" 28	Goodyear Rubber Co.....	Rubber tubing.....	2 57
633	" 28	Richards & Co.....	Chemical supplies.....	20 09
634	" 28	J. M. Everhart.....	Laboratory supplies.....	43 09
635	" 28	McIntosh Battery & Optical Co.....	Electrical supplies.....	52 71
636	" 28	D. H. Lloyd & Son.....	Stationery, etc.....	27 80
637	" 28	H. C. Forbes.....	Expense of moving.....	68 93
638	" 28	J. W. Spalding.....	Postage stamps.....	10 00
639	" 28	W. W. Lindley.....	" ".....	18 00
640	" 28	F. M. McKay.....	Expense to board meeting.....	40 00
641	" 28	H. W. Mabie.....	Lecture fee.....	100 00
642	" 28	C. M. Moss.....	Paid for photographs.....	67 20
643	" 28	C. W. Rolfe.....	Paid for towels.....	1 50
644	" 28	C. A. Elder.....	Salary fall term, 1892.....	15 00
645	" 28	Ill. Cent. R. R. Co.....	Freightage.....	246 74
646	" 28	Brown Sharpe Mfg. Co.....	Micrometer calipers.....	5 47
647	" 28	Athol Machine Co.....	Caliper gauge.....	4 00
648	" 28	E. C. Smith.....	Sliding calipers.....	2 70
649	" 28	A. L. Ide & Son.....	Safety cups.....	6 00
650	" 28	Vacuum Oil Co.....	Oil.....	5 00
651	Feb. 28	Walker & Mulliken.....	Moulding stools, etc.....	16 95
652	" 28	Narragansett Machine Co.....	Gymnasium apparatus.....	54 15
653	" 28	Illinois Malleable Iron Co.....	Pipe fittings, etc.....	71 00
654	" 28	Abendroth & Root Mfg. Co.....	Tubes etc.....	39 10
655	" 28	A. B. Dick Co.....	Paper.....	3 60
656	" 28	McIntosh Battery & Optical Co.....	Thermometers.....	59 00
657	" 28	A. C. McClurg & Co.....	Books.....	145 12
658	" 28	Fuller & Fuller Co.....	Glass.....	31 45
659	" 28	Southwick & Critchley.....	Cork.....	3 00
660	" 28	Keen & DeLang.....	Envelopes, etc.....	2 70
661	" 28	Jones & Laughlins, Ltd.....	Iron.....	15 28
662	" 28	Patterson Bros.....	Tubing.....	2 98
663	" 28	Macomb Stonew're & Terra Cotta.....	Clay.....	4 65
664	" 28	R. S. Wilber.....	Drayage.....	313 40
665	" 28	H. H. Scurlock.....	Map of Urbana.....	2 50
666	" 28	Engineering News Pub. Co.....	Advertising.....	6 88
667	" 28	Pacific Express Co.....	Expressage.....	2 15
668	" 28	Robinson & Burr.....	Heating contract, etc.....	477 93
669	" 28	Henry Trevett.....	Hardware.....	162 08
670	" 28	Western Electric Co.....	Electric supplies.....	65 53
671	" 28	The Gazette.....	Printing, etc.....	386 16
672	" 28	S. P. Sutton.....	Salary February, 1893.....	100 00
673	" 28	Architectural department U. of I.....	Labor, materials, etc.....	289 56
674	" 28	Architectural department U. of I.....	" ".....	335 24
675	" 28	Mechanical department U. of I.....	" ".....	293 64
676	Mar. 16	Robinson & Burr.....	Labor and material on contract.....	612 31
677	" 16	N. W. Graham.....	Expenses attending board and com.....	85 87
678	" 16	Emory Cobb.....	Expenses attending board meeting.....	16 50
679	" 16	Alex. McLean.....	" ".....	23 63
680	" 16	S. A. Ballard.....	" ".....	42 10

*List of Warrants—Continued.*

No.	Date.	To whom.	For what	Amount.
	1893.			
681	Mch. 16.	Henry Raab.....	Expenses attending board meeting....	\$12 00
682	" 16.	David Gore.....	" " " " " " " "	2 65
683	" 16.	N. B. Morrison.....	" " " " " " " "	41 75
684	" 16.	R. P. Morgan.....	" " " " " " and com....	69 64
685	" 16.	F. M. McKay.....	" " " " " " meeting....	16 75
686	" 16.	Isaac S. Raymond.....	" " " " " " " "	12 90
687	" 16.	J. D. Crawford.....	Expenses visiting schools.....	4 75
688	" 16.	A. W. Palmer.....	" " " " " " " "	27 69
689	" 16.	W. W. Lindley.....	Postage.....	18 00
690	" 16.	Agricultural department U. of I.	Expenses, February, 1893.....	173 50
691	" 16.	Pay roll of men, Feb., '93.	Labor.....	431 44
692	" 16.	Pay roll of students, Feb., '93.	" " " " " " " "	118 55
693	" 16.	A. J. Stoneburner.....	Salary, March, 1893.....	25 00
694	" 16.	Western Electric Co.....	Lamps, etc.....	20 55
695	" 16.	H. C. Forbes.....	Salary 3 months to March, 1893....	249 99
696	" 31.	John Marten.....	Salary for March, 1893.....	83 33
697	" 31.	Mary J. Snyder.....	" " " " " " " "	62 50
698	" 31.	W. L. Pillsbury.....	" " " " " " " "	41 66
699	" 31.	Cleaves Bennett.....	" " " " " " " "	85 00
700	" 31.	Grace Peabody.....	" " " " " " " "	45 00
701	" 31.	T. J. Burrill.....	" " " " " " " "	266 66
702	" 31.	S. W. Shattuck.....	" " " " " " " "	166 66
703	" 31.	E. Snyder.....	" " " " " " " "	166 66
704	" 31.	N. C. Rucker.....	" " " " " " " "	166 66
705	" 31.	J. D. Crawford.....	" " " " " " " "	166 66
706	" 31.	G. E. Morrow.....	" " " " " " " "	108 33
707	" 31.	I. O. Baker.....	" " " " " " " "	166 66
708	" 31.	S. A. Forbes.....	" " " " " " " "	83 33
709	" 31.	J. H. Brownlee.....	" " " " " " " "	166 66
710	" 31.	C. W. Roife.....	" " " " " " " "	166 66
711	" 31.	D. McIntosh.....	" " " " " " " "	150 00
712	" 31.	A. N. Talbot.....	" " " " " " " "	166 66
713	" 31.	A. W. Palmer.....	" " " " " " " "	150 00
714	" 31.	F. F. Frederick.....	" " " " " " " "	150 00
715	" 31.	S. W. Parr.....	" " " " " " " "	150 00
716	" 31.	M. R. Paradis.....	" " " " " " " "	150 00
717	" 31.	H. J. Barton.....	" " " " " " " "	166 66
718	" 31.	Chas. M. Moss.....	" " " " " " " "	150 00
719	" 31.	W. J. Baldwin.....	" " " " " " " "	133 33
720	" 31.	C. W. Scribner.....	" " " " " " " "	166 66
721	" 31.	D. K. Dodge.....	" " " " " " " "	166 66
722	" 31.	G. W. Myers.....	" " " " " " " "	100 00
723	" 31.	Katharine Merrill.....	" " " " " " " "	100 00
724	" 31.	D. W. Shea.....	" " " " " " " "	150 00
725	" 31.	W. O. Krohn.....	" " " " " " " "	150 00
726	" 31.	G. W. Parker.....	" " " " " " " "	115 00
727	" 31.	R. Anderson.....	" " " " " " " "	133 33
728	" 31.	E. K. Hall.....	" " " " " " " "	100 00
729	" 31.	H. S. Brode.....	" " " " " " " "	100 00
730	" 31.	J. M. White.....	" " " " " " " "	100 00
731	" 31.	Edith A. Shattuck.....	" " " " " " " "	60 00
732	" 31.	T. A. Clark.....	" " " " " " " "	75 00
733	" 31.	K. H. Forbes.....	" " " " " " " "	75 00
734	" 31.	C. D. McLane.....	" " " " " " " "	75 00
735	" 31.	F. D. Gardner.....	" " " " " " " "	37 50
736	" 31.	W. E. Sandford.....	" " " " " " " "	60 00
737	" 31.	W. D. Pence.....	" " " " " " " "	30 00
738	" 31.	J. G. Thompson.....	" " " " " " " "	75 00
739	" 31.	A. L. Kuehmsted.....	" " " " " " " "	100 00
740	" 31.	Alice M. Barber.....	" " " " " " " "	40 00
741	" 31.	H. S. Piatt.....	" " " " " " " "	40 00
742	" 31.	C. B. Clark.....	" " " " " " " "	75 00
743	" 31.	H. E. Parker.....	" " " " " " " "	30 00
744	" 31.	A. B. Baker.....	" " " " " " " "	70 00
745	" 31.	H. Jeakins.....	" " " " " " " "	50 00
746	" 31.	L. H. Walden.....	" " " " " " " "	25 00
747	" 31.	A. Ilen.....	" " " " " " " "	25 00
748	" 31.	C. A. Herme.....	" " " " " " " "	30 00
749	" 31.	L. G. Lathrop.....	" " " " " " " "	35 00
750	" 31.	Joe Morrow.....	" " " " " " " "	60 00
751	" 31.	Chas. F. Thwing.....	Lecture before college of literature....	50 00
752	" 31.	Chas M. Moss.....	Expenses paid.....	6 25
753	" 31.	C. A. Hart.....	" " " " " " " "	2 75
754	" 31.	Franklin Educational Co.....	Test tubes, etc.....	3 76
755	" 31.	Library Bureau.....	Library supplies.....	6 00
756	" 31.	L. V. Manspeaker.....	Jars, matches, etc.....	25 45
757	" 31.	G. C. Willis.....	Cotton batting, etc.....	16 16

*List of Warrants—Continued.*

No.	Date.	To whom.	For what.	Amount.
	1893.			
758	Mch. 31	P. E. Handford.....	Cigar boxes.....	\$1 92
759	" 31	Lilly M. Hart.....	Drawing work.....	4 25
760	" 31	J. E. Armstrong.....	Expense to board meeting.....	27 30
761	" 31	Fuller & Fuller Co.....	Glass, etc.....	178 74
762	" 31	Henry A. Dreer.....	Greenhouse stock.....	13 00
763	" 31	T. R. White, Jr.....	Gas, February, 1893, and coke.....	91 35
764	" 31	Illinois Malleable Iron Co.....	Pipe, fittings, etc.....	92 88
765	" 31	Crosby Steam Gauge & Valve Co.....	Fittings.....	16 20
766	" 31	McIntosh Battery & Optical Co.....	Tubing, etc.....	6 83
767	" 31	C. H. Besly & Co.....	Hardware.....	44 98
768	" 31	Goodnow & Wightman.....	Tools.....	17 68
769	" 31	John Chatillon & Sons.....	Balances.....	6 75
770	" 31	Carl Schoenhof.....	Books.....	8 63
771	" 31	Horns' Coalery Co.....	Coal.....	146 04
772	" 31	The <i>Illini</i> .....	Subscription and printing.....	116 35
773	" 31	E. Henry.....	Brooms, etc.....	31 98
774	" 31	Fauth & Co.....	Repairing transit.....	42 85
775	" 31	H. W. Rokker.....	Printing.....	623 00
776	Apr. 15	F. M. McKay.....	Expense to board meeting.....	20 25
777	" 15	J. E. Armstrong.....	" ".....	22 74
778	" 15	W. L. Pillsbury.....	" ".....	12 26
779	" 15	T. J. Burrill.....	Expense to Springfield.....	19 08
780	" 15	Central Union Telephone Co.....	Instrument for 3 months, July, 1893.....	15 00
781	" 15	G. N. Carrozi.....	Music fees to date of bill.....	183 25
782	" 15	S. W. Shattuck.....	Petty expense, 3 months, to M'ch, 1893.....	13 39
783	" 15	S. R. Kyle.....	Teaching.....	33 00
784	" 15	W. S. McGee.....	" ".....	87 00
785	" 15	J. R. Willetts.....	Lecture before Engineering College.....	50 00
786	" 15	Samuel Whitney.....	" ".....	50 00
787	" 15	H. C. Forbes.....	Salary, March, 1893.....	83 33
788	" 15	W. A. Swan.....	Cigar boxes.....	1 00
789	" 15	Lilly M. Hart.....	Paint and box.....	2 10
790	" 15	Crescent Distillery.....	Alcohol.....	42 49
791	" 15	American Express Co.....	Expressage.....	48 93
792	" 15	Pacific Express Co.....	" ".....	20 80
793	" 15	Illinois Central R. R. Co.....	Freightage.....	110 38
794	" 15	R. L. Polk & Co.....	Business Directory and advertisement.....	25 00
795	" 15	W. W. Lindley.....	Postage.....	20 00
796	" 15	J. W. Spalding.....	" ".....	46 00
797	" 15	C. A. Dale.....	Building pier.....	15 50
798	" 15	Agricultural department U. of I.....	Expenses, March, 1893.....	156 71
799	" 15	Pay roll of men, March 1893.....	Labor.....	330 52
800	" 15	Pay roll of students, March, 1893.....	" ".....	191 68
801	" 29	T. J. Burrill.....	Salary for April 1893.....	266 66
802	" 29	S. M. Shattuck.....	" ".....	166 66
803	" 29	E. Snyder.....	" ".....	166 66
804	" 29	N. C. Ricker.....	" ".....	166 66
805	" 29	J. D. Crawford.....	" ".....	166 66
806	" 29	G. E. Morrow.....	" ".....	108 33
807	" 29	I. O. Baker.....	" ".....	166 66
808	" 29	S. A. Forbes.....	" ".....	83 33
809	" 29	J. H. Brownlee.....	" ".....	166 66
810	" 29	C. W. Rolfe.....	" ".....	166 66
811	" 29	D. McIntosh.....	" ".....	150 00
812	" 29	A. N. Talbot.....	" ".....	166 66
813	" 29	A. W. Palmer.....	" ".....	150 00
814	" 29	F. F. Frederick.....	" ".....	150 00
815	" 29	S. W. Parr.....	" ".....	150 00
816	" 29	M. R. Paradis.....	" ".....	150 00
817	" 29	H. J. Barton.....	" ".....	166 66
818	" 29	Chas. M. Moss.....	" ".....	150 00
819	" 29	W. J. Baldwin.....	" ".....	133 33
820	" 29	C. W. Scribner.....	" ".....	166 66
821	" 29	D. K. Dodge.....	" ".....	166 66
822	" 29	G. W. Myers.....	" ".....	100 00
823	" 29	Katharine Merrill.....	" ".....	100 00
824	" 29	D. W. Shea.....	" ".....	150 00
825	" 29	W. G. Krohn.....	" ".....	150 00
826	" 29	G. W. Parker.....	" ".....	115 00
827	" 29	R. Anderson.....	" ".....	133 33
828	" 29	E. K. Hall.....	" ".....	100 00
829	" 29	H. S. Brode.....	" ".....	100 00
830	" 29	J. M. White.....	" ".....	100 00
831	" 29	Edith A. Shattuck.....	" ".....	60 00
832	" 29	T. A. Clark.....	" ".....	75 00
833	" 29	R. H. Forbes.....	" ".....	75 00
834	" 29	C. D. McLane.....	" ".....	75 00

*List of Warrants—Continued.*

No.	Date.	To whom.	For whom.	Amount.
835	April 29.	F. D. Gardner.	Salary April 1893.	\$37 50
836	" 29.	W. E. Sandford.	" " "	60 00
837	" 29.	W. D. Pence.	" " "	30 00
838	" 29.	J. G. Thompson.	" " "	75 00
839	" 29.	A. L. Kuehsted.	" " "	100 00
840	" 29.	Alice M. Barber.	" " "	40 00
841	" 29.	H. S. Platt.	" " "	40 00
842	" 29.	C. B. Clark.	" " "	75 00
843	" 29.	H. E. Parker.	" " "	30 00
844	" 29.	G. P. Clinton.	" " "	70 83
845	" 29.	W. L. Pillsbury.	" " "	41 66
846	" 29.	Cleaves Bennett.	" " "	85 00
847	" 29.	Grace Peabody.	" " "	45 00
848	" 29.	A. B. Baker.	" " "	70 00
849	" 29.	The <i>Technograph</i> .	Advertising.	100 00
850	" 29.	L. H. Walden.	Salary for April 1893.	25 00
851	" 29.	A. Iten.	" " "	25 00
852	" 29.	C. A. Herme.	" " "	30 00
853	" 29.	L. G. Lathrop.	" " "	40 00
854	" 29.	Joe Morrow.	" " "	40 00
855	" 29.	A. J. Stoneburner.	" " "	25 00
856	" 29.	John Marten.	" " "	83 33
857	" 29.	Mary J. Snyder.	" " "	62 50
858	" 29.	Ira O. Baker.	Expenses.	3 00
859	" 29.	G. C. Willis.	Toweling, etc.	6 23
860	" 29.	W. H. Beckwith.	Paper.	1 26
861	" 29.	Henry Trevett.	Coal.	25 05
862	" 29.	T. R. White, Jr.	Gas, March, 1893.	122 00
863	" 29.	Champaign Co. Herald.	Printing.	7 00
864	" 29.	G. B. Carpenter.	Flags, manila rope.	6 02
865	" 29.	Thayer, Jackson, Stationery Co.	Paper.	5 00
866	" 29.	Wm. Sim Drug Co.	Curtains.	11 30
867	" 29.	Franklin Educational Co.	Microscope.	399 75
868	" 29.	Jones & Laughlins.	Steel.	16 80
869	" 29.	Hubbard & Son.	Hardware.	14 40
870	" 29.	Public School Publishing Co.	Advertising.	6 00
871	" 29.	Izard & Douglass.	Slides and photos.	3 60
872	" 29.	C. C. C. & St. L. R. R. Co.	Freightage.	11 87
873	" 29.	Western Electric Company.	Switches, wire, etc.	19 56
874	" 29.	A. C. McClurg & Co.	Books.	223 50
875	" 29.	Robinson & Burr.	Labor and material.	257 89
876	May 15.	Percy M. Reese.	Lecture before college of literature.	75 00
877	" 15.	J. D. Crawford.	Expense visiting schools.	6 07
878	" 15.	Eugene Dietzgen & Co.	Steel arrows, etc.	3 70
879	" 15.	C. T. Busch.	Picture frames.	15 45
880	" 15.	The Frasse Company.	Copper wire, etc.	19 78
881	" 15.	Pantagraph Printing Co.	Grass contracts and notes.	6 25
882	" 15.	G. C. Miller.	Paper and blue prints.	15 85
883	" 15.	McBeath & Park.	Crash, etc.	3 45
884	" 15.	American Express Co.	Expressage, etc.	21 90
885	" 15.	The Crane Co.	Water guages.	5 21
886	" 15.	Crosby Steam Guage Co.	Indicator, etc.	59 00
887	" 15.	J. Bishop & Co.	Repairing platinum crucible.	3 35
888	" 15.	Whitall, Tatum & Co.	Bottles.	2 57
889	" 15.	Richards & Co., limited.	Rubber stoppers, etc.	23 23
890	" 15.	F. M. McKay.	Expense to board meeting.	40 87
891	" 15.	J. E. Armstrong.	" " "	13 66
892	" 15.	J. H. Brownlee.	Expense visiting schools.	7 65
893	" 15.	W. O. Krohn.	" " "	32 91
894	" 15.	J. Manz & Co.	Half tone plates and electros.	122 65
895	" 15.	W. H. McElroy.	Lecture before college of literature.	100 00
896	" 15.	Lilly M. Hart.	Drawings and copying.	9 95
897	" 15.	Charles A. Hart.	Salary, April, 1893.	62 50
898	" 15.	Agricultural department, Uni. Ill.	Expenses, April, 1893.	183 70
899	" 15.	Pay-roll of men, April, 1893.	Labor.	401 58
900	" 15.	Pay-roll of students, April, 1893.	" " "	125 78
901	" 31.	T. J. Burrill.	Salary for May, 1893.	266 66
902	" 31.	S. W. Shattuck.	" " "	166 66
903	" 31.	E. Snyder.	" " "	166 66
904	" 31.	N. C. Ricker.	" " "	166 66
905	" 31.	J. D. Crawford.	" " "	166 66
906	" 31.	G. E. Morrow.	" " "	108 33
907	" 31.	I. O. Baker.	" " "	166 66
908	" 31.	S. A. Forbes.	" " "	83 33
909	" 31.	J. H. Brownlee.	" " "	166 66
910	" 31.	C. W. Rolfe.	" " "	166 66
911	" 31.	D. McIntosh.	" " "	150 00
912	" 31.	A. N. Talbot.	" " "	166 66

*List of Warrants—Continued.*

No.	Date.	To whom.	For what.	Amount.
	1893.			
913	May 31	A. W. Palmer.....	Salary for May, 1893.....	\$150 00
914	" 31	F. F. Frederick.....	" ".....	150 00
915	" 31	S. W. Parr.....	" ".....	150 00
916	" 31	M. R. Paradis.....	" ".....	150 00
917	" 31	H. J. Barton.....	" ".....	166 66
918	" 31	Charles M. Moss.....	" ".....	150 00
919	" 31	W. J. Baldwin.....	" ".....	133 33
920	" 31	C. W. Scribner.....	" ".....	166 66
921	" 31	D. K. Dodge.....	" ".....	166 66
922	" 31	G. W. Myers.....	" ".....	100 00
923	" 31	Katharine Merrill.....	" ".....	100 00
924	" 31	D. W. Shea.....	" ".....	150 00
925	" 31	W. O. Krohn.....	" ".....	150 00
926	" 31	G. W. Parker.....	" ".....	115 00
927	" 31	R. Anderson.....	" ".....	133 33
928	" 31	E. K. Hall.....	" ".....	100 00
929	" 31	H. S. Brode.....	" ".....	100 00
930	" 31	J. M. White.....	" ".....	100 00
931	" 31	Edith A. Shattuck.....	" ".....	60 00
932	" 31	T. A. Clark.....	" ".....	75 00
933	" 31	R. H. Forbes.....	" ".....	75 00
934	" 31	C. D. McLane.....	" ".....	75 00
935	" 31	F. D. Gardner.....	" ".....	37 50
936	" 31	W. E. Sandford.....	" ".....	60 00
937	" 31	W. D. Pence.....	" ".....	30 00
938	" 31	J. G. Thompson.....	" ".....	75 00
939	" 31	A. L. Kuehmstedt.....	" ".....	100 00
940	" 31	Alice M. Barber.....	" ".....	40 00
941	" 31	H. S. Piatt.....	" ".....	40 00
942	" 31	C. B. Clark.....	" ".....	75 00
943	" 31	H. E. Parker.....	" ".....	30 00
944	" 31	G. P. Clinton.....	" ".....	70 83
945	" 31	W. L. Pillsbury.....	" ".....	41 66
946	" 31	Cleaves Bennett.....	" ".....	85 00
947	" 31	Grace Peabody.....	" ".....	45 00
948	" 31	S. W. Shattuck.....	Salary, three months, to date.....	150 00
949	" 31	A. B. Baker.....	Salary for May, 1893.....	70 00
950	" 31	L. H. Walden.....	" ".....	25 00
951	" 31	A. Iten.....	" ".....	25 00
952	" 31	C. A. Herme.....	" ".....	30 00
953	" 31	L. G. Lathrop.....	" ".....	40 00
954	" 31	Joe Morrow.....	" ".....	40 00
955	" 31	A. J. Stoneburner.....	" ".....	25 00
956	" 31	John Marten.....	" ".....	83 33
957	" 31	Mary J. Snyder.....	" ".....	62 50
958	" 31	Chas. A. Hart.....	" ".....	62 50
959	" 31	H. C. Forbes.....	" ".....	83 33
960	" 31	E. A. Sargent & Co.....	Corks.....	1 19
961	" 31	J. W. Spalding.....	Postage.....	32 30
962	" 31	Pacific Express Co.....	Expressage.....	9 55
963	" 31	U. S. Express Co.....	" ".....	15 18
964	" 31	Adams Express Co.....	" ".....	7 82
965	" 31	American Express Co.....	" ".....	8 28
966	" 31	H. W. Rokker.....	Stationery.....	47 50
967	" 31	The United States.....	Gun stocks, etc.....	38 10
968	" 31	The Arts.....	Papers.....	18 00
969	" 31	John Conkle.....	Lumber and labor.....	12 68
970	" 31	Hornstein Bros.....	Printing.....	126 17
971	" 31	Thomson Hydraulic Co.....	Complete outfit, etc.....	84 50
972	" 31	Buffalo Scale Co.....	Scales.....	50 00
973	" 31	D. L. Roots & Son.....	Tables.....	12 00
974	" 31	Eastern Electric Light Lt. Batt. Co.....	Cabinets.....	30 50
975	" 31	Henry J. Green & Co.....	Thermometers.....	48 50
976	" 31	Albion W. Small.....	Lecture before college of literature.....	50 00
977	" 31	John W. Cook.....	" ".....	50 00
978	" 31	S. W. Parr.....	Expenses visiting high schools.....	23 12
979	" 31	II. J. Barton.....	" "..... schools.....	25 81
980	" 31	J. D. Crawford.....	" ".....	4 34
981	" 31	Chas. T. Wilder.....	Labor and photographs.....	1 83
982	" 31	Kenyon News & Postal Co.....	Subscriptions.....	11 35
983	" 31	C. H. Baddeley.....	Lamps and chimneys.....	3 50
984	" 31	Thayer & Jackson Stat'y Co.....	Purple ink.....	3 56
985	" 31	A. P. Cunningham & Son.....	Glue, etc.....	1 50
986	" 31	A. H. Abbott & Co.....	Picture mats.....	7 20
987	" 31	D. H. Lloyd & Son.....	Books.....	10 50
988	" 31	C. H. Besley & Co.....	Hardware.....	1 09
989	" 31	Vacuum Oil Co.....	Oil.....	3 75

*List of Warrants—Continued.*

No.	Date.	To whom.	For what.	Amount.
1893.				
990	May 31	Bacon, Mittendorf & Hall	Picture frames, etc.	11 23
991	" 31	L. W. Faulkner & Co	Paint, oil, etc.	11 09.
992	" 31	Chicago Shafting & Pulley Co.	Pulleys	24 08
993	" 31	Walker & Mulliken	Tables	16 50
994	" 31	C. A. Clark & Co.	Labor on stone	25 00
995	" 31	G. E. Morrow	Expenses	1 90
996	" 31	Western Union Telegraph Co.	Telegram	5 91
997	" 31	C. C. C. St. L. Ry. Co.	Freightage	17 18
998	" 31	Ill. Central R. R. Co.	"	19 83
999	" 31	Wabash R. R. Co.	"	2 27
1000	" 31	American Express Co.	Expressage	20 45
1001	" 31	Detroit Flower Pot Mfg. Co.	Flower pots	14 65
1002	" 31	J. Hamilton & Son.	Lumber	45 05
1003	" 31	Horns' Coalery Co.	Coal	82 36
1004	" 31	Richards & Co., Ltd.	Glass, tubing, etc.	21 02
1005	" 31	T. R. White, Jr.	Gas	151 40
1006	" 31	W. Bank Note & Engraving Co.	Diplomas	100 00
1007	" 31	J. Bishop & Co.	Repairs of platinum	2 50
1008	" 31	Whitall, Tatum & Co.	Glass boxes	13 65
1009	" 31	Meyer-Sniffen Co.	Plumbers' supplies	7 85
1010	" 31	Schaffer & Budenberg	Calorimeters	74 90
1011	" 31	Gustav E. Stechert	Journals	15 25
1012	" 31	Bradbury-Stone Storage Bat. Co.	Glass	36 50
1013	" 31	McIntosh Battery & Optical Co.	Pasteur filter, etc.	47 28
1014	" 31	Hamilton & Russell	Hardware, etc.	6 45
1015	" 31	D. L. Roots & Son	Oak stands, etc.	35 75
1016	" 31	Park Bros. & Co., Ltd.	Electrical apparatus	5 30
1017	" 31	Keuffel & Esser Co.	Integrator and planimeter	152 00
1018	" 31	F. A. Pickham	Books	10 50
1019	" 31	Mayer & Muller	"	452 43
1020	" 31	Stearns Lime & Stone Co.	Cement	3 75
1021	" 31	Rand, McNally & Co.	Maps	7 15
1022	" 31	Frost & Adams	Pentagraph, etc.	2 16
1023	" 31	Bates, Kimball & Guild	Architectural Review	5 00
1024	" 31	J. C. Sedgwick	Book case	7 00
1025	" 31	R. Friedlander & Son.	Books	257 64
1026	" 31	Maltby & Wallace	Gate valves, etc.	66 18
1027	" 31	Johns Hopkins Press.	Studies in history and politics	3 00
1028	" 31	A. C. McClurg & Co.	Stationery and books	61 97
1029	" 31	D. L. Roots & Son	Oak blocks	1 60
1030	" 31	F. F. Frederick	Expenses art department	10 62
1031	" 31	H. S. Brode	Expenses Zoölogical laboratory	12 86
1032	" 31	Gustav E. Stechert	Books, apparatus	149 40
1033	" 31	G. W. Call	Sulphur rock	15 25
1034	" 31	Western Union Telegraph Co.	Telegrams	11 18
1035	" 31	J. W. Spalding	Postage	15 00
1036	" 31	Western Electric Co.	Apparatus	34 09
1037	" 31	Edward Hart	Subscription	3 00
1038	" 31	Northwestern Calcium Light Co.	Gas	7 78
1039	" 31	G. C. Miller	Blue prints	5 90
1040	" 31	The <i>Illini</i>	Advertising	16 66
1041	" 31	G. E. Stechert	Books	79 18
1042	" 31	Robinson & Burr	Labor and material	133 40
1043	" 31	G. Besore	Lumber, etc.	415 03
1044	" 31	Henry Trevett	Hardware	61 20
1045	" 31	Fuller & Fuller Co.	Chemical supplies, etc.	71 51
1046	" 31	The Gazette	Printing and stationery	98 22
1047	" 31	R. S. Wilber	Drayage, etc.	130 78
1048	" 31	Mechanical department	Labor, material and power	210 24
1049	" 31	Architectural department	"	118 30
1050	" 31	"	"	159 12
1051	June 15	N. W. Graham	Expense to board and com. meeting	73 69
1052	" 15	Alex. McLean	"	85 10
1053	" 15	S. A. Bullard	Expense to board meeting	19 10
1054	" 15	R. P. Morgan	"	28 60
1055	" 15	J. H. Bryant	"	23 00
1056	" 15	F. M. McKay	"	10 50
1057	" 15	N. B. Morrison	Expense to board and com. meeting	111 50
1058	" 15	I. S. Raymond	"	3 25
1059	" 15	F. M. McKay	Expense to Boston and Ithaca	98 50
1060	" 15	J. E. Armstrong	Expense to Ithaca, N. Y.	48 00
1061	" 15	H. Chester	Hack hire	4 00
1062	" 15	Mrs. Katherine Wadsworth	Singing at commencement	50 00
1063	" 15	D. D. Darrah	Expense as judge, oration prizes	5 00
1064	" 15	Pentagraph Printing & Sta. Co.	Printing and stationery	50 00
1065	" 15	G. N. Carozzi	Music and music fees	81 00
1066	" 15	N. F. Marsh	Music books	3 70



*List of Warrants—Continued.*

No.	Date.	To whom.	For what.	Amount.
	1893.			
1067	June 15	H. C. Forbes.	Salary, May, 1893.	\$83 33
1068	" 15	H. E. Summers.		100 00
1069	" 15	American Express Co.	Expressage.	15 00
1070	" 15	F. L. Bills.	Postage stamps.	15 00
1971	" 15	Jas. D. Phillips.	Salary and lettering diplomas.	150 00
1072	" 15	D. Appleton & Co.	Annual Cyclopaedia.	6 00
1073	" 15	Agricultural department U. of I.	Expense, May, 1893.	55 73
1074	" 15	Pay roll of men and women.	May, 1893, labor.	377 12
1075	" 15	Pay roll of students.		339 91
1076	June 30	T. J. Burrill.	Salary for June, 1893.	266 66
1077	" 30	S. W. Shattuck.	" "	166 66
1078	" 30	E. Snyder.	" "	166 66
1079	" 30	N. C. Ricker.	" "	166 66
1080	" 30	J. D. Crawford.	" "	166 66
1081	" 30	G. E. Morrow.	" "	108 33
1082	" 30	I. O. Baker.	" "	166 66
1083	" 30	S. A. Forbes.	" "	83 33
1084	" 30	J. H. Brownlee.	" "	166 66
1085	" 30	C. W. Rolfe.	" "	166 66
1086	" 30	D. McIntosh.	" "	150 00
1087	" 30	A. N. Talbot.	" "	166 66
1088	" 30	A. W. Palmer.	" "	150 00
1089	" 30	F. F. Frederick.	" "	150 00
1090	" 20	S. W. Parr.	" "	150 00
1091	" 30	M. R. Paradis.	" "	150 00
1092	" 30	H. J. Barton.	" "	166 66
1093	" 30	Chas. M. Moss.	" "	150 00
1094	" 30	W. J. Baldwin.	" "	133 33
1095	" 30	C. W. Scribner.	" "	166 66
1096	" 30	D. K. Dodge.	" "	166 66
1097	" 30	G. W. Myers.	" "	100 00
1098	" 30	Katharine Merrill.	" "	100 00
1099	" 30	D. W. Shea.	" "	150 00
1100	" 30	W. O. Krohn.	" "	150 00
1101	" 30	G. W. Parker.	" "	115 00
1102	" 30	R. Anderson.	" "	133 33
1103	" 30	E. K. Hall.	" "	100 00
1104	" 30	H. S. Brode.	" "	100 00
1105	" 30	J. M. White.	" "	100 00
1106	" 30	Edith A. Shattuck.	" "	60 00
1107	" 30	T. A. Clark.	" "	75 00
1108	" 30	R. H. Forbes.	" "	75 00
1109	" 30	C. D. McLane.	" "	75 00
1110	" 30	F. D. Gardner.	" "	41 66
1111	" 30	W. E. Sandford.	" "	60 00
1112	" 30	W. D. Pence.	" "	30 00
1113	" 30	J. G. Thompson.	" "	75 00
1114	" 30	A. L. Kuehmsted.	" "	100 00
1115	" 30	Alice M. Barber.	" "	40 00
1116	" 30	H. S. Platt.	" "	40 00
1117	" 30	C. B. Clark.	" "	75 00
1118	" 30	H. E. Parker.	" "	30 00
1119	" 30	G. P. Clinton.	" "	83 33
1120	" 30	W. L. Pillsbury.	" "	41 66
1121	" 30	Cleaves Bennett.	" "	85 00
1122	" 30	Grace Peabody.	" "	45 00
1123	" 30	A. B. Baker.	" "	70 00
1124	" 30	L. H. Walden.	" "	12 50
1125	" 30	C. A. Herme.	" "	30 00
1126	" 30	L. G. Lathrop.	" "	20 00
1127	" 30	Joe Morrow.	" "	20 00
1128	" 30	John Marten.	" "	83 33
1129	" 30	Mary J. Snyder.	" "	62 50
1130	" 30	Hugo Kahl.	" "	40 00
1131	" 30	S. Raymond Roberts.	Manual of Conchology.	12 00
1132	" 30	Entomological Society, Ontario.	Canadian Entomologist.	1 00
1133	" 30	Ginn & Co.	Journal of Morphology.	8 00
1134	" 30	N. D. C. Hodges.	Subscription to "Science".	3 50
1135	" 30	The Nautilus.	Subscription.	1 00
1136	" 30	Macmillan & Co.	" "	3 00
1137	" 30	Gutta Percha and Rubber Co.	Gas bag.	7 00
1138	" 30	The Engineering News Pub. Co.	Advertising.	6 88
1139	" 30	The Illini.	Subscriptions.	77 75
1140	" 30	W. E. Sandford.	Incidentals.	1 49
1141	" 30	J. E. Armstrong.	Expense to board meeting.	13 78
1142	" 30	T. J. Burrill.	Expenses.	10 56
1143	" 30	The Crescent Distillery.	Alcohol.	41 71

*List of Warrants—Continued.*

No.	Date.	To whom.	For what.	Amount.
1144	June 30	American Express Co.	Expressage	\$2 82
1145	" 30	D. H. Lloyd & Son.	Stationery	5 45
1146	" 30	Bernard Quaritch.	Books.	98 48
1147	" 30	J. E. Hallinen.	Salary April and May, 1893	100 00
1148	" 30	Hugo Kahl.	Salary May, 1893.	40 00
1149	" 30	University of Illinois band.	Services at World's Fair.	100 00
1150	" 30	J. W. Butler Paper Co.	Photo mounting board.	41 25
1151	" 30	Maltby & Wallace.	Weir plates.	9 30
1152	" 30	Sheldon Brick Co.	Molding sand.	3 00
1153	" 30	Robinson & Burr.	Labor, material, and repairs	84 76
1154	" 30	Western Electric Company.	Electric apparatus.	8 51
1155	" 30	Gen. Incandescent Arc Light Co.	Arc lights.	108 82
1156	" 30	Fauth & Co.	Repairs on level.	15 00
1157	" 30	James W. Queen & Co.	Balance and repairs.	120 00
1158	" 30	S. H. Garrison.	Mason work and material.	73 38
1159	" 30	Wm. Price.	Painting and kalsomining.	66 38
1160	" 30	A. B. Baker.	Labor, cleaning.	120 51
1161	" 30	Pantagraph Printing Co.	Binding.	71 34
1162	" 30	H. S. Platt.	Balance of salary, 1892-93.	100 00
1163	" 30	Olof Olson.	Music fees.	10 65
1164	" 30	Olof Olson.	Commissions.	10 65
1165	" 30	W. L. Pillsbury.	Expenses of trip, Minnesota.	85 76
1166	" 30	J. W. Spalding.	Postage.	41 00
1167	" 30	Henry Trevet.	Hardware.	24 00
1168	" 30	Adams Express Co.	Expressage.	1 72
1169	" 30	J. E. Hallinen.	Services and expenses.	52 77
1170	" 30	Chas. H. Worthen.	Skins.	18 96
1171	" 30	A. P. Cunningham & Son.	Subscription, etc.	7 68
1172	" 30	H. C. Forbes.	Salary for June, 1893.	83 33
1173	" 30	H. E. Summers.		100 00
1174	" 30	S. W. Shattuck.	Services as disbursing agent.	50 00
1175	" 30	American Express Co.	Expressage.	3 30
1176	July 15	J. W. Bunn.	Taxes.	1,381 79
1177	" 15	Egbert T. Sees, Treas.	Official Railway Guide.	5 00
1178	" 15	H. W. Rokker.	Stationery.	4 50
1179	" 15	James Seamen.	Insect boxes.	75 55
1180	" 15	R. S. Wilber.	Drayage.	2 60
1181	" 15	General Electric Company.	Electric apparatus.	313 28
1182	" 15	Western Electric Company.		44 95
1183	" 15	Queen & Co.	"	2,040 25
1184	" 15	McIntosh Battery Company.	Compass, etc.	63 00
1185	" 15	Jenney Electric Motor Company.	Motor.	196 00
1186	" 15	Hornstein Bros.	Printing catalogues.	573 96
1187	" 15	The North W. Calcium Light.	Gas and limes.	9 95
1188	" 15	Alex. McLean.	Expenses to board meeting.	35 79
1189	" 15	S. A. Bullard.	"	31 61
1190	" 15	S. A. Bullard.	Expenses of trip to east.	115 70
1191	" 15	N. B. Morrison.	Expenses to Madison.	27 90
1192	" 15	J. E. Armstrong.	Expenses to LaFayette.	14 05
1193	" 15	C. A. Kiler.	Rooms for members of board.	43 00
1194	" 15	W. L. Pillsbury.	Expenses to board meeting.	19 15
1195	" 15	S. W. Shattuck.	"	16 75
1196	" 15	R. P. Morgan.	Expenses to Madison.	27 95
1197	" 15	Central Union Telephone Co.	Rent of instrument, 3 mo. to Sept., '93.	15 00
1198	" 15	Agricultural department U. of I.	Expenses June, 1893.	98 65
1199	" 15	Pay-roll of men and women.	June, 1893, labor.	444 78
1200	" 15	Pay-roll of students.	"	19 90
1201	July 31	James Inglis.	Portraits.	18 00
1202	" 31	The Warner Company.	Engravings.	4 75
1203	" 31	Mast Crowell Kirkpatrick.	"	7 50
1204	" 31	J. M. White.	Historical chart.	10 00
1205	" 31	J. L. Mott Iron Works.	Plumber's supplies.	7 75
1206	" 31	Carl Schoenhof.	Books.	2 51
1207	" 31	O. Riley.	Watch, etc.	10 50
1208	" 31	I. O. Baker.	Expenses.	3 40
1209	" 31	F. Finder.	Labor.	1 75
1210	" 31	Chicago Legal News Co.	Session laws.	1 50
1211	" 31	J. D. Phillips.	Copying.	6 50
1212	" 31	John A. Lowrey.	"	2 50
1213	" 31	George Besore.	Lumber and coal.	251 47
1214	" 31	T. R. White, Jr.	Gas, May and June, 1893.	118 60
1215	" 31	Union Manufacturing Co.	Water to July 1, 1893.	275 00
1216	" 31	Hornstein Bros.	Wrappers.	10 00
1217	" 31	E. O. Vaile.	Advertising.	10 00
1218	" 31	Champaign County Herald.	Printing.	88 16
1219	" 31	Champaign Times.	"	3 50
1220	" 31	Public School Pub. Co.	Advertising.	6 00
1221	" 31	Thomas Naughton.	Photographs.	41 00

*List of Warrants—Continued.*

No.	Date.	To whom.	For what.	Amount.
	1893.			
1232	July 31	A. P. Cunningham	Chemical supplies, etc.	\$56 72
1113	" 31	R. Douglas & Son	Nursery stock	19 00
1224	" 31	Fuller & Fuller Co.	Glass	6 25
1225	" 31	Bullard & Gormley Co.	Hardware	17 19
1226	" 31	T. J. Burrill	Salary, July, 1893	266 66
1227	" 31	S. W. Shattuck	"	166 66
1228	" 31	E. Snyder	"	166 66
1229	" 31	N. C. Ricker	"	166 66
1230	" 31	J. D. Crawford	"	166 66
1231	" 31	G. E. Morrow	"	108 33
1242	" 31	I. O. Baker	"	166 66
1233	" 31	S. A. Forbes	"	83 33
1234	" 31	J. H. Brownlee	"	166 66
1235	" 31	C. W. Rolfe	"	166 66
1236	" 31	D. McIntosh	"	150 00
1237	" 31	A. N. Talbot	"	166 66
1238	" 31	A. W. Palmer	"	150 00
1239	" 31	F. F. Frederick	"	150 00
1240	" 31	S. W. Parr	"	150 00
1241	" 31	M. R. Paradis	"	150 00
1242	" 31	H. J. Barton	"	166 66
1243	" 31	Chas. M. Moss	"	150 00
1244	" 31	W. J. Baldwin	"	133 33
1245	" 31	C. W. Scribner	"	166 66
1246	" 31	D. K. Dodge	"	166 66
1247	" 31	G. W. Myers	"	100 00
1248	" 31	Katharine Merrill	"	100 00
1249	" 31	D. W. Shea	"	150 00
1250	" 31	W. O. Krohn	"	150 00
1251	" 31	G. W. Parker	"	115 00
1252	" 31	R. Anderson	"	133 33
1253	" 31	W. L. Pillsbury	"	41 66
1254	" 31	A. B. Baker	"	70 00
1255	" 31	H. C. Forbes	"	83 33
1256	" 31	John Marten	"	83 33
1257	" 31	Mary J. Snyder	"	62 50
1258	" 31	Isaac Fielding	Postage	30 00
1259	" 31	The Gazette	Printing	41 20
1260	" 31	The Ill. Hyd. Press Brick Co.	Brick	3 00
1261	" 31	Walker & Mulliken	Hauling chairs	3 00
1262	" 31	Richards & Co. L'td.	Chemical supplies	12 68
1263	" 31	A. Barr	Walnut lumber	34 08
1264	" 31	G. C. Willis	Toweling, etc.	34 76
1265	" 31	J. J. Flather	Expenses	11 69
1266	" 31	A. C. McClurg & Co.	Stationery	5 65
1267	" 31	D. H. Lloyd & Son	"	11 50
1268	" 31	Henry Trevett	Hardware	17 00
1269	" 31	Bacon, Mittendorf & Hall	Picture frames, etc.	19 86
1270	" 31	American Express Co.	Freight charges	3 85
1271	" 31	Western Union Telegraph Co.	Telegraph charges	5 97
1272	" 31	C. C. C. & St. L. Ry. Co.	Freightage	24 94
1273	" 31	Illinois Central Railroad Co.	"	20 48
1274	" 31	Pacific Express Co.	Expressage	13 93
1275	" 31	American Express Co.	"	12 46
1276	Aug. 15	N. W. Graham	Expenses to board and com. meeting	62 89
1277	" 15	F. M. McKay	Ex. for com. instruction and finance	23 55
1278	" 15	Jas. E. Armstrong	"	28 25
1279	" 15	W. L. Pillsbury	Expenses to committee meeting	3 50
1280	" 15	R. P. Morgan	Expenses to board and com. meeting	33 40
1281	" 15	S. A. Bullard	"	56 70
1282	" 15	M. J. Grealish	Supplies for military department	17 00
1283	" 15	The Crescent Distillery	Alcohol	42 00
1284	" 15	The Turbyme Tamblin Co.	Electric supplies	75 00
1285	" 15	T. D. Cairns Co.	Directories	7 50
1286	" 15	John Marten	Expenses	44 72
1287	" 15	S. A. Forbes	Expenses	37 63
1288	" 15	N. C. Ricker	Ex. com. meeting board of trustees	11 45
1289	" 15	Agricultural department U. of I.	Expenses, July, 1893	64 20
1290	" 15	Isaac Fielding	Postage	35 00
1291	" 15	Grace Peabody	Salary, July, 1893	25 00
1292	" 15	L. P. Breckenridge	Expenses	23 36
1293	" 15	B. V. Swenson	Salary, June and July, 1893	170 00
1294	" 15	G. W. Bullard	Premium on design Engineering Hall	500 00
1295	" 15	R. W. Hart	"	300 00
1296	" 15	J. C. Llewellyn	"	200 00
1297	" 15	Burrows & Hubbell	"	100 00
1298	" 15	A. B. Seymour	Plant material	7 10

*List of Warrants—Continued.*

No.	Date.	To whom.	For what.	Amount.
	1893.			
1299	Aug. 15	Pay rolls of men	July, 1893, labor	\$298 23
1300	" 15	Pay rolls of students	" " "	105 27
1301	" 31	T. J. Burrill	Salary, August, 1893	266 66
1302	" 31	S. W. Shattuck	" " "	166 66
1303	" 31	E. Snyder	" " "	166 66
1304	" 31	N. C. Ricker	" " "	166 66
1305	" 31	J. D. Crawford	" " "	166 66
1306	" 31	G. E. Morrow	" " "	108 33
1307	" 31	I. O. Baker	" " "	166 66
1308	" 31	S. A. Forbes	" " "	83 33
1309	" 31	J. H. Brownlee	" " "	166 66
1310	" 31	C. W. Rolfe	" " "	166 66
1311	" 31	D. McIntosh	" " "	150 00
1312	" 31	A. N. Talbot	" " "	166 66
1313	" 31	A. W. Palmer	" " "	150 00
1314	" 31	F. F. Frederick	" " "	150 00
1315	" 31	S. W. Parr	" " "	150 00
1316	" 31	M. R. Paradis	" " "	150 00
1317	" 31	H. J. Barton	" " "	166 66
1318	" 31	Chas. M. Moss	" " "	150 00
1319	" 31	W. J. Baldwin	" " "	133 33
1320	" 31	C. W. Scribner	" " "	166 66
1321	" 31	D. K. Dodge	" " "	166 66
1322	" 31	Geo. W. Myers	" " "	100 00
1323	" 31	Katharine Merrill	" " "	100 00
1324	" 31	D. W. Shea	" " "	150 00
1325	" 31	W. O. Krohn	" " "	150 00
1326	" 31	G. W. Parker	" " "	115 00
1327	" 31	R. Anderson	" " "	133 33
1328	" 31	W. L. Pillsbury	" " "	41 66
1329	" 31	A. B. Baker	" " "	70 00
1330	" 31	Lillie Heath	" " "	40 00
1331	" 31	H. C. Forbes	" " "	83 33
1332	" 31	John Marten	" " "	83 33
1333	" 31	Mary J. Snyder	" " "	62 50
1334	" 31	Chas. A. Hart	" " "	62 50
1335	" 31	F. D. Gardner	Salary, July and August, 1893	83 33
1336	" 31	A. H. Baldwin	Colors and drawings	126 89
1337	" 31	Western Union Telegraph Co.	Telegrams	4 34
1338	" 31	National Typewriter Exchange	Paper	2 75
1339	" 31	S. Raymond Roberts	Manual of Conchology	6 00
1340	" 31	Geo. Brumder	Our Native Birds	11 00
1341	" 31	Ginn & Co.	Philosophical Review, 1893	3 00
1342	" 31	F. K. Robeson & Bro.	Matting	30 60
1343	" 31	Maltby & Wallace	Supplies and repairs	17 69
1344	" 31	Thos. Franks	Flowers	15 00
1345	" 31	Robinson & Burr	Supplies and repairs	90 08
1346	" 31	The Ribbon Adder Co.	Ribbon adder	15 00
1347	" 31	S. D. Childs & Co.	Bound volumes of checks	30 00
1348	" 31	Marshall Field & Co.	Matting and mats	46 56
1349	" 31	A. C. McClurg & Co.	Stationery	41 72
1350	" 31	Geo. Besore	Lumber	95 23
1351	" 31	S. W. Shattuck	Salary, 3 months, to date	150 00
1352	" 31	Thomas Bernes	Drayage	1 60
1353	" 31	E. L. Bills	Postage	15 00
1354	" 31	W. D. Burton	Lumber	5 07
1355	" 31	American Express Co.	Expressage	1 64
1356	" 31	Granolithic Pavement Co.	Cement walks	450 00
1357	" 31	H. E. Reeder	Work	15 00
1358	" 31	A. H. Andrews & Co.	Desks, etc.	89 00
1359	" 31	Pantagraph Printing Co.	Printing	48 25
1360	" 31	Thayer & Jackson Stationery Co.	Stationery	1 00
1361	" 31	National Typewriter Exchange	Ribbon, etc.	4 20
1362	" 31	H. C. Forbes	Laboratory expenses	8 41
1363	" 31	Chas. Verdin	Apparatus	30 00
1364	" 31	F. L. Bills	Postage	10 00
1365	" 31	N. W. Graham	Expense to board and com. meeting	39 37
1366	" 31	H. J. Barton	Freightage	1 50
1367	" 31	Assoc. Am. Agr. Coll. Expt. Sta.	Membership fee	10 00
1368	" 31	Western Bank Note En'g Co.	Diplomas	12 50
1369	" 31	Bullard & Wormley Co.	Hardware	11 16
1370	" 31	V. M. Shuck	Window screens	7 00
1371	" 31	E. G. Hill & Co.	Greenhouse stock	4 50
1372	" 31	W. P. Messler & Co.	Fruit and vegetable boxes	9 00
1373	" 31	H. Swannell	Paints, etc.	20 90
1374	" 31	Engineering News Pub. Co.	Advertisement	6 88
1375	" 31	Baker Adamson	Acid	72 85

*List of Warrants—Concluded.*

No.	Date.	To whom.	For what.	Amount.
	1893.			
1376	Aug. 31	Illinois State Journal .....	Advertising .....	\$4 00
1377	" 31	The Transcript Co. ....	" .....	8 00
1378	" 31	The Yale & Towne M'fg Co. ....	Locks .....	2 67
1379	" 31	C. C. Bailey .....	Chain pump .....	7 85
1380	" 31	M. B. Swezey .....	Dumb waiter .....	99 00
1381	" 31	Crane & Co. ....	Pipe and fittings .....	202 65
1382	" 31	Gutta Percha Rubber M'fg Co. ....	Rubber bag .....	10 00
1383	" 31	Lydia M. Hart .....	Drawings .....	34 64
1384	" 31	Franklin Educational Co .....	Oils, etc. ....	2 37
1385	" 31	Bausch & Lomb Optical Co .....	Slides, covers, etc .....	26 81
1386	" 31	A. H. Andrews & Co. ....	Desks, etc. ....	207 70
1387	" 31	G. E. Marshall & Co. ....	Record book .....	5 00
1388	" 31	F. K. Robeson & Bro. ....	Crash .....	5 13
1389	" 31	Henry Trevett .....	Hardware .....	20 60
1390	" 31	Robinson & Burr .....	Repairs .....	132 71
1391	" 31	Knowlton & Bennett .....	Paints, etc. ....	38 58
1392	" 31	I. C. R. R. Co. ....	Freightage .....	62 35
1393	" 31	Wabash R. R. Co. ....	" .....	20 56
1394	" 31	C., C., & St. L. R'y Co. ....	" .....	5 04
1395	" 31	American Express Co .....	Expressage .....	18 38
1396	" 31	S. W. Shattuck .....	Petty expenses, 3 mo., to May 31, 1893.	25 25
1397	" 31	Chemical department .....	Material furnished .....	43 86
1398	" 31	Mechanical department .....	Labor and material .....	13 97
1399	" 31	Architectural department .....	" .....	200 66
1400	" 31	" .....	" .....	300 38

*Financial Statement of the University of Illinois [not including State Laboratory of Natural History or the Agricultural Experiment Station] for the year ending August 31, 1893.*

RECEIPTS, SEPTEMBER 1, 1892—AUGUST 31, 1893.		
Balance .....		\$81,693 92
<i>From U. S. Appropriation—</i>		
For instruction and the facilities therefor .....		19,000 00
<i>From State Appropriations—</i>		
For salaries, library, repairs, etc. ....	\$60,000 00	
For erection of an engineering building .....	80,000 00	
For furnishing and heating Natural History Hall .....	6,000 00	
For increase of central heating plant .....	6,500 00	
		152,500 00
<i>From other sources—</i>		
Interest .....	27,430 95	
Rents .....	1,053 35	
Fees of University students .....	13,879 25	
Fees of preparatory students .....	2,690 84	
Gross receipts of business departments and laboratories .....	13,235 24	
Miscellaneous .....	506 95	
		58,796 58
		<u>\$311,990 50</u>
EXPENDITURES, SEPTEMBER 1, 1892—AUGUST 31, 1893.		
<i>Of U. S. Appropriations—</i>		
Salaries for instructions .....	\$15,000 00	
Library .....	1,180 02	
Veterinary department .....	29 15	
College of engineering .....	191 84	
Architectural department .....	250 32	
Civil engineering department .....	124 57	
Mechanical engineering department .....	496 60	
Physical and electrical laboratories .....	3,787 17	
Chemical laboratory .....	241 96	
Natural history department .....	337 10	
Geological laboratory .....	1 44	
Mining engineering department .....	47 59	
Agricultural department .....	48 95	
Zoological department .....	400 00	
Testing laboratory .....	25 38	
		\$32,162 09
<i>Of State Appropriations—</i>		
Taxes on Minnesota lands .....	1,381 79	
Buildings and grounds .....	3,236 91	
Mechanical shops .....	2,000 00	
Books and publications .....	819 80	
Cabinets .....	62 18	
Instruction .....	20,000 00	
Apparatus and material .....	2,030 28	
Metallurgical laboratory .....	46 75	
Heating Military Hall .....	469 14	
Natural History Hall .....	15,015 58	
Heating and furnishing same .....	9,985 20	
Engineering Hall .....	1,129 45	
		\$55,177 08
<i>Of other funds—</i>		
Board expenses .....	\$1,993 11	
Salaries for instruction .....	23,353 54	
Salaries for service .....	5,743 83	
Buildings and grounds .....	433 26	
Fuel and lights .....	4,353 25	
Stationery, postage, and printing .....	2,083 24	
Preparatory school .....	2,590 69	
Gross expenses of business departments .....	10,696 07	
Water supply .....	475 00	
Furniture and fixtures .....	494 39	
Premium on bonds .....	3,392 00	
Natural History Hall .....	2,844 37	
Incidentals .....	563 65	
Miscellaneous .....	3,727 71	
		62,744 11
Balance .....		171,907 22
		<u>\$311,990 50</u>

*Financial Statement of the Illinois State Laboratory of Natural History for the fiscal year ending June 30, 1893.*

RECEIPTS.		
Balance.....	\$787 58	
For field, office, and incidental expenses.....	1,500 00	
Improvement of library.....	1,000 00	
Pay of assistants.....	3,500 00	
Additional copies Vol. 1, Natural History Survey of Illinois.....	600 00	
Illustration of report of State Entomologist.....	250 00	
Publication of bulletins.....	500 00	
EXPENDITURES.		
For field, office, and incidental expenses.....		\$1,504 91
Improvement of library.....		1,000 61
Pay of assistants.....		3,532 06
Additional copies Vol. 8, Natural History Survey of Illinois.....		600 00
Illustration of report of State Entomologist.....		300 00
Publication of bulletins.....		289 69
Balance.....		710 31
Total.....	\$8,137 58	\$8,137 58

*Financial Statement of the Agricultural Experiment Station, University of Illinois, for the year ending June 30, 1893.*

RECEIPTS.		
Appropriated by Congress.....	\$15,000 00	
From State Board of Agriculture for analyses of fertilizers.....	70 00	
EXPENDITURES.		
Board expense.....		\$41 77
Books and publications.....		721 48
Botanical apparatus and supplies.....		65 33
Bulletins and report.....		1,325 64
Chemical apparatus and supplies.....		363 49
Fuel and lights.....		268 44
Furniture.....		10 75
Incidentals.....		75 01
Meteorological apparatus.....		12 15
Printing, stationery, and postage.....		263 00
Salaries.....		7,489 98
Seeds and trees.....		97 48
Tools and supplies.....		194 28
Wages and teams.....		3,962 85
Special expenditures on beet, wheat, clover, and nitrogen experiments.....		92 67
Special expenditures on dairying experiments.....		84 68
Total.....	\$15,070 00	\$15,070 00





PROCEEDINGS  
OF THE  
BOARD OF TRUSTEES  
OF THE  
UNIVERSITY OF ILLINOIS,  
FOR THE YEAR ENDING AUGUST 31, 1894.

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MEETING OF SEPTEMBER 12, 1893.

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The Board of Trustees of the University of Illinois met in the University parlor in Urbana, at 3 o'clock p. m., Tuesday, Sept. 12, 1893. There were present Messrs. Armstrong, Bullard, Graham, McKay, McLean, Morgan, Morrison, Raab, and Raymond; absent, Governor Altgeld, and Messrs. Bryant and Gore.

The minutes of the last meeting were approved.

As Mr. Pence had been, contrary to what was intended, appointed assistant professor instead of instructor, the secretary was directed to change the record of the last meeting so that it should appear that he was appointed instructor in civil engineering.

On motion of Mr. Morgan, the board went into executive session in regard to Professor Crawford.

The finance committee made the following report:

URBANA, ILL., Sept. 12, 1893.

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

GENTLEMEN: The undersigned, your finance committee, begs leave to report that at a meeting held in Chicago, August 2, 1893, at which time there was present in addition to your committee, Governor John P. Altgeld, the matter of the approval of the bond of Charles W. Spalding, treasurer-elect, was considered; and after a careful examination by the committee, and on the advice of the Governor, the securities were approved.

Afterwards, on the 3d day of August, your committee, together with Mr. N. W. Graham, Mr. S. A. Bullard, and Mr. N. B. Morrison, as executive committee, formally approved the bond as presented.

The committee will deposit the bond with the business agent, as directed by the board.

Afterwards, August 24th, your committee met with Mr. C. W. Spalding and Mr. John W. Bunn, late treasurer, who at that time handed Mr. Spalding certain bonds belonging to the endowment fund, for which Mr. Spalding gave receipts as follows:

Received, Chicago, August-24, 1893, of John W. Bunn, late treasurer of the University of Illinois, the following bonds belonging to the endowment fund of said University:

Champaign county.....	4½ per cent. bonds.....	\$50,000 00
Pike county.....	7 " " " " " " " " " " " "	39,000 00
Morgan county.....	4 " " " " " " " " " " " "	35,000 00
Kankakee county.....	5 " " " " " " " " " " " "	30,000 00
Jasper county.....	5 " " " " " " " " " " " "	15,000 00
Logan county.....	5 " " " " " " " " " " " "	15,000 00
Macoupin county.....	6 " " " " " " " " " " " "	10,300 00
Gallatin county.....	6 " " " " " " " " " " " "	10,000 00
Douglas county.....	6 " " " " " " " " " " " "	10,000 00
Crawford county.....	6 " " " " " " " " " " " "	10,000 00
Taylorville.....	6 " " " " " " " " " " " "	20,000 00
Cook county, Austin.....	5 " " " " " " " " " " " "	23,000 00
Champaign.....	4½ " " " " " " " " " " " "	18,000 00
Cass county.....	5 " " " " " " " " " " " "	13,000 00
Pittsfield.....	6 " " " " " " " " " " " "	10,500 00
Sangamon.....	5 " " " " " " " " " " " "	9,000 00
Urbana.....	5½ " " " " " " " " " " " "	9,000 00
Montgomery county.....	6 " " " " " " " " " " " "	9,000 00
Morgan county.....	6 " " " " " " " " " " " "	9,000 00
Litchfield.....	5½ " " " " " " " " " " " "	8,000 00
Champaign county.....	5 " " " " " " " " " " " "	7,850 09
Homer.....	5 " " " " " " " " " " " "	7,500 00
Platt county.....	6 " " " " " " " " " " " "	7,100 00
Sangamon county.....	5 " " " " " " " " " " " "	6,000 00
Mattoon.....	5 " " " " " " " " " " " "	6,000 00
Shelby county.....	6 " " " " " " " " " " " "	5,500 00
Montgomery county.....	6½ " " " " " " " " " " " "	3,000 00
Bond county.....	6 " " " " " " " " " " " "	1,900 00
Montgomery county.....	6 " " " " " " " " " " " "	1,500 00
Sangamon county.....	7 " " " " " " " " " " " "	600 00
Total.....		\$399,750 00

Amounting to three hundred and ninety-nine thousand, seven hundred and fifty dollars.

CHARLES W. SPALDING,  
*Treasurer.*

Also, at the same time and place, Mr. Bunn delivered to Charles W. Spalding funds as set forth in the following receipts:

CHICAGO, Aug. 24, 1893.

\$25,000.

Received from John W. Bunn, late treasurer of the University of Illinois, the sum of twenty-five thousand dollars to apply on account of the endowment fund of the University of Illinois.

CHAS. W. SPALDING,  
*Treasurer.*

CHICAGO, Aug. 24, 1893.

\$18,000.

Received of John W. Bunn, late treasurer of the University of Illinois, eighteen bonds of Kankakee county, Illinois, 5 per cent. interest, \$1,000 each, aggregating eighteen thousand dollars, to apply on the general fund of said University.

CHAS. W. SPALDING,  
*Treasurer.*

The foregoing closes up to date the matter of all transfer of bonds belonging to the endowment fund, together with the Kankakee bonds belonging to the general fund, as set forth in the above receipt.

The balances of other funds due from Mr. Bunn will be turned over to Mr. Spalding at this meeting of the board, when settlement will be made with the business agent of the University to ascertain the actual balance due the University. This will be a settlement in full by Mr. Bunn, our late treasurer.

The committee also begs leave to report that it submitted the form of the bond to S. M. Millard, an attorney, who gave us a written opinion of the same, declaring the bond, as accepted by your committee, to be in proper form according to the law in such cases made and provided.

Respectfully submitted,

ALEX. MCLEAN,  
J. E. ARMSTRONG, } *Finance Committee.*  
F. M. MCKAY,

A telegram was received from Governor Altgeld saying that he had missed the train at Bloomington, and asking whether or not the board would be in session the next day. The secretary was directed to answer that the board would not be in session the afternoon of the next day.

The report of the finance committee was adopted, on motion of Mr. Raab.

The finance committee made the following report:

UNIVERSITY OF ILLINOIS, URBANA, Sept. 12, 1893.

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

GENTLEMEN: Your finance committee would report that it has examined warrants No. 1 to 287, inclusive, pertaining to the Experiment Station, dated from July 1, 1892, to June 30, 1893, and amounting to \$15,070, and has found the same correct and duly canceled.

The committee has also examined the warrants issued on university account, numbered 676 to 1,275, inclusive, and dated from March 1 to July 31, 1893, and has found the same correct and duly canceled, except No. 1,102 and 1,252, which have not yet been presented for payment.

Respectfully submitted,

ALEXANDER MCLEAN,  
F. M. MCKAY,  
J. E. ARMSTRONG, } *Finance Committee.*

The report was adopted on motion of Mr. Raab.

#### REGENT'S REPORT.

*To the Board of Trustees of the University of Illinois,*

GENTLEMEN: We are just now in the active operations of the opening of a new collegiate year under, for the most part, very favorable circumstances. It is too early to estimate closely the comparative attendance of the last with the new year, but the indications are that our numbers will be at least as great for the coming as for the last one, notwithstanding the serious condition of general financial affairs. Up to noon of the second day last year there were 139 applications for admittance. At noon today there had been received 159 such applications.

#### CORPS OF INSTRUCTORS.

The teaching force has been largely increased. Upon the list of instructors in the daily program of studies for the fall term of 1892 there were 36 names; there are 48 in the list as now published—an increase of one-third. In this list 16 names are new ones. The annual salary account for instruction upon the basis of the 1st of last June was

\$61,445; the amount for the present year, as the pay roll now stands, will be \$76,080—an addition of \$14,635. Of this increase \$400 is to two professors, \$300 to one assistant professor, and \$3,150 to former instructors and assistants, or \$3,850 additional pay to former members of the corps of instruction, leaving \$10,785 to go to persons newly employed, without counting those who at the same salary take the places vacated by others. What may be termed new departments have been formed in philosophy, in economics and social science, in physiology, and in physical culture for women, while pedagogics has been separated and given a distinct head. Of the new teachers, two have been given the title of professor, and the others are ranked as assistant professors, instructors and assistants. Last year two fellowships were filled; there are three now. A principal has been appointed for the preparatory school.

#### REGISTRAR.

The duties connected with the admission of persons desiring entrance to the University and with the term registration and records of students, heretofore devolving upon the regent, have been transferred to a newly appointed registrar and an office room has been provided for the purpose, as may be learned from the report of your executive committee. Mr. W. L. Pillsbury has been placed in this office, and these duties are to form a part of the already responsible matters entrusted to his charge. He has entered upon the work under the difficulties attendant upon any newly inaugurated business, with the added obstacle of having at this particular time many other things to which his attention is demanded. But the administration of the new office is successful from the start, and great relief is felt by myself as acting regent in the trying opening days of the term. Similar experience in some measure is anticipated throughout the year.

All this indicates activity and growth. I am sure that most of the members of the enlarged corps of instruction will find an abundance of demand upon their time and strength in the discharge of their regular duties, though it may prove that there will be but few students in some of the new courses. The elective system now so largely introduced will, however, give opportunity to students to adjust themselves soon to newer and richer offerings by the University, and this will lead, it may be hoped, to better scholarship and merited renown, while the administration of affairs must be greatly improved.

#### REPAIRS AND IMPROVEMENTS.

The material equipments and improvements of the University added since your last regular meeting are very evident to you all. Much attention has been given to the better fitting of the buildings for the work in hand. Repairs have been made where needed, many rooms have been newly painted and calcimined, blackboards have been renewed, much new furniture has been provided, the public offices have been remodeled, and separate quarters have been established for the preparatory school. A very much needed and highly appreciated improvement has been made in the construction of cement walks from the main entrance ways to the chief buildings.

The city authorities of Urbana have been consulted again about a walk on Green street, and, while nothing has been done about it, members of the city council express themselves ready to vote for the improvement as soon as it seems possible to provide for the expense. The proposition is made to put down this walk at once if the University will furnish the brick. It seems to me this proposal might now be accepted in regard to a walk on the west side of Mathews avenue from Green street to the east door of Natural History Hall. This distance is 220 feet and the cost would be about \$50.00 for a walk six feet wide.

Some further needs for repairs, etc., on the buildings will, I presume, be presented by your committee on buildings and grounds.

MEMBERSHIP OF THE FACULTY.

The matter of the membership of the faculty has been duly considered by the executive committee thereof, and I am authorized to embody the results here. The original state law—the only law bearing upon this subject—reads thus: “The faculty of the university shall consist of the chief instructors in each of the departments.” [Act of the General Assembly, approved January 25, 1867, section 10.] Without defining the term, the committee recommends the constitution for this purpose of the following departments, together with the assignments mentioned of those deemed chief instructors in each:

Departments.	Representatives.
Botany.....	{ Professor Burrill.
Mathematics.....	{ Professor Shattuck.
	{ Assistant Professor Myers.
	{ Assistant Professor Townsend.
German.....	{ Professor Snyder.
	{ Assistant Professor Cooley.
Architecture.....	{ Professor Ricker.
	{ Assistant Professor White.
History.....	Professor Morrow.
Agriculture.....	Professor Baker.
Civil engineering.....	{ Professor Forbes.
Zoölogy.....	{ Assistant Professor Summers.
Geology.....	Professor Rolfe.
Veterinary science.....	Professor McIntosh.
Municipal engineering.....	Professor Talbot.
Chemistry.....	{ Professor Palmer.
	{ Professor Parr.
Art and design.....	Professor Frederick.
Military science.....	Professor Hills.
Romance languages.....	Assistant Professor Bruner.
Latin.....	Professor Barton.
Greek.....	Professor Moss.
Mechanical engineering.....	{ Professor Breckenridge.
	{ Assistant Professor VanDervoort.
English.....	{ Professor Dodge.
Physics and electrical engineering.....	{ Assistant Professor Merrill.
Psychology.....	{ Assistant Professor Shea.
	{ Assistant Professor Krohn.
Physical culture.....	{ Mr. Hall.
	{ Miss Kellogg.
Pedagogics.....	Professor McMurry.
Economics and social science.....	Assistant Professor Kinley.
Philosophy.....	Mr. Daniels.

Mr. Howe, principal of the preparatory school, to be invited to sit with the faculty.

According to your request for suggestions from the regent and deans of the faculty, in regard to the distribution of some \$15,000, supposed to be available for equipments, the subject was duly considered; but on learning from the business agent that over two-thirds of this fund had been already expended by your orders, no definite report was agreed upon. From the best information attainable, when the committee last met, the following general sums were deemed essential for the several colleges:

Agriculture.....	\$225 00
Engineering.....	5,495 00
Science.....	3,210 00
Literature.....	500 00
	<hr/>
	\$9,430 00

But there were departments that could not be heard from at the time, and these figures are not to be taken as indicating the relative needs of the colleges. Other requests have been presented, some of which seem urgent. The requests now in my hands from the various departments, for transmittal to you, may be summarized as follows:

College of engineering.....	\$170 00
Mechanical engineering.....	3,237 00
Physical and electrical engineering.....	3,500 00
Civil engineering.....	2,750 00
Testing laboratory.....	6,075 00
Architecture.....	1,000 00
Chemistry.....	1,100 00
Zoölogy.....	1,841 00
Geology.....	740 00
Physiology.....	150 00
College of literature.....	500 00
Physical culture for women.....	210 00
Music (piano).....	300 00
	<hr/>
	\$21,573 00

Besides this Professor Shea desires permission to employ a storekeeper for the physical laboratory at \$25 a month.

The documents themselves are herewith submitted for your further information as to the purposes and necessities of the indicated expenditures. I shall be glad to add anything I can to this information.

I transmit herewith the report of Professor Morrow, from the college of agriculture, with which is the usual report of farm operations.

I transmit also the report of the director of the Agricultural Experiment Station, Professor Morrow:

#### UNIVERSITY FARM AND COLLEGE OF AGRICULTURE.

UNIVERSITY OF ILLINOIS, Sept. 12, 1893.

*Dr. T. J. Burrill, Acting Regent.*

DEAR SIR: I have the honor to present the following brief statement from the agricultural department, for the three months past:

The receipts from the farm have been.....	\$1,004 18
The farm expenses have been.....	304 83

Balance to credit of farms. ....	\$699 35
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During the past three months, this region has had one of the most severe and protracted drouths ever known. This has modified plans, and has made sales of live stock more than usually difficult, added, as it has been, to the general financial depression. In view of the circumstances the farm animals are in good condition, and the corn promises a larger yield than could have been expected.

Without here giving any arguments in favor of the course proposed, I respectfully ask approval by the trustees of the holding, by the college of agriculture and the Agricultural Experiment Station, of two short "schools" or extended institutes, each to continue one or two weeks; one to be held in northern Illinois, and to be mainly devoted to dairy interests; the other to be held in southern Illinois, and to be largely devoted to horticultural interests. The coöperation of the State Dairymen's Association to be invited for the first, and that of the State and Southern Illinois Horticultural societies to be asked for the second. I ask also that a sum, not exceeing \$250, may be appropriated for the payment of necessary expenses of these meetings. The Experiment Station board has expressed its approval and willingness to coöperate in the conduct of the meetings.

I respectfully ask that a delegate be appointed to represent the University at the annual meeting of the Association of American Agricultural Colleges and Experiment Stations, to be held at Chicago, commencing Tuesday, October 17th.

Respectfully submitted,

G. E. MORROW,  
*Professor of Agriculture.*

## AGRICULTURAL EXPERIMENT STATION.

UNIVERSITY OF ILLINOIS, September 9, 1893.

*Dr. T. J. Burrill, Acting Regent.*

DEAR SIR: I present the following report of the Agricultural Experiment Station:

Paper A is a list of warrants drawn, No. 210 to 287, inclusive, for the quarter ending June 30, 1893, and is accompanied with vouchers for the same, for audit.

Paper B is a statement of expenditures for the quarter ending June 30, 1893.

Paper C is a statement of expenditures for the year ending June 30, 1893.

Paper D is a statement of appropriations, expenditures and balances for the quarter ending September 30, 1893.

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

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

## PAPER B—STATEMENT OF EXPENDITURES FOR QUARTER ENDING JUNE 30, 1893.

Books and publications.....	\$371 85
Botanical apparatus and supplies.....	8 70
Bulletins.....	670 20
Chemical apparatus and supplies.....	118 67
Fuel and lights.....	65 20
Furniture.....	10 75
Incidentals.....	12 60
Printing, stationery, and postage.....	210 27
Salaries.....	1,576 65
Seeds and trees.....	36 79
Tools and supplies.....	127 15
Wages and teams.....	1,137 38
Sundry experiments—	
Beet, wheat and clover experiments.....	31 72
Dairying experiments.....	10 65
Nitrogen experiments.....	37 50
Columbian Exposition work.....	6 15
Total.....	\$4,427 23

## PAPER C—STATEMENT OF RECEIPTS AND EXPENDITURES FOR THE YEAR ENDING JUNE 30, 1893.

RECEIPTS.	
Appropriated by Congress.....	\$15,000 00
From State Board of Agriculture, for analyses of fertilizers.....	70 00
Total.....	\$15,070 00
EXPENDITURES.	
Board expenses.....	\$41 77
Books and publications.....	721 48
Botanical apparatus and supplies.....	65 33
Bulletins and report.....	1,325 64
Chemical apparatus and supplies.....	363 49
Fuel and lights.....	269 44
Furniture.....	10 75
Incidentals.....	50 15
Meteorological apparatus.....	12 15
Printing, stationery, and postage.....	263 00
Salaries.....	7,489 98
Seeds and trees.....	97 48
Tools and supplies.....	194 28
Wages and teams.....	3,962 85
Sundry experiments—	
Beet, wheat, and clover experiments.....	55 17
Dairying experiments.....	84 68
Nitrogen experiments.....	37 50
Columbian Exposition work.....	24 86
Total.....	\$15,070 00

## PAPER D—STATEMENT FOR QUARTER ENDING SEPTEMBER 30, 1893.

	Appropriated.	Expended.	Balances.
Buildings and repairs.....	\$25 00		\$25 00
Board expenses.....	40 00		40 00
Books and publications.....	50 00		50 00
Botanical apparatus.....	60 00		60 00
Bulletins.....	200 00		200 00
Chemical apparatus.....	170 00		170 00
Fuel and lights.....	60 00		60 00
Furniture and fittings.....	15 00		15 00
Incidentals.....	25 00	\$8 39	16 61
Meteorological apparatus.....		7 25	
Printing, stationery, and postage.....	25 00	3 13	21 87
Salaries.....	1,950 00	1,066 64	883 36
Seeds and trees.....	10 00		10 00
Tools and supplies.....	25 00	14 00	11 00
Wages and teams.....	1,150 00	537 75	612 25
Sundry experiments—			
Clover and wheat experiments.....	60 00		60 00
Dairying experiments.....	50 00		50 00
Columbian Exposition work.....	50 00		50 00
Nitrogen experiments.....	112 50	112 50	
Total.....	\$4,077 50	\$1,749 66	\$2,315 34

## PAPER E—ESTIMATES.

<i>For Quarter Ending Sept. 30, 1893.</i>		
Meteorological apparatus.....		\$20 00
<i>For Quarter Ending Dec. 31, 1893.</i>		
Buildings and repairs.....		25 00
Board expenses.....		40 00
Books and periodicals.....		250 00
Botanical apparatus.....		60 00
Bulletins.....		350 00
Chemical apparatus.....		175 00
Fertilizers.....		75 00
Fuel and lights.....		110 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.....		800 00
Sundry experiments—		
Dairying experiments.....		100 00
Wheat and other experiments.....		50 00
Nitrogen experiments.....		75 00
Drainage.....		200 00
Dairying and horticultural schools.....		250 00
Total.....		\$4,660 00

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 ending June 30, 1893, to the Governor of the State, and to the secretary of the treasury of the United States.

The board of direction has appointed Mr. E. H. Farrington a delegate to the convention of the Association of American Agricultural Colleges and Experiment Stations, to be held in Chicago, October 17th next.

Mr. E. K. Nelson has resigned his position as assistant chemist of the station, and his resignation has been accepted. The position has been filled by the appointment, for the remainder of the year, of Mr. W. A. Powers, who will enter upon his duties October 1, 1893, and will receive a salary of \$60 a month.

The policy which the trustees have decided to pursue with regard to the university farms makes it necessary that the relations between the University and the Station be readjusted.



The board of direction asks that the trustees of the University turn over to the Station, for use in its work, the whole of what is known as the "experiment farm," the Station to pay all expenses of its management, and to have the proceeds from sales of its products after the experiment purposes in their production or use have been completed; the sum secured by the sale of either animal or vegetable products to be expended, first in keeping the farm in good condition, making necessary repairs, or making minor improvements, and second in experiment work.

The board of direction also asks that the trustees turn over to the Station, for use in the work of the Station, the following named animals, farm implements, etc., now belonging to the University:

One gray mare—Bird. One bay gelding, four years old—Harry. One bay gelding, three years old—Sam. Two two-year-old draft colts—John and Barney. Two one-year-old draft colts—Bay and Black. Two suckling draft colts—a gray roan and a black. Two Shorthorn cows. Two Hereford cows. Two Holstein-Friesian cows. Two Jersey cows. Ten yearling steers. Ten steer calves. Twelve pigs. Two farm wagons. Three sets harness. One set light harness. One plow—New Deal. Three corn cultivators. One harrow. Two disk harrows or cultivators. One roller. One mower. One hay rake. One tread power. One feed cutter and carrier. The hay, straw, and grain in the experiment farm barn.

The board of direction expresses to the trustees of the University its willingness to unite with the college of agriculture in holding during November and December two agricultural schools, each to continue one or two weeks—one in the northern part of the State, to be devoted largely to stock and dairy interests; the other in the southern part of the State, to be devoted chiefly to horticultural interests.

In the estimates presented in Paper E above, is included an amount of \$250 to be used in defraying the necessary expenses of such members of the station staff as may attend these schools to give instruction, if such is held.

Respectfully submitted,

G. E. MORROW,

*President of the Board of Direction.*

The recommendations of both these reports meet my approval, and I ask for them your careful consideration.

Respectfully submitted,

T. J. BURRILL,

*Acting Regent.*

Mr. Raab moved a reference of the report to the several committees whose duty it was to consider the matters presented, and the motion was approved.

The finance committee made the following report, which was approved:

URBANA, ILL., September 12, 1893.

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

GENTLEMEN:—Your finance committee recommends the payment of the following bill:

University of Illinois,

To S. M. Millard,

Dr.

Aug. 2, 1893.

To consultation with committee as to bond of treasurer and examining bond, and written opinion; also giving direction as to form of new bond and examining and approving same..... \$100 00

Respectfully submitted,

ALEX. MCLEAN,  
F. M. MCKAY,  
J. E. ARMSTRONG, } *Finance Committee.*

The board then adjourned to meet in executive session at 9 o'clock p. m.

After the executive session, the board adjourned to meet at 8 o'clock a. m., Wednesday.

### SESSION OF WEDNESDAY MORNING.

The same members were present, when the board met pursuant to adjournment, as on Tuesday.

The treasurer's report was presented.

#### TREASURER'S REPORT.

CHICAGO, ILL., Sept. 11, 1893.

CHAS. W. SPALDING, TREASURER, IN ACCOUNT WITH THE UNIVERSITY OF ILLINOIS.

<i>Dr.</i>		
Aug. 5, 1893, to amount received from the state treasury on account of the following appropriations:		
<i>Appropriations to the University of Illinois—</i>		
For the payment of salaries, for additions to the library, museum and cabinets, for school apparatus, for material for the laboratories, for furniture, and for current repairs on buildings, the sum of.....		\$60,000 00
For the erection of an engineering building, the sum of.....		80,000 00
For furnishing Natural History Hall and the completion of the heating apparatus in the same, the sum of.....		6,000 00
For enlarging the boiler house and coal rooms at the central heating plant, and the purchase of two new boilers and setting the same, the sum of.....		6,500 00
<i>State Laboratory of Natural History—</i>		
For the field work and the office and incidental expenses, the sum of.....		1,500 00
For the improvement of the library, the sum of.....		1,000 00
For salaries and assistance, the sum of.....		3,500 00
For the publication of bulletins, the sum of.....		500 00
For the illustration of the biennial report of the state entomologist, the sum of.....		250 00
For colored drawings of the fishes of Illinois in illustration of the 3rd volume of the Natural History Survey of the State, the sum of.....		600 00
Amount received into the state treasury from the treasurer of the United States, the sum of.....		19,000 00
Aug. 23, '93, To amount received from John W. Bunn on endowment fund.....		\$178,850 00
" " " " amount received from assistant treasurer U. S. on Experiment Station fund.....		25,000 00
Sept. 1, '93, " " amount received from John W. Bunn on general fund.....		3,750 00
		5,000 00
		2,610 95
Interest on endowment fund to date, from Aug. 24, 1893, @ 4 per cent.....		47 22
Interest on all other funds to date, from Aug. 5, 1893, @ 2½ per cent.....		452 95
		<u>\$215,711 12</u>
<i>Cr.</i>		
Sept. 11, '93, By amount paid on account board expense.....	\$208 29	
" " " " salaries.....	3,461 98	
" " " " buildings and grounds.....	18 00	
" " " " stationery and printing.....	116 72	
" " " " mechanical department.....	21 23	
" " " " architectural department.....	251 20	
" " " " agricultural department.....	86 70	
" " " " military department.....	18 60	
" " " " laboratories.....	45 00	
" " " " incidental expenses.....	6 00	
" " " " heating.....	\$23 36	\$4,233 84
" " " " salaries on account of World's Fair.....	170 00	
Sept. 11, '93, By amount paid on account flowers.....	15 00	
" " " " furniture and fixture.....	46 56	
		<u>254 92</u>

*Treasurer's Report—Continued.*

<i>State Appropriations—</i>					
Sept. 11, '93,	By amount paid	on account	buildings and grounds.....	\$566 45	
"	"	"	State Lab. of Nat'l Hist'y.....	571 96	
"	"	"	Engineering Hall.....	1,100 90	
"	"	"	United States fund.....		\$2,230 41
"	"	"	Experiment Station fund.....		181 02
"	"	"	Exp. Station to W. L. Pillsbury..		1,386 69
					471 30
					\$8,766 18
Balances:	General fund.....			\$9,111 12	
	State appropriations.....			151,651 53	
	United States funds.....			18,818 98	
	Experiment Station funds.....			2,363 31	
	Endowment fund.....			26,000 00	\$206,944 94
					\$215,711 12

CHARLES W. SPAULDING, *Treasurer.*

On motion of Mr. McLean, the report was filed for record.

## APPOINTMENT OF INSTRUCTION.

The committee on instruction reported as to the appointments it had made as follows, and the report of the committee was approved.

URBANA, ILL., Sept. 13, 1893.

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

GENTLEMEN: Your committee on instruction, acting under authority given by the board, has made the following appointments:

Lester Paige Breckenridge, Ph.B., professor of mechanical engineering.....	\$2,000 00
For supervision of heating plant.....	250 00
William H. VanDervoort, M.E., assistant professor in mechanical engineering.....	1,500 00
Edgar J. Townsend, Ph.M., assistant professor of mathematics.....	1,400 00
James David Phillips, B.S., assistant in general engineering drawing.....	750 00
Charles Alexander Gunn, B.S., assistant in architecture.....	750 00
Alfred Holmes White, B.A., assistant in chemistry.....	750 00
Frederic William Richart, B.S., assistant in testing laboratory.....	700 00
William Esty, M.A., S.B., instructor in electrical engineering.....	1,000 00
Albert Root Curtiss, assistant in shops.....	750 00
Anita Margaret Kellogg, B.E., instructor in elocution, and physical culture for women.....	1,000 00
Arthur H. Daniels, Ph.D., instructor in philosophy.....	1,000 00
Nathan Austin Weston, B.L., assistant in preparatory school.....	750 00
Bernard Victor Swenson, B.S., assistant in physics.....	750 00
Clara Maude Kimball, instructor in music.....	300 00
H. E. Reeves, assistant in military.....	100 00

Respectfully submitted,

F. M. McKAY,  
HENRY RAAB,  
J. E. ARMSTRONG, } *Committee on Instruction.*

The finance committee made the following report, which was approved:

URBANA, ILL., Sept. 13, 1893.

*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 287, inclusive, paid by the treasurer during the year ending June 30, 1893, from the funds of the Agricultural Experiment Station, and has found their amount to be \$15,070, and that they have been properly cancelled.

The committee has also examined the vouchers, numbered from 210 to 282, inclusive, for the expenses of the station for the quarter ending June 30, 1893, and has found them correct and 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, 1893, to be \$15,070, and approves the same as correct.

Respectfully submitted,

ALEXANDER MCLEAN, }  
F. M. MCKAY, } *Finance Committee.*  
J. E. ARMSTRONG, }

The committee on instruction made the following report, which was approved :

URBANA, ILL., September 13, 1893.

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

GENTLEMEN:—Your committee on instruction, after consultation with the regent and the deans of the several colleges, begs leave to report the constitution of the faculty as follows :

The faculty shall be composed of the professors and assistant professors, and the heads of the departments.

Respectfully submitted,

F. M. MCKAY, }  
HENRY RAAB, } *Committee on Instruction.*  
J. E. ARMSTRONG, }

On motion of Mr. McKay, Mr. Raab, Mr. Armstrong, and the secretary were appointed a committee to look after receiving from the Illinois Board of World's Fair Commissioners such collections and other material as were to come to the University in accordance with the joint resolution of the General Assembly, passed June 7-15, 1893.

The finance committee made the following report, which was approved :

URBANA, ILL., September 13, 1893.

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

GENTLEMEN:—Your finance committee recommends that the following appropriations be made from the funds of the State Laboratory of Natural History for the six months ending Dec. 31, 1893 :

For the improvement of the library.....	\$1,000 00
For salaries and assistants.....	1,750 00
For the publication of bulletins.....	500 00
For illustration of the report of the state entomologist.....	250 00
For drawings of fishes.....	600 00

Respectfully submitted,

ALEX. MCLEAN, }  
F. M. MCKAY, } *Finance Committee.*  
J. E. ARMSTRONG, }

The executive committee made the following report :

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

GENTLEMEN:—Your executive committee, at a meeting held Aug. 16, 1893, Messrs. Graham and Bullard being present, transacted the following business :

From current funds \$500 was appropriated for board expenses.

From state appropriation for engineering hall \$100 was appropriated to meet expenses of advertisement for competitive designs and for bids from contractors.

For the purpose of making desired changes in the regent's office and the room west of it, so that they may be suitably fitted up for the use of the regent, the registrar, and the business agent, and for furnishing same; also for fitting up and furnishing rooms for the preparatory school in the basement of the west wing of University Hall, and for additional furniture needed in other class rooms the sum of \$1,300 was appropriated from current funds.

The committee also voted to establish the office of registrar.

The duties of the registrar shall be as follows:

1. The registrar shall have an office at the University and shall live in its vicinity. He shall keep his office open at such stated hours as his business may require.

2. It shall be the duty of the registrar to arrange for the examination of persons wishing to enter the University and to register those found qualified.

He shall have charge of registration of students of the University, shall keep all records of the attendance and standings of students, shall make out and sign matriculation papers and dismissal papers, and all other papers and reports required in the proper discharge of the duties of his office, and shall prepare for signature the diplomas conferred by the University.

He shall conduct the general correspondence with persons desiring to enter the University, or making inquiries as to admission and other similar matters. He shall also conduct the correspondence and keep the records concerning the accredited schools and honorary scholarships and accredited school scholarships and shall arrange for examinations as the rules concerning these scholarships may require.

W. L. Pillsbury was elected registrar, his term of service to begin Sept. 1, 1893.

The registrar was authorized to employ a clerk for his office at not to exceed \$45 a month.

A sum not exceeding \$300 from current funds was appropriated for fitting up a ladies' reception room in University Hall.

Respectfully submitted,

NELSON W. GRAHAM, }  
SAMUEL A. BULLARD, } *Executive Committee.*

The action taken by the executive committee was confirmed.

To carry into effect the action of the executive committee in the appointment of a registrar, it was voted to amend the by-laws of the board as follows:

Amend section 1, article 4, by striking out the word "and" before the words "recording secretary" and inserting after them the words "and a registrar."

Amend section 2, article 5, by striking out before the words "recording secretary" the word "and" and insert after them the words "and a registrar."

Insert after article 8 as article 8a the paragraphs in the foregoing report of the executive committee, which define the duties of the registrar.

On motion of Mr. Raab, the regent and the secretary were directed to make such changes in the "Rules for the Government of Students" as this appointment of a registrar makes necessary.

The secretary was directed to publish a new edition of the rules containing these changes and other changes heretofore made therein by the board of trustees.

It was moved to add \$500.00 to the salary of the secretary on account of the increase in his duties. An amendment was offered by Mr. Morrison, that the salary remain as at present, and the amendment prevailed.

On motion of Mr. McLean, it was made the duty of Professor Breckenridge to see that the machine borrowed from the Garvin Machine Co., of New York city, and the three machines borrowed from the Lodge & Davis Machine Tool Co., of Cincinnati, be returned to those corporations in good condition, at the expense of the University, as soon as the World's Columbian Exposition shall be closed.

The finance committee made the two following reports, which were received for record:

URBANA, ILL., September 13, 1893.

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

GENTLEMEN: Your finance committee presents the following receipt for the bond of the treasurer:

URBANA, ILL., September 12, 1893.

Received from Mr. Alex. McLean, chairman of the finance committee of the University of Illinois, the bond of Chas. W. Spalding, treasurer of the University of Illinois, for six hundred thousand dollars (\$600,000.00), for safe keeping.

S. W. SHATTUCK, *Business Agent.*

We desire that the receipt be made a matter of record, and that it be filed with the secretary of this board.

Respectfully submitted,

ALEXANDER MCLEAN, { *Finance Committee.*  
F. M. MCKAY, }

URBANA, ILL., September 13, 1893.

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

GENTLEMEN: Your finance committee presents the following report, prepared by the business agent, showing the sources of the University's endowment fund as the same exists to-day in bonds and cash:

UNIVERSITY OF ILLINOIS, September 12, 1893.

Amount received before sale of land.....	\$319,178 87
Received from sales of Nebraska lands, as per accompanying statement.....	98,352 24
Received from sales of Minnesota lands, as per accompanying statement.....	16,596 39
Total amount of endowment fund.....	\$434,127 50

S. W. SHATTUCK,  
*Business Agent.*

## STATEMENT OF COLLECTIONS OF PRINCIPAL TO AUGUST 31, 1893, ON NEBRASKA LAND CONTRACTS.

Contract number.	Amount received.	Contract number.	Amount received.
1.....	\$2,408 00	33.....	\$2,240 00
2.....	2,242 98	34.....	1,800 00
3.....	2,448 00	35.....	1,400 00
4.....	2,350 85	36.....	500 00
5.....	1,725 00	37.....	800 00
6.....	2,000 00	38.....	1,200 00
7.....	2,000 00	39.....	1,700 00
8.....	2,240 00	40.....	800 00
9.....	2,400 00	41.....	1,150 00
10.....	2,100 00	42.....	1,000 00
11.....	2,000 00	43.....	1,120 00
12.....	2,000 00	44.....	1,120 00
13.....	2,000 00	45.....	518 70
14.....	2,000 00	46.....	400 00
15.....	2,296 65	47.....	1,560 00
16.....	1,600 00	48.....	2,240 00
17.....	2,000 00	49.....	2,240 00
18.....	1,600 00	50.....	2,000 00
19.....	2,400 00	51.....	2,000 00
20.....	600 00	52.....	2,000 00
21.....	2,000 00	53.....	1,300 00
22.....	2,000 00	54.....	531 44
23.....	500 00	55.....	1,600 00
24.....	2,240 00	56.....	2,000 00
25.....	1,640 00	57.....	1,500 00
26.....	1,895 88	58.....	466 50
27.....	2,000 00	59.....	880 00
28.....	2,060 00	60.....	880 00
29.....	1,600 00	61.....	548 88
30.....	2,000 00	62.....	554 86
31.....	1,500 00		
32.....	514 50	Total .....	\$98,352 24

## STATEMENT OF COLLECTIONS OF PRINCIPAL TO AUGUST 31, 1893, ON MINNESOTA LAND CONTRACTS.

Contract number.	Amount received.	Contract number.	Amount received.
63.....	\$154 25	91.....	\$300 00
64.....	400 00	92.....	350 00
65.....	400 00	93.....	375 00
66.....	400 00	94.....	275 00
67.....	1,200 20	95.....	324 40
68.....	387 57	96.....	100 00
69.....	70 00	97.....	250 00
70.....	280 00	98.....	250 00
71.....	170 00	99.....	270 38
72.....	510 00	100.....	125 00
73.....	400 00	101.....	180 00
74.....	70 00	102.....	99 00
75.....	400 00	103.....	125 00
76.....	400 00	104.....	119 63
77.....	1,000 00	105.....	70 14
78.....	1,000 00	106.....	350 00
79.....	520 00	107.....	360 00
80.....	520 00	108.....	526 25
81.....	253 73	109.....	100 00
82.....	100 00	110.....	151 63
83.....	189 70	111.....	80 00
84.....	100 00	112.....	125 00
85.....	100 00	113.....	125 00
86.....	110 00	114.....	360 00
87.....	500 00	115.....	54 86
88.....	490 25	Sale to railway company .....	174 60
89.....	440 00		
90.....	500 00	Total .....	\$16,596 39

As further payments are made on those land contracts which have not been closed out they will be reported to the board.

Respectfully submitted,

ALEX. McLEAN, }  
F. M. MCKAY, } *Finance Committee.*

On motion of Mr. Morrison it was voted that the finance committee take, in its discretion, all necessary means to ascertain the exact balances of the several funds belonging to the University and report the same to this board at its next meeting.

The executive committee made the following report:

URBANA, ILL., September 12, 1893.

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

GENTLEMEN: We, the members of the executive committee, report that we examined into certain matters concerning Professor James D. Crawford, and after thoroughly satisfying ourselves, sent to him the following notice:

CHAMPAIGN, August 15, 1893.

*Professor James D. Crawford,*

DEAR SIR: The executive committee of the board of trustees of the University of Illinois deems it inadvisable to continue your services as professor in that institution. Your salary will be paid until the 1st of September next.

Yours very truly,

N. W. GRAHAM,  
S. A. BULLARD,  
N. B. MORRISON.

We ask the approval of the board upon our actions.

Respectfully submitted,

N. W. GRAHAM, }  
S. A. BULLARD, } *Executive Committee.*  
N. B. MORRISON, }

On motion of Mr. Morgan, the action of the executive committee was approved.

Mr. Bunn, the outgoing treasurer, made the following report, which was received and referred to the finance committee:

JOHN W. BUNN'S REPORT.

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

1893.		Dr.	
June	6	To balance.....	\$10,959 93
"	15	To interest on Morgan county bonds.....	\$1,400 00
"	15	Urbana school bonds.....	550 00
"	15	Montgomery school bonds.....	600 00
"	15	Homer school bonds.....	375 00
"	15	Champaign county school bonds.....	182 50
"	23	land contract No. 39, J. E. Blinkenstaff.....	750 00
July	1	Champaign county bonds.....	\$2,700 00
"	1	Pike county bonds.....	2,730 00
"	1	Logan county bonds.....	300 00
"	1	Macoupin county bonds.....	618 00
"	1	Gallatin county bonds.....	300 00
"	1	Sangamon county bonds.....	100 00
"	1	Pittsfield school bonds.....	630 00
"	1	Sangamon county school bonds.....	250 00
"	1	Montgomery county school bonds.....	195 00
"	1	Champaign county school bonds.....	160 00
"	1	Champaign county school bonds.....	50 00
"	1	Christian county school bonds.....	60 00
"	1	Kankakee county bonds.....	1,500 00
			\$10,043 00



*Treasurer's Report—Continued.*

July	1	To interest on Kankakee county bonds.....		\$900 00
"	11	" Sangamon schools bonds.....		250 00
August	1	" Champaign school bonds.....	630 00	
"	1	" Morgan county school bonds.....	600 00	
"	19	" Mattoon school bonds.....	150 00	
"	19	" Litchfield school bonds.....	440 00	
"	31	" Taylorville school bonds.....	1,200 00	
"	31	" Endowment fund.....		3,020 00
				1,055 00
				\$29,376 43
1893.		<i>Cr.</i>		
July	31	By amount paid board expenses.....	\$850 90	
"	31	" salaries.....	10,047 02	
"	31	" on account buildings and grounds.....	25 62	
"	31	" fuel and lights.....	227 60	
"	31	" stationery and printing.....	531 25	
"	31	" preparatory year.....	233 33	
"	31	" Minnesota lands.....	99 16	
"	31	" mechanical department.....	94 44	
"	31	" architectural department.....	483 08	
"	31	" agricultural department.....	154 99	
"	31	" horticultural department.....	27 32	
"	31	" military department.....	31 28	
"	31	" laboratories.....	110 65	
"	31	" library and apparatus.....	7 30	
"	31	" incidentals.....	114 97	
"	31	" water supply.....	\$275 00	
"	31	" World's Fair.....	31 19	
"	31	" collective exhibit.....	28 00	
"	31	" map of grounds.....	17 50	
"	31	" band.....	100 00	
"	31	" <i>Illini</i> subscription.....	77 79	
"	31	" military scholarships.....	75 00	
"	31	" music.....	33 70	
"	31	" music fees.....	78 00	
"	31	" commencement.....	187 81	
"	31	" buildings and grounds.....	\$606 29	
"	31	" taxes on Minnesota lands.....	1,381 79	
"	31	" mechan'l and architect'l shops.....	205 57	
"	31	" books and publications.....	76 54	
"	31	" apparatus and material.....	190 86	
"	31	" heating Military Hall.....	132 83	
"	31	" Engineering Hall.....	6 00	
"	31	" State Laboratory of Natural His ..	1,202 56	
"	31	" United States fund.....		3,801 94
"	31	By amount paid Charles W. Spalding, treasurer.....		2,720 64
				8,610 95
				\$29,376 43

URBANA, Sept. 12, 1893.

JOHN W. BUNN.

The committee on buildings and grounds made the following report:

## ENGINEERING HALL.

URBANA, ILL., September 12, 1893.

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

GENTLEMEN: Your committee on buildings and grounds begs leave to report in regard to the new engineering hall.

Immediately after the meeting of the board, July 5th and 6th, at which choice of a plan for the new engineering building was made, your committee began to follow out the instructions of the board in regard to necessary modification, of plans and the erection of the building.

We asked the members of the faculty of the college of engineering to study the plans one week and to be ready to suggest such modifications of them as their work seemed to demand.

On July 13th the committee met at the University and decided that the site of the building should be in the arboretum, midway between the

east line of the same, and the east line of the central avenue through the grounds, the front of the building to be fifty feet north of the north line of Green street.

After hearing the suggestions of the members of the faculty of the college of engineering, some minor changes of rooms were made, and we decided to modify the plans by making the height of the basement floor one foot above the sidewalk grade of Green street; and to grade on north side of the building to the height of the basement floor line, letting the earth slope on the sides to the north as the nature of the ground seemed to justify.

We also decided, if possible to do so with our limited means, to enlarge the rear or north end of the building eight or ten feet.

We further decided to prepare an elevator shaft, which might be used at some future time, if thought best.

It was thought that these changes would make considerable increase in cost, but that they could better be made now than at any other time.

Full instructions were sent to Mr. George W. Bullard, architect, and author of the design, whom the committee employed as architect, with directions to have specifications and working drawings completed by Aug. 20th.

The architect, in making drawings and specifications, decided that it was better to specify that the plumbing be put into this contract and so specified it. The amount of plumbing was not included in the estimates for the original building.

We ordered six sets of plans, of which two sets were sent to the Builders' and Traders' Exchange, Chicago; one to the Builders' Exchange, and one to the Truesdale Manufacturing Co., Peoria; one was put in the office of the chairman of the committee, Springfield, and one in the office of the secretary of the board, in Urbana.

We advertised for proposals for several days in four Chicago, two Peoria, and two Springfield dailies, one daily and two weekly papers in Champaign and Urbana, and in the American Contractor for two weeks.

Bids were to be received up till 12 o'clock, noon, Monday, Sept. 11, 1893.

The "Instructions to Bidders" is here inserted and made part of this report:

#### UNIVERSITY OF ILLINOIS—INSTRUCTIONS TO BIDDERS.

Sealed proposals will be received by the committee on buildings and grounds of the trustees of the University of Illinois till 12 o'clock, noon, of Monday, Sept. 11, 1893, for the erection and completion of an engineering building for the University of Illinois, in Urbana, Ill., according to the drawings and specifications for the same, which may be seen at the Builders' and Traders' Exchange, 34 Clark street, Chicago, Ill.; at the office of the Truesdale Manufacturing Co., 301 N. Water street, Peoria, Ill.; at the office of S. A. Bullard, Springfield, Ill., and at the office of W. L. Pillsbury, in Natural History Hall, Urbana, Ill.

Payments will be made every month on estimates of the architect, fifteen per centum being reserved till the final acceptance of the building.

The successful bidder will be required to furnish a bond, to be approved by the board of trustees, in the amount of one-third of his contract, conditioned on the proper fulfillment of his contract, and each bidder will file with his proposal a certified check, in the amount of one thousand dollars, drawn to the order of the treasurer of the University of Illinois, as a guarantee that he will furnish bondsmen and enter into a contract according to his proposal within six days, should the contract be awarded him.

The contractor will be required to be fully responsible for the building, without any expense to the owners, till the building is completed and is accepted by the owners.

The pressed brick may be estimated at \$16.00 per thousand, f. o. b. cars at Champaign or Urbana, and molded brick at \$15.00 per thousand less than the list.

Proposals will be filed with W. L. Pillsbury, secretary of the board of trustees, Urbana, Ill., and will be opened in the presence of bidders.

The committee reserves the right to reject any and all proposals.

SAMUEL A. BULLARD, }  
N. B. MORRISON, } *Committee.*  
RICHARD P. MORGAN, }

Urbana, Ill., August 22, 1893.

As the full committee could not meet at the hour for opening bids, the chairman of the committee, through the secretary, Mr. Pillsbury, received the proposals, fifteen in number, and adjourned the meeting to 3 o'clock that afternoon.

At that hour, with only himself of the committee present, but in the presence of the president of the board and with the assistance of the secretary of the board, the chairman opened the proposals, in the presence of the bidders.

One of the proposals was informal, not having a check enclosed as per instructions, and was laid aside.

The fourteen proposals presented were as follows:

Name.	Place.	Amount.
Peter Kinney & Son.....	Peoria.....	\$176,000 00
Valentine Jobst.....	".....	154,225 00
Hanes & Ohlson.....	Springfield.....	157,335 00
Frederick W. Menke.....	Quincy.....	164,248 00
Benjamin Hyde.....	Chicago.....	144,000 00
Beverforden & Stillwell.....	LaFayette, Ind.....	143,509 00
S. S. Goehring.....	Tuscola.....	148,987 00
L. L. Leach & Son.....	Chicago.....	166,983 00
Donaldson & Anderson.....	".....	144,958 00
Chas. A. Moses.....	".....	149,650 00
L. M. Moore & Son.....	Danville.....	147,697 00
C. F. Shultz & Co.....	".....	154,670 00
John Griffiths.....	Chicago.....	175,000 00
Murdoch, Campbell & Co.....	".....	166,377 00

The chairman announced to the bidders present that the proposals were above the amount that could be expended for the building; that the committee would consider them, report them to the board with their recommendations, and that the action of the board in the matter would be reported to the competitors. Also that their checks would be returned in due time.

Your committee recommends that all proposals be rejected, and that further proposals be sought; and, if necessary, that the building be reduced in cost to make it come within the amount of money we have to expend on it.

Your committee recommends that Professor Ricker be paid \$50 for his services as expert in deciding upon plans for the building.

Respectfully submitted,

S. A. BULLARD, }  
RICHARD P. MORGAN, } *Committee on*  
*Buildings and Grounds.*

#### MINORITY REPORT ON SITE.

Mr. Morrison, of the same committee, while agreeing to other matters of the report, made a minority report upon the site as follows:

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

GENTLEMEN: The minority of your buildings and grounds committee, to which was referred the location of the new engineering building, begs leave to submit the following report:

The site selected by the majority of said committee is open to many and serious objections, among which I desire to call your attention to the following:

(1.) The ground selected is too low, the lowest point being 14½ feet below University Hall.

(2.) The ground being uneven, the walls of the building will be of unequal height, which will cause unequal pressure and unequal settling.

(3.) The rear or heaviest wall will have to be erected upon a foundation of quicksand, which underlies all that portion of the site selected near Boneyard Creek.

(4.) The site selected involves the destruction of our elegant park that is now clothed with beautiful shade trees, and has been brought to its present condition by great care, skill, labor, and expense.

(5.) This building, if erected on the site selected, will be on the line of the proposed sewer which we hope will soon be build for the safety of the University of Illinois and the cities of Champaign and Urbana; and the State of Illinois can ill afford to place any obstruction in the way of that enterprise.

(6.) The building, if erected on the proposed site, cannot be seen from the Illinois Central Railroad, or from either of the two near cities, and we should thereby lose the benefit of imposing architecture for advertising purposes.

(7.) The occupancy of this site will necessitate a separate heating plant, or the removal of the present one at great expense, and will thus cause a further destruction of the Arboretum.

These are some of the objections to the selected site, any one of which ought to arrest the attention of this board and secure a careful investigation.

The minority of your committee would recommend, as his first choice of location for the engineering building, a site 300 feet south and 50 feet west from the southwest corner of University Hall, fronting Daniel street, which street would approach the center of the building. The ground at this point is as high as at University Hall, and the building on this site would command a fine view from the Illinois Central Railroad, and from the cities of Champaign and Urbana. It could be readily warmed from our present heating plant with small expense. Further, the University of Illinois has large landed interests in this direction that would be enhanced in value by the selection of this location.

As a second choice, the minority of your committee would advise the location of this building on the military campus, fronting Stoughton street, where the ground is a little higher than at University Hall, and where it would command an equally fine view from all directions.

All of which is respectfully submitted,

N. B. MORRISON,

*Member of Committee on Buildings and Grounds.*

The board adjourned to meet at 2:30 o'clock p. m.

#### AFTERNOON SESSION.

The board was called to order pursuant to adjournment.

The farm committee made the following report:

URBANA, ILL., September 13, 1893.

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

GENTLEMEN: Your farm committee begs leave to report in reference to the transfer of lands, stock, and utensils to the Experiment Station, that, time being limited, we desire to postpone the matter until the next regular meeting of this board.

Respectfully submitted,

N. B. MORRISON,

ALEX. MCLEAN,

ISAAC S. RAYMOND,

} *Farm Committee.*

The report of the committee was approved.

The finance committee made the following report:

URBANA, ILL., September 13, 1893.

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

GENTLEMEN: Your finance committee recommends that, complying so far as practicable with the requests made by men in charge of the several departments of the University, the following appropriations be made:

To the geological department.....	\$300 00
To the department of physics.....	400 00
For publications relating to political science.....	150 00
For mechanical engineering shops.....	3,000 00
For department of physiology.....	130 00
For department of zoölogy.....	1,000 00
For chemical department.....	490 00
For department of physical culture for women.....	210 00
For college of literature.....	200 00
For department of civil engineering.....	950 00
For department of municipal engineering.....	700 00
For department of architecture.....	500 00
Total.....	\$8,000 00

Respectfully submitted,

ALEX. MCLEAN,  
J. E. ARMSTRONG, } *Finance Committee.*  
F. M. MCKAY,

Appropriations were made as the committee recommended.

Mr. Swenson's bill for \$38.39 for service rendered at the World's Columbian Exposition was ordered paid.

The appointment of Mr. Farrington, as a delegate to the Association of American Agricultural Colleges and Experiment Stations, was approved.

Also the appointment of Mr. W. A. Powers, as assistant chemist to the Station.

The appropriations from station funds were made for the use of the Station in accordance with estimates presented in paper E of the station report.

Mr. Raymond was appointed a delegate to represent the University at the meeting of the Association of American Agricultural Colleges and Experiment Stations, to be held in Chicago, in October next.

The farm committee presented the following statement of sales, which was received for record:

URBANA, ILL., September 12, 1893.

Sales of cattle from the farm have been made in the six months, including August 31, 1893, as follows:

March.....	10 pigs.....	\$141 36
".....	2 heifers.....	64 68
April.....	5 horses and colts.....	510 00
".....	4 cows and heifers.....	175 00
".....	4 steers.....	177 37
".....	12 hogs.....	158 31
May.....	1 cow and balance on steers.....	54 10
June.....	1 bull and 1 hog.....	52 50
July.....	1 hog and 1 cow.....	30 60
August.....	9 heifers and 1 steer.....	247 20
-.....	Total.....	\$1,611 12

S. W. SHATTUCK,  
*Business Agent.*

## CEMENT WALKS.

The committee on buildings and grounds made the following report :

URBANA, ILL., September 13, 1893.

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

GENTLEMEN:—Your committee on buildings and grounds invited three parties in Chicago, one in Decatur, one in Peoria, and three in Springfield to present bids for putting in cement walks, as authorized at your meeting of June 6.

In response to these invitations bids were received as follows :

Simpson Bros., Chicago, 18 cents per sq. ft., for 4-inch stone, 3½ inches concrete, and ½ inch cement and torpedo gravel.

A. W. Bushnell, Peoria, 17½ cents per sq. ft., for 4-inch stone made according to formula for "asbestine" stone.

E. L. Martin, Decatur, 15 cents per sq. ft., for 4-inch stone, 3 inches concrete, 1 inch cement and sand.

P. E. Taintor, Springfield, 15 cents per sq. ft., for 4-inch stone, 3 inches concrete, 1 inch cement and sand.

Granolithic Pavement Company, Springfield :

1. 4-inch stone, 3 inches concrete, 1 inch cement and sand, 13 cents per sq. ft.
2. 5-inch stone, with 4 inches concrete, top as above, 15 cents per sq. ft.
3. 4-inch stone, 3 inches concrete, 1 inch of cement and fine granite, 17 cents per sq. ft.
4. 5-inch stone, with 4 inches concrete, top as above, 18 cents per sq. ft.

All these bids were put in on the basis that the foundations were to be put in by the University.

The committee voted to accept the second proposition of the Granolithic Pavement Company, and the chairman of the committee, Mr. Bullard, was authorized to make the contract with them on the following terms :

Four inches concrete to be one part best Portland cement, two parts clean coarse sand, and five parts clean coarse gravel.

The top to be one part best imported Portland cement and one and one-half parts clean sharp sand.

The whole work to be done and the grounds to be cleaned up on or before September 9, 1893.

An approximate estimate of this work is that it will cost \$900.

It has also been found necessary, because of the fitting up of rooms for the preparatory school on the first floor of the west wing of the University Hall, to make a walk from the west door of the University Hall to Wright street.

This will add, including the cost of foundations of all the walks, about \$234.

It is also necessary to put in walks four feet in width from the east door and south door of University Hall to the water closets, and it is estimated that these will cost, including foundations, \$300 more, making a total of \$1,435.

The board has already appropriated \$1,100 for cement walks, and your committee asks that an additional appropriation of \$400 be made.

Respectfully submitted,

S. A. BULLARD,	} Committee on	
N. B. MORRISON,		
R. P. MORGAN		
		Buildings
		and Grounds.

The report was approved and the appropriation asked for was made.

On motion of Mr. Morgan, it was voted to subscribe for 400 copies of the *Illini*. This matter was put in charge of the committee on publication.

Mr. Morgan, from the special committee appointed at the June meeting to consider what it was desirable to do for the welfare of the young women of the University, made an informal report of progress.

The committee on buildings and grounds made the following report:

URBANA, ILL., Sept. 13, 1893.

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

GENTLEMEN: As directed by the board, your committee on buildings and grounds had ordered the work of putting into proper condition closets for men to be done at an expense of \$2,500, which sum we ask you to appropriate.

We have also ordered fitting up a toilet room for the faculty, and ask an appropriation of \$350.

The work of fitting up rooms in the preparatory school in the lower floor of the southwest wing of University Hall will cost \$440, and the board is asked to appropriate \$40 in addition to the \$400 already appropriated therefor.

The work of fitting up the business agent's and the registrar's office has been done at an expense of \$200, the amount which was appropriated therefor.

Your committee was directed to put in dumb waiters in the chemical laboratories and to fit up a store room in the basement of the Chemical Laboratory. This work has been done, and the board is asked to appropriate \$700 therefor. Five additional desks have been ordered for the chemical laboratories at a cost of \$550, which sum you are asked to appropriate.

The improvements ordered, to provide for additional classes in Natural History Hall, have been nearly completed, at a cost of \$190, and an appropriation of this sum is needed.

The repairs on the ladies' toilet room have been made at an expense of \$150; an appropriation of this amount is recommended.

Some work in the rooms of the free-hand drawing classes, which has been asked for, will cost \$100. We recommend an appropriation of this amount in order that the work may be done.

We also ask for \$40 to make needed improvements in the music room.

Your committee has employed Mr. S. P. Sutton, at \$125 a month, to take charge of the work intrusted to the committee, and we ask your concurrence in this action.

We also employed Mr. J. M. White to take charge of the architectural work for the committee, and we recommend that his bill of \$185 for his services be paid.

Respectfully submitted,

S. A. BULLARD,	} Committee on
N. B. MORRISON,	
RICHARD P. MORGAN,	
	Buildings
	and Grounds.

The report of the committee was approved and the appropriations were made as therein asked.

The committee on instruction reported recommending the appointment of Mr. Frank Smith, M.A., to be assistant in zoölogy, salary \$1,000, for ten months.

The report was approved, on motion of Mr. Morgan.

The report of the committee on buildings and grounds with reference to choice of site for the new building, advertising for bids, opening bids, etc., was then taken up.

On motion of Mr. McLean, the report was approved, except with reference to choice of site, and the appropriation of \$50 to pay Professor Ricker, was made.

Mr. Bullard, chairman of the committee on buildings and grounds, made the following report, and moved that its recommendations be adopted:

URBANA, ILL., September 13, 1893.

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

GENTLEMEN: Your committee on buildings and grounds begs leave to make further report as follows:

The informal proposal received by this committee for the erection of the new engineering building, referred to in the previous report, reads as follows:

TACOMA, WASH., August 30, 1893.

*To the Honorable Board of the Illinois State University.*

GENTLEMEN: We, the undersigned, will construct the college of engineering building in a workmanlike and satisfactory manner, according to the plans and specifications drawn by George W. Bullard, architect, and will give satisfactory bonds for the completion of the same, for the sum of one hundred and sixteen thousand seven hundred and ninety-four dollars (\$116,794.00).

Respectfully submitted,

GRIBBLE & SHURZ.

P. S.—The above bid includes plumbing throughout.

G. & S.

TACOMA, WASH., August 30, 1893.

*To the Honorable Board of the Illinois State University.*

GENTLEMEN: Mr. Bullard, your architect, could not inform us of the conditions on which our bid had to be submitted, so in case we should be low, we would refer you to the banks mentioned below, or we can telegraph you a certified check, if necessary.

Metropolitan Savings Bank, Tacoma, Wash.

Pacific National Bank, Tacoma, Wash.

Yours respectfully,

GRIBBLE & SHURZ.

The gentlemen making this proposal sent it before they had received "Instructions to bidders," sent out by this committee, but have since received it. After it appeared to your committee that none of the bids received in due form were sufficiently low, and that they must all be rejected, the chairman of your committee sent the following telegram to Messrs. Gribble & Shurz.

URBANA, ILL., September 12, 1893.

*Gribble & Shurz, Tacoma, Wash.*

GENTLEMEN: Your bid appears low. Are you satisfied with it? If so, wire check for one thousand dollars to-day, and bid will be considered.

S. A. BULLARD,

*Chairman of Committee.*

In reply to this, the same day, we received the following telegram:

TACOMA, WASH., September 12, 1893.

*To S. A. Bullard, Chairman University of Illinois Building Committee.*

We are ready to qualify. Certified check sent to-day by Pacific National Bank.

GRIBBLE & SHURZ.



The treasurer of the University received the following telegram:

TACOMA, WASH, September 12, 1893.

*To the Treasurer of University of Illinois.*

We send you to-day certified check to your order for \$1,000 as guaranteed for Gribble & Shurz, bidders on engineering building.

L. R. MANNING, *Cashier.*

The secretary of the board received the following telegram:

*W. L. Pillsbury, Secretary Board of Trustees, University.*

If necessary, we will guarantee Gribble & Shurz' certified check for one thousand dollars, sent by Pacific National Bank to treasurer University of Illinois.

#### METROPOLITAN SAVINGS BANK.

Your committee understands from these telegrams that these gentlemen make a further proposition to stand by their proposal, and guarantee that with a certified check to the amount of one thousand dollars.

We, therefore, recommend that this board adjourn, when it adjourns, to meet in two weeks; that Gribble & Shurz be notified that we accept their proposal, and that they be ready with their bond to enter into contract for the erection of engineering hall at that time.

Respectfully submitted,

S. A. BULLARD, } *Committee on*  
N. B. MORRISON, } *Buildings and Grounds.*

Mr. McLean offered as a substitute for this motion that the committee on buildings and grounds be directed to readvertise, as soon as possible, for bids for the construction of Engineering Hall.

On the question of the adoption of the substitute, the ayes and noes were called with the following result: Ayes, Raab, McKay, McLean, Morgan, and Raymond. Noes, Bullard, Graham, Morrison, and Armstrong. And the substitute prevailed.

On motion of Mr. McLean, it was voted that the board adjourn, when it adjourns, to meet at noon, October 5, 1893.

The question of a site for the new building was then taken up, and it was moved that the minority report with regard to site be substituted for that of the majority report.

On this motion the ayes and noes were called with the following result: Ayes, Raab, Graham, and Morrison. Noes, McKay, McLean, Bullard, Morgan, Armstrong, and Raymond. The substitute was lost.

The recommendation of the committee with regard to the site was then approved.

On motion of Mr. Armstrong, it was voted that the regent be requested to direct the janitor to have the street crossings on the north, northwest, and west of University Hall kept clean.

On motion of Mr. Raymond, it was voted that the buildings and grounds committee should, in its discretion, move the house in the arboretum to the south farm, if found practicable.

The president, Mr. Graham, being obliged at this time to return home, called Mr. McLean to the chair.

#### BUSINESS AGENT'S REPORT.

The business agent then made the following report:

URBANA, ILL., September 12, 1893.

*N. W. Graham, President Board of Trustees, University of Illinois.*

SIR: I have the honor to hand you herewith the following financial statements:

Paper A is a showing of the current appropriations for three months ending August 31, 1893.

Paper B gives the condition of the state appropriations August 31, 1893.

Paper C and C 2nd gives the condition of the United States fund August 31, 1893.

Paper D is a list of vouchers presented for audit, being 676 to 1050 inclusive.

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

Paper F is an estimate for the three months ending December 1, 1893.

PAPER A—CURRENT APPROPRIATIONS.

Sept. 13 and Nov. 15, 1892.	Appropriated.	Receipts also appropriated.	Expended.	Balance.
Board expenses.....	\$1,303 65		\$1,098 56	\$205 09
Salaries for instruction.....	13,803 33		13,773 57	29 76
Salaries for services.....	834 91		827 08	7 83
Buildings and grounds.....	400 00	\$30 00	97 63	332 37
Fuel and lights.....	1,500 00	30 00	229 35	1,300 65
Stationery and printing catalogues, etc.....	1,750 00		985 20	764 80
Preparatory school.....	233 33		233 33	
Minnesota lands.....	105 10	40 00	99 16	45 94
Mechanical department.....	200 00	13 97	175 60	38 37
Architectural department.....	400 00	786 38	816 51	369 87
Agricultural department.....	50 00	963 93	268 05	745 88
Horticultural department.....	50 00	212 60	49 84	212 76
Military department.....	167 00		58 40	108 60
Laboratories.....	200 00	775 23	376 65	608 58
Library and apparatus.....	50 00		23 68	26 32
Incidentals.....	200 00		175 91	24 09
<i>Sundries.</i>				
Water supply.....	275 00		275 00	
Furniture and fixtures.....	500 00		225 07	274 93
Gymnasium.....	49 22			49 22
Military scholarships.....	90 00		75 00	15 00
Accredited school diplomas.....	135 00			135 00
Commencement.....	200 00		202 81	
University bulletins.....	100 00			100 00
<i>Illini</i> subscriptions.....	93 34		77 79	15 55
Music and band.....	235 00		133 70	101 30
Map of University grounds.....	25 00		17 50	7 50
Furnishing Natural History Hall.....	86 77			86 77
Art department.....	113 96			113 96
World's fair exhibit.....	378 69		229 19	149 50
University extension.....	75 00			75 00
Drainage.....	100 00			100 00
Offices and preparatory school rooms.....	1,000 00			1,000 00
Ladies' reception room.....	300 00			300 00
Music fees.....		78 00	78 00	
Heating.....			27 65	

PAPER B—STATE APPROPRIATIONS.

	Received.	Expended.	Balance.	Assigned.
Cabinets.....	\$500 00	\$246 12	\$253 88	\$253 88
Taxes on Minnesota lands.....	1,381 79	1,381 79		
Furnishing and heating Natural History Hall.....	6,000 00	56 20	5,943 80	5,943 80
Boilers and coal house.....	6,500 00		6,500 00	6,500 00
Engineering building.....	80,000 00	1,129 45	78,870 55	70 55
Municipal engineering.....	50 00		50 00	50 00
Department of Greek.....	100 00	10 00	90 00	90 00
Psychological laboratory.....	800 00	32 37	767 63	767 63
Chemical.....	500 00		500 00	500 00
Botanical.....	200 00	26 81	173 14	173 19
Binding books.....	175 00		175 00	175 00
Architectural cabinets.....	175 00	15 61	159 40	159 40
Buildings and grounds.....	2,100 00	1,190 66	909 34	909 34
Library.....	5,000 00		5,000 00	5,000 00
Unassigned of \$60,000.....	50,900 00		50,900 00	
Total.....	\$154,381 79	\$4,089 00	\$150,292 79	\$20,592 79
Illinois State Laboratory of Natural History.....	\$8,563 26		\$8,563 26	\$833 66

## 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	1,903 88	\$96 12	\$96 12
Total .....	\$15,000 00	\$14,903 88	\$96 12	\$96 12
<i>Year Ending June 30, 1891.</i>				
Before reported on .....	\$14,510 00	\$14,510 00		
Architectural department .....	1,430 00	1,379 53	\$50 47	\$50 47
Geological laboratory .....	60 00	45 86	14 14	14 14
Total .....	\$16,000 00	\$15,925 39	\$64 61	\$64 61
<i>Year Ending June 30, 1892.</i>				
Before reported on .....	\$14,750 00	\$14,750 00		
Library .....	2,000 00	1,818 62	\$181 38	\$181 38
English literature .....	150 00	30 23	119 77	119 77
Metallurgical laboratory .....	100 00		100 00	100 00
Total .....	\$17,000 00	\$16,598 85	\$401 15	\$401 15
<i>Year Ending June 30, 1893.</i>				
Salaries for instruction .....	\$15,650 00	\$15,650 00		
Mining engineering .....	50 00	47 59	\$2 41	\$2 41
Agricultural lectures .....	250 00	48 95	201 05	201 05
Mechanical department .....	400 00	400 00		
Veterinary department .....	40 00	29 15	10 85	10 85
Testing laboratory .....	40 00	25 38	14 62	14 62
Physics and electricity .....	800 00	800 00		
College of engineering .....	216 50	45	216 05	216 05
Architectural department .....	264 00		264 00	264 00
Civil engineering .....	245 00	93 09	151 91	151 91
Unassigned .....	44 50		44 50	
Total .....	\$18,000 00	\$17,094 61	\$905 39	\$860 89
<i>Year Ending June 30, 1894.</i>				
Physics and electrical engineering .....	\$4,000 00	\$2,815 88	\$1,184 12	\$1,184 12
Testing laboratory .....	1,700 00		1,700 00	1,700 00
Unassigned .....	13,300 00		13,000 00	
Total .....	\$19,000 00	\$2,815 00	\$16,184 12	\$2,884 12

The board is requested to appropriate the amounts given under the head of expenses in Paper E for the purposes named.

I also enclose several bills which the board is requested to act on.

The attention of the board is also drawn to the fact that the records do not show any appropriations for a large amount of changes and repairs now going on. For instance, heating, water closets, changes in the chemical laboratory.

Respectfully submitted,

S. W. SHATTUCK,

*Business Agent.*

The following appropriations were made as recommended by the business agent:

## APPROPRIATIONS.

Board expenses.....	\$500 00
Salaries for instruction and regent.....	19,800 00
Salaries for services.....	2,467 05
Buildings and grounds.....	400 00
Fuel and lights.....	2,000 00
Stationery, printing, and postage.....	600 00
Laboratories.....	400 00
Library and apparatus.....	50 00
Incidentals.....	200 00
Water supply.....	125 00
Furniture and fixtures.....	500 00
Mechanical, architectural, agricultural, and horticultural departments.....	700 00
Military department.....	150 00
Heating apparatus.....	500 00
Accredited schools diploma, balance.....	135 00
Offices and preparatory school, balance.....	1,000 00
University bulletins, balance.....	160 00
Ladies' reception room, balance.....	300 00
Music and piano, balance.....	100 00
Drainage, balance.....	100 00
Minnesota lands, balance.....	45 94
Art department, balance.....	113 96
World's Fair exhibit, balance.....	149 50
Gymnasium, balance.....	49 22
Total.....	\$30,686 12

Mr. Bunn's bill, \$493.11, for money paid as accrued interest on bonds purchased was ordered paid.

Dr. Burrill's bill, amounting to \$53.45, for expenses attending board and committee meetings, was ordered paid.

Bills amounting to \$93.13, for machines furnished by Schaeffer & Budenberg for the mechanical department, were ordered paid,

Professor Baker's bill of \$6 for railroad fare in attending meeting of the committee on buildings and grounds, was ordered paid.

The sum of \$200, or so much thereof as might be needed, was appropriated from state appropriation for Engineering Hall, to be used in the preparation of blue prints and in advertising the second bidding.

Professor C. M. Moss was appointed librarian.

The board then adjourned to meet at the University Parlor, in Urbana, at noon, October 5, 1893.

N. W. GRAMAM,

*President.*

W. L. PILLSBURY,

*Secretary.*

### ADJOURNED SESSION, OCTOBER 5, 1893.

The Board of Trustees of the University of Illinois met pursuant to adjournment in the University Parlor, in Urbana, at 12 o'clock, noon, Thursday, October 5, 1893. There were present Messrs. Bullard, Graham, and Raab; Mr. Raymond came in a few minutes after the board was called to order. Those absent were Governor Altgeld, Messrs. Armstrong, Bryant, Gore, McKay, McLean, Morgan, and Morrison.

The secretary handed in the bids which he had received for the erection of Engineering Hall. These were opened and were found to be as follows:

Thomas H. O'Neill, St. Louis, Mo. ....	\$139,500
E. H. McGaffey, Indianapolis, Ind. ....	136,300
Thomas Clark & Sons, Chicago. ....	143,000
Gribble & Shurz, Tacoma, Wash. ....	119,379
L. M. Moore & Son, Danville, Ill. ....	123,697
Murdoch, Campbell & Co., Chicago. ....	138,300
C. Everett Clark, Chicago. ....	166,732
Donaldson & Anderson, Chicago. ....	132,365
John W. Evans & Son, Bloomington, Ill. ....	142,000
C. F. Schultz & Co., Danville. ....	121,396
Jungclauss & Schumacher, Indianapolis, Ind. ....	159,000
T. J. Morsee, Indianapolis, Ind. ....	134,900
McSorley & Bayor, Chicago. ....	124,899
Benjamin Hyde, Chicago. ....	123,000
Beverforden & Stillwell, LaFayette, Ind. ....	133,132
S. S. Goehring, Tuscola, Ill. ....	127,333
Ora C. Pierson, Indianapolis, Ind. ....	123,485

There being no quorum present, the board adjourned to meet at 3 o'clock p. m.

### AFTERNOON SESSION.

When the board met pursuant to adjournment, Messrs. McLean, Morgan and Morrison were present, in addition to those who were present at the meeting at noon.

Leave was given the committee on instruction to add to its report of September 13 (page 69) the following: "H. E. Reeves, assistant in military science, for ten months, \$100; Cleaves Bennett, assistant librarian for the year beginning September 1, 1893, \$1,000."

On motion of Mr. Raab, it was voted to take up the bids for the erection of Engineering Hall.

When these had all been read, they were, on motion of Mr. McLean, referred to the committee on buildings and grounds, with the instruction to report at its earliest convenience.

The committee on buildings and grounds made the following report :

URBANA, ILL., October 5, 1893.

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

GENTLEMEN: Your committee on buildings and grounds, after full consideration of the bids referred to it, decides that Schultz & Co., of Danville, Illinois, is the most desirable responsible bidder for the Engineering Hall, and recommends that a contract be made with said firm in accordance with the plans and specifications.

Respectfully submitted,

N. B. MORRISON,	} Committee
RICH. P. MORGAN,	
S. A. BULLARD,	
	on
	Buildings and Grounds.

The report of the committee was adopted, on motion of Mr. McLean.

Mr. McLean offered the following resolution, which was adopted :

*Resolved*, That the committee on buildings and grounds and the president of this board are hereby authorized to enter into, and sign, the necessary contracts with Messrs. Schultz & Co., of Danville, Illinois, to whom has been awarded, this day, the contract of building the Engineering Hall, and to approve the necessary bonds to be executed by said Schultz & Co.; said committee also to have full control of the erection of said building in providing for the superintendence of the same, and to report its action to this board at its next regular meeting,

or at such other time previous thereto as may be found necessary; the committee having authority to call a meeting of the board, on the usual notice, through the secretary.

The proposition of Mr. Kinley with regard to the publication of a journal of sociology was referred to the committee on instruction.

The committee on instruction made the following report:

URBANA, ILL., October 5, 1893.

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

GENTLEMEN: Your committee on instruction recommends that one of the instructors of the University be made the teacher of a class in preparatory Latin.

Respectfully submitted,

F. M. MCKAY, } *Committee*  
HENRY RAAB, } *on Instruction.*

The report was approved, on motion of Mr. Morgan.

The secretary, who had presented a summary of the students in attendance, was requested to present the next morning a statement showing how many classes and students were in the charge of each instructor.

The board then went into executive session, after which it adjourned to meet at 8 o'clock p. m., at the Doane House, in Champaign.

### EVENING SESSION.

The board met pursuant to adjournment.

An additional appropriation of \$125 was made to defray the expenses of preparing the plans and specifications for Engineering Hall and of advertising for bids.

The following resolution, offered by Mr. McLean, was adopted:

WHEREAS, The University of Illinois is entitled to receive arms from the war department, and there have been assigned by the secretary of war three hundred Springfield rifles, with the necessary accoutrements and arm chests, also two 6-pounder bronze guns, with carriages and all necessary accoutrements belonging thereto: and

WHEREAS, The secretary of war has demanded a bond, to be executed by the University, with two additional sureties, each in the sum of \$13,772.84, for the safe keeping of said above described arms, guns, etc., and as a guarantee of their return in good condition when ordered by the secretary of war, or such authority as may lawfully require it; and

WHEREAS, Said above described arms and guns and accoutrements are now ready to be delivered and are needed for immediate use by the University, therefore be it

*Resolved.* By the Board of Trustees of the University of Illinois, that the president and secretary of said board, be and are hereby authorized and directed to execute, in behalf of the University, such bond as may be required by the secretary of war, and that they attach the seal of the University to said bond and obtain the additional sureties required by the secretary of war; said bond, when duly executed, to be forwarded to the secretary of war.

Without making a formal report, the regent, Dr. Burrill, then presented some requests for appropriations, and in regard to other matters.

The matter of leasing ground to the Christian associations of the University was referred to a committee consisting of Dr. Burrill and Messrs. Morgan and McLean, for report at the next regular meeting.

On motion of Mr. McLean, \$1,000 was appropriated to be used in the department of electrical engineering.

The executive committee made the following report.

URBANA, OCTOBER 5, 1893.

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

GENTLEMEN: Your executive committee reports that at a meeting held August 16, 1893, \$400 was appropriated for the purchase of materials for the geological department. Respectfully submitted,

N. W. GRAHAM,  
S. A. BULLARD, } *Executive Committee.*  
N. B. MORRISON,

To defray expenses of packing and returning the exhibits from Chicago, an appropriation was made of \$500.

The matter of a change of uniform by the band, was referred to the faculty committee on military.

Forty dollars was appropriated for the purchase of instruments for the band.

Fifty dollars was appropriated for putting in shelves in the library.

The request of the Athletic Association for assistance, was referred to the finance committee.

Mr. Hall's request for an appropriation, was referred to the finance committee.

It was voted to grant, on request of the Chicago Club, free tuition to the holders of Chicago Club scholarships.

The matter of advertising in the *Illini*, was referred to the committee on finance.

The board then adjourned, to meet in the University Parlor, at 8 o'clock a. m., Oct. 6th.

### SESSION OF FRIDAY.

The board met pursuant to adjournment.

The committee on buildings and grounds made the following report:

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

GENTLEMEN:—Your committee on buildings and grounds recommends that a central plant be established for furnishing heat and power for the several buildings and departments of the University, and that the plant be located at the discretion of the committee. The details of this plan are to be worked out and reported at a subsequent meeting of the board, for its approval.

Respectfully submitted,

S. A. BULLARD,  
N. B. MORRISON, } *Committee.*  
R. P. MORGAN,

The report was laid over till the next regular meeting.

The committee also made further report as follows.

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

GENTLEMEN:—Your committee on buildings and grounds recommends the payment to Mr. George W. Bullard, of \$2,000, in part payment for services as architect of Engineering Hall.

Respectfully submitted,

S. A. BULLARD,  
R. P. MORGAN, } *Committee.*  
N. B. MORRISON,

The report was approved, and \$2,000 was appropriated for this purpose, from the state appropriation for Engineering Hall.

Professor Morrow was then heard with regard to a plan for holding two agricultural schools, each to continue one or two weeks—one in the northern part of the state, to be devoted largely to stock and dairy interests; the other in the southern part of the state, to be devoted chiefly to horticultural interests.

On motion of Mr. Morgan \$250 was appropriated to be used, so much thereof as may be needed, with a like sum of the experiment station funds, in defraying the expenses of the instructors conducting these schools.

Fifty dollars was appropriated for the purchase of dissecting tools for use in the veterinary department.

The board then adjourned.

W. L. PILLSBURY,

*Secretary.*

N. W. GRAHAM,

*President.*



MEETING OF DECEMBER 12, 1893.

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The board of trustees of the University of Illinois met in the University Parlor in Urbana, at 3 o'clock p. m., Tuesday, December 12, 1893. There were present Messrs. Armstrong, Bullard, Graham, McKay, McLean, Morrison, Raab, and Raymond; absent, Governor Altgeld, and Messrs. Bryant, Morgan, and Gore.

The minutes of the last meeting, both of the regular and adjourned sessions, were approved.

The regent then presented his report.

## REGENT'S REPORT.

*To the Trustees of the University of Illinois.*

GENTLEMEN: The enrollment of students for the present term makes a total of 663 against 642 for the same date last year. This is a slight increase compared with that of one year ago. But the increase of 97 students then may not after all have so much meaning as that of 21 does now, on account of the difference in the financial condition of the country. Any increase this year in most educational institutions is considered a sign of healthy growth. A decrease is more common. Of the total number, as above given, 547 are in the University, and 116 in the preparatory school, though the division can not be exactly made, since some of the individuals have work both in the preparatory and in the university classes. A complete summary of students has been handed to me by the registrar, which I beg leave to incorporate in this report. [ ]

## SUMMARY OF STUDENTS, DECEMBER 12, 1893.

* COURSES AND CLASSES.	University.								Preparatory School.		University and preparatory school.				
	Graduate school.	Resident graduates.	Seniors.	Juniors.	Sophomores.	Freshmen.	Specials.	TOTAL.	Total.	Men.	Women.	Total.	TOTAL.	Total.	
															Men.
Agriculture, men.....	1	..	1	..	..	3	1	6	..	6	3	..	9	..	9
Mechanical engineering, men.....	..	2	10	8	15	25	55	..	55	9	..	9	64	..	64
Electrical engineering, men.....	..	2	10	8	18	43	2	83	..	83	30	..	30	113	113
Civil engineering, men.....	1	2	13	21	19	16	..	72	..	72	12	..	12	84	84
Mining engineering, men.....	..	..	1	..	1	..	..	2	..	2	..	..	2	..	2
Municipal and sanitary engineering, men.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Architecture { men.....	1	3	14	11	15	33	2	79	..	82	11	..	11	90	93
Architecture { women.....	..	..	..	..	3	3	..	3	..	..	..	..	..	3	16
Architectural engineering, men.....	..	..	7	3	6	16	..	16	..	16	6	..	16	42	42
Chemistry, men.....	1	5	10	6	14	36	..	36	6	36	6	..	6	42	10
Pharmacy, men.....	..	..	2	3	2	7	..	7	3	7	3	..	3	10	10
Natural history { men.....	1	8	8	8	18	45	18	63	2	63	2	..	5	47	68
Natural history { women.....	..	3	4	3	6	2	1	..	..	..	3	..	..	21	..
Art and design { men.....	..	..	..	..	1	1	..	1	..	8	..	..	1	..	9
Art and design { women.....	1	..	..	..	1	5	7	7	..	8	1	1	1	8	2
Music, women.....	..	..	..	..	..	2	2	2	2	2	..	..	..	2	1
Physical culture, woman.....	..	..	..	..	..	1	1	1	..	1	..	..	1	..	1
English and modern languages { men.....	1	2	5	5	6	20	1	40	15	78	15	..	22	55	100
English and modern languages { women.....	2	2	3	3	8	10	10	38	7	7	7	..	7	45	..
Latin { men.....	..	2	1	1	3	4	1	8	6	16	6	..	7	14	23
Latin { women.....	..	..	1	1	3	3	..	8	1	16	1	..	1	9	..
Classical { men.....	..	1	1	1	3	8	13	18	4	18	4	..	7	17	25
Classical { women.....	..	1	1	1	1	2	..	5	3	..	3	..	..	8	..
Total { men.....	6	9	61	86	97	194	12	465	101	..	..	..	566	..	..
Total { women.....	2	3	8	9	15	25	20	82	15	..	..	..	97	..	..
Total.....	8	12	69	95	112	219	32	..	547	..	..	116	..	..	663

Last year, upon this date, instruction was given by 22 professors, 4 assistant professors, 10 instructors, and two fellows, all having charge of distinct classes, with 6 regular assistants, making 44 in all. There are now similarly employed 19 professors, 11 assistant professors, 19 instructors and two fellows, having charge of classes, and 10 other assistants, of whom one is a fellow, a total of 61. Agreeably with your request, I submit for your inspection a paper giving as fully as practicable details in regard to the work of each instructor. It should, however, be borne in mind that no such statement can exhibit with fairness the absolute or relative amount of work performed by individuals, much less the value of service to the University.

There is now further call for an expert blacksmith as instructor in the mechanical shop, at \$50 a month, and for instruction in two classes in the preparatory school, at about \$125 for the term.

The spirit animating teachers and students is such as to secure unqualified success in the work, notwithstanding published criticisms upon certain acts by a large body of our students. While these things are in themselves objectionable, from the standpoint of good order, they have not been inspired by any intentional trespass upon written regulations or unwritten proprieties of conduct; neither have they been worse than they have been in years recently passed. The newspaper reports have, however, served to call more especial attention to them and have led to fuller consideration than heretofore by both faculty and students of their

character and effect and may therefore result in good. The faculty now has the subject of the freshman sociable and attendant affairs before it, without, however, having yet reached full conclusions as to what should be, and what can be, done.

#### UNIVERSITY EXHIBIT AT COLUMBIAN EXPOSITION.

The most notable event in our country during the year was the holding of the World's Columbian Exposition. As this occurred within the territorial limits of our own state, special importance was attached to it for the people of Illinois, and no less from the educational point of view than from any other. The exposition has everywhere been acknowledged to be the greatest and finest of the great world's fairs. It was therefore the higher honor to be greatest and best in any one of its departments.

The University of Illinois made by far the most extensive and most representative exhibit shown by any educational institution whatever, and this means the largest exhibit ever made on the earth by a single institution of the kind. No inference is intended here that the University of Illinois has greater possibilities than several others in America for an exhibition of equipments and results; but the facts as they exist are abundantly worthy of record and ought to be highly gratifying to the friends of this institution. It is now and always will be impossible to determine how much benefit to the University comes or will come from the showing made; but that good does and will come from it is certain, and that it is worth its full cost is unquestionably true. As an indication of the general progress in educational affairs in our own country it was exceedingly suggestive, and creditable, alike to the University and to the commonwealth. The return of the exhibit, together with the other articles secured at the Exposition for the University, requires the use of nine cars, of which six have been received and unloaded. It is impossible to give credit to the persons who, without compensation, chiefly contributed to make the exhibit and its pronounced success. The amount of extra labor involved, on the part of men already overburdened, may be readily understood to have been very large, but can be fully appreciated by those only who were actively engaged in the work. It ought at least to be known that the University exhibit was planned and carried into execution by university men, though a certain part of the handicraft labor under their direction was paid for from the state appropriations by the authority of the Illinois Board of Commissioners. When all the accounts are summarized it will be found that the expenditures made from the university funds also amount in the aggregate to a large sum. It is undoubtedly money well expended, but it is probably more than was anticipated when the plans were formulated and accepted. The University has by no means been a simple recipient, as appears to be thought in some quarters.

The unloading, unpacking, and placing in position of the material now coming in seems to be beyond the power of persons now employed, and I therefore ask your approval of an arrangement just made by which Mr. W. J. Fraser began this work yesterday morning for one month at \$50.

#### EMPLOYMENT OF INSTRUCTORS.

When the professors were annually employed, this was regularly done at your June meeting; and in part, perhaps, this was the reason that all appointments upon the corps of instruction were made at that time. I respectfully recommend a change in this practice and that, whenever deemed feasible, such appointments for the ensuing year be made not later than the March meeting. Justice to those whose tenure of office is for a single year requires that they should be given notification of re-employment, or otherwise, at a time in the school year when other possibilities are open to them, and experience has abundantly shown that new instructors should be sought for before the field has been gleaned

of its best material. The summer vacation is a poor time in which to look for teachers, and especially is it then too late to secure readily professors of the requisite qualifications to take charge of departments. Such men are then already engaged. Those not employed by the middle of June are not usually the ones desired by you. The time of beginning service should remain the first of September, as heretofore; but the suggestion here made is that all appointments be considered early in the academic year.

There is now open a professorship of history. No good reason seems to exist against making an appointment to this chair at the present meeting, provided a proper nomination can now be made. If this cannot now be done, the necessary instructions should be given to prevent injurious delay in the matter.

It pains me to transmit herewith a communication from Professor Snyder. No words of mine can express the unestimated and inestimable value of his long years of devotion and services to the University. His labors have never been stinted by the routine requirements of his assigned duties, neither has his personal gain been consulted when the interests of the University could be advanced. Money alone does not pay for such service, and you will agree that this remuneration has not been great. His communication will have the kindest reception by you.

#### COURSES OF STUDY AND CATALOGUE.

I submit herewith several new courses of study which have been offered in departments that have been organized or reorganized during this collegiate year, on account of the appointment of new instructors. Should they meet with your approval they will find their place in the next issue of the annual catalogue.

It is very desirable that the catalogue should be published earlier in the year than has been usual with us. The new catalogue has ordinarily made its appearance shortly before commencement day, but sometimes, through a little unforeseen delay, not until after the students have dispersed for the summer vacation. It may just as well be compiled through the winter, and there seems to be no good reason why it should not be printed as soon after the opening of the spring term as the lists of students can be completed. Never before in the history of the University have so many individual calls for the catalogues been received as for the last one, and, in consequence, though large to begin with, the edition is nearly exhausted and new ones will be needed as early as possible to meet the demand. What is now desired is the proper reference of the matter to your committee on publications.

#### SUMMER SCHOOL.

The faculty has considered the matter of holding a summer school at the University and recommends that a four weeks' session be provided for, beginning June 20th, and that the announcements be made in the name of the University and through the regular channels.

As this is intended as a university, not a private, enterprise, the opinion is held that instructors should receive pay, corresponding to the service engaged, at about the usual rate for university instruction. The rate of about one-tenth the regular yearly salary of the several professors and instructors is suggested. The expenses of this session would be met, so far as may be, by a tuition charge of \$1 a week for each subject taken.

It is recommended that where work is done on university subjects, under the tuition of the regular university instructors, in amount sufficient to equal a full term's work in any course, credit should be given on the records of the University for such work, its value to be determined by such examinations as are usual in the departments to which it

belongs. It is further advised that opportunity be given to students conditioned in their regular courses to work off those conditions at this summer school.

It is assumed that the regular laboratory fees and charges will be made to students taking laboratory work.

It is recommended that courses be offered this first year in art and design, athletics, botany, chemistry, English literature, French, geology, German, Greek, history, Latin, mathematics, mineralogy, pedagogy, psychology, philosophy, physics, physiology, political economy, and zoölogy.

A large number of the instructors have consented to share in the work of the proposed school on condition that substantially the plan here outlined, or its equivalent, is carried out.

#### REQUESTS FROM DEPARTMENTS.

I submit a communication from Professor Moss, as librarian. The request should be studied in relation to the provisions anticipated for the library when Engineering Hall is occupied.

Requests from the department of mechanical engineering are herewith presented. All of these are important for the work of the department, and it is hoped that at least some of them may be granted.

A request from the chemical department for leave to import supplies for next year, to the amount of \$1,500, is presented for your consideration.

The United States authorities require that the military equipments supplied to the University shall be kept fully insured. Since the exchange of new arms, etc., has been made there is some increase in the valuation and this extra amount should be provided for in the policies.

The university band desires \$10 for music.

The usual report made by the professor of agriculture is presented herewith:

#### FARM REPORT.

URBANA, ILL., December 11, 1893.

*Dr. T. J. Burrill, Acting Regent,*

DEAR SIR: During the three months ending December 1st, the financial operations of the University farms have been as follows:

Receipts.....	\$1,829 94
Expenses.....	305 10

Balance to credit of farms.....\$1,524 84

The receipts may be classified thus; cattle, \$473.63; horses, \$235; hogs, \$197.95; butter and milk, \$129.90; pasture, \$79.25; work, \$39.62; corn, \$668.44; miscellaneous, \$6.15.

The expenditures may be classified thus: labor, \$211.70; feed for experiment purposes \$31.80; hardware and repairs, \$44.32; miscellaneous, \$17.28.

In accordance with directions, sales of live stock and other salable property have been made as rapidly as practible. It was found advisable to make sale of a number of animals for delivery during the present month. Especial difficulty has been found in disposing of the horses, and more particularly the colts. Awaiting action by the board of trustees, the stock, whose transfer to the Experiment Station was asked for, has been kept.

Circulars concerning the free short course in agriculture have been issued, and over four thousand copies distributed. The agricultural and general newspapers have prominently mentioned this course. A large correspondence has resulted, and there is every indication of an attendance considerably larger than at the similar course last year, Arrange

ments have been made for what may be called agricultural university extension work, in the way of a series of lecture courses at Dixon, December 19 to 22, 1893, and at Mt. Vernon, February 12 to 16, 1894.

Circulars descriptive of the courses at Dixon have been freely distributed. The committee in charge of the arrangements there writes predicting a good attendance. Requests have been made to have similar lecture courses given at other points, but it is believed to be best not to attempt additional work of the kind this winter.

Respectfully submitted,

G. E. MORROW,

The report of the board of direction of the Agricultural Experiment Station is presented herewith.

#### REPORT OF EXPERIMENT STATION.

URBANA, ILL., December 12, 1893.

*Dr. T. J. Burrill, Acting Regent,*

DEAR SIR: I beg leave to submit from the board of direction of the Agricultural Experiment Station the following:

Paper A is a list of warrants drawn, No. 1 to 65, inclusive, for the quarter ending September 30, 1893, and is accompanied with vouchers for the same, for audit.

Paper B is a statement of expenditures for the quarter ending September 30, 1893.

Paper C is a statement of appropriations, expenditures and balances for the quarter ending December 31, 1893.

Paper D is a statement of appropriations asked for the next quarter.

#### PAPER B—APPROPRIATIONS, EXPENDITURES AND BALANCES FOR THE QUARTER ENDING SEPTEMBER 30, 1893.

	Appropriated.	Expended.	Balances.
Buildings and repairs.....	\$25 00	.....	\$25 00
Board expense.....	40 00	\$21 40	18 60
Books and publications.....	50 00	49 70	30
Botanical apparatus.....	60 00	2 50	57 50
Bulletins.....	200 00	38 08	161 92
Chemical apparatus.....	170 00	2 93	167 10
Fuel and lights.....	60 00	27 60	32 40
Furniture and fixtures.....	15 00	12 80	2 20
Incidentals.....	25 00	17 28	7 72
Meteorological apparatus.....	20 00	18 00	2 00
Printing, stationery, and postage.....	25 00	7 36	17 64
Salaries.....	1,950 00	1,534 96	365 04
Seeds and trees.....	10 00	.....	10 00
Tools and supplies.....	25 00	24 95	50
Wages and teams.....	1,150 00	1,056 29	93 71
Sundry experiments—			
Corn and wheat experiments.....	60 00	19 25	40 75
Dairying experiments.....	50 00	2 50	47 50
Columbian Exposition work.....	50 00	.....	50 00
Nitrogen experiments.....	187 50	187 50	.....
Total.....	\$4,172 50	\$3,073 07	\$1,099 43

PAPER C—APPROPRIATIONS, EXPENDITURES, AND BALANCES FOR THE QUARTER ENDING DECEMBER 31, 1893.

	Appropriated.	Expended.	Balances.
Buildings and repairs .....	\$25 00	.....	\$25 00
Board expenses.....	40 00	.....	40 00
Books and periodicals.....	250 00	\$7 15	242 85
Botanical apparatus.....	60 00	.....	60 00
Bulletins.....	350 00	53 38	296 62
Chemical apparatus.....	175 00	92 96	82 04
Fertilizers.....	75 00	.....	75 00
Fuel and lights.....	110 00	.....	110 00
Incidentals.....	25 00	4 50	20 50
Printing, stationery, and postage.....	25 00	.....	25 00
Salaries.....	1,985 00	1,208 91	776 09
Seeds and trees.....	20 00	.....	20 00
Tools and supplies.....	25 00	.....	25 00
Wages and teams.....	800 00	455 23	344 77
Sundry experiments—			
Dairying experiments.....	100 00	.....	100 00
Wheat and other experiments.....	50 00	.....	50 00
Nitrogen experiments.....	75 00	.....	75 00
Drainage.....	200 00	.....	200 00
Dairy and horticultural schools.....	250 00	.....	250 00
Total.....	\$4,640 00	\$1,822 13	\$2,817 87

PAPER D—ESTIMATES, QUARTER ENDING MARCH 31, 1894.

Buildings and repairs.....	\$25 00
Board expenses.....	40 00
Books and publications.....	50 00
Botanical apparatus.....	10 00
Bulletins.....	750 00
Chemical apparatus.....	50 00
Fuel and lights.....	100 00
Incidentals.....	25 00
Printing, stationery, and postage.....	25 00
Salaries.....	1,985 00
Seeds and trees.....	100 00
Tools and supplies.....	50 00
Wages and teams.....	800 00
Sundry experiments—	
Dairying experiments.....	150 00
Drainage.....	200 00
Wheat and other experiments.....	50 00
Total.....	\$4,410 00

The board does not at this time ask authority to enter upon any new line of work.

It requests the board of trustees to make appropriations of experiment station funds to be used in carrying on the work of the Station during the quarter beginning January 1, 1894, according to Paper D.

I would also call your attention to the communication presented at the last meeting of the board with regard to changing in some respects the methods of carrying on the station work, and with regard to lands, stock, tools, etc., desired by the Station.

Respectfully submitted,

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

The papers which I hand you herewith relate to the requests for appropriations made above.

Respectfully submitted,

T. J. BURRILL,  
*Acting Regent.*

On motion of Mr. Armstrong, the several matters presented in the regent's report were taken up for consideration.

On motion of Mr. Armstrong, the request for the appointment of additional instructors was referred to the finance committee.

On motion of Mr. McLean, the subject of the freshman sociable was referred to a special committee.

The president appointed as members of this committee Messrs. McLean, Raab and McKay.

The special committee, appointed at the October meeting, to consider the leasing of ground to the Christian associations of the University, made the following report :

URBANA, ILL., December 12, 1893.

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

GENTLEMEN: Your committee, appointed at the October meeting, to investigate the legality of leasing grounds to the Christian associations of the University, begs leave to submit the following opinion from Judge J. O. Cunningham, of Urbana :

URBANA, ILL., November 25, 1893,

*Dr. T. J. Burrill, Acting Regent,*

MY DEAR SIR: Your letter of yesterday, asking for my written opinion upon the proposition to lease certain grounds of the University to the young people's Christian associations, has reached me.

I see nothing in this proposition to change the rule cited by me in answer to a former letter by you. Leasing land is but parting with the use and control for a term of years, instead of perpetually. The associations, while as to so-called evangelical churches they are non-sectarian, yet as to Hebrews, Catholics, Mohammedans, Parsees, and Universalists, are sectarian. To donate land as proposed would, as it seems to me, be a direct violation of the mandate contained in section 3, article VIII, of the constitution of 1870, which every trustee is sworn to obey.

Yours, etc.,

J. O. CUNNINGHAM.

In view of the conclusion stated in Judge Cunningham's opinion, your committee is compelled to advise that grounds should not be leased to the Christian associations.

Respectfully submitted,

T. J. BURRILL, }  
ALEX. MCLEAN, } *Committee.*

The report of the committee was adopted.

On motion of Mr. Armstrong, the board adjourned to meet at 8 o'clock p. m., at the Doane House, Champaign.

### EVENING SESSION.

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

Professor Breckenridge sent in the following report with regard to tools and machinery which had been borrowed for the mechanical engineering department at the World's Fair:

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

GENTLEMEN: Allow me to submit to you the following statement:

I have returned to the Lodge & Davis Machine Tool Company the three tools loaned to the mechanical engineering department during the



World's Fair, and have received from them a statement annulling our obligation to them as per agreement, of April 8, 1893. This statement I enclose herewith, together with agreement referred to.

The machine loaned us by the Garwin Machine Company was shipped them December 1st, and they will send me a similar statement upon receipt of the machine, which I will hand to Mr. Pillsbury, or as you may direct. All of which is respectfully submitted. I am

Yours respectfully,

Urbana, December 11, 1893.

L. P. BRECKENRIDGE.

The report was received for record.

Authority was given the business agent to employ W. J. Fraser, for one month, to take charge of the distribution of the exhibits received from the World's Fair, and to pay him for such service, \$50.

On motion of Mr. Armstrong, it was voted that the annual appointments of instructors and assistants be made at the meeting in March.

Mr. Morrison offered the following resolution, which was adopted:

*Resolved*, That this board receives Professor Snyder's resignation with extreme regret.

*Resolved, further*, That the resignation be referred to the committee on instruction, and that the committee be requested to confer with Professor Snyder, and report to the board at its next meeting.

The new courses submitted by the regent were approved; and the matter of such further minor modifications of the courses of study as should be found necessary, was referred to the executive committee of the faculty, with power to act.

On motion of Mr. Raab, the publishing of the annual catalogue was referred to the committee on instruction, with directions that the catalogue be published as soon as practicable after the beginning of the spring term.

From current funds, \$15 was appropriated to put temporary book shelves in Professor Kinley's room.

The request for the fitting up of rooms in the basement of the chemical laboratory for the mechanical engineering department, was referred to the committee on buildings and grounds, to be reported on at this meeting.

The employment of a blacksmith in the machine shop for the next six months, at a salary of \$50 per month, was authorized.

Removal of the fan from the basement of the chemical laboratory to the blacksmith shop was authorized, the expense not to exceed \$65, which sum was appropriated for that purpose.

The matter of purchasing a lathe and drill for the mechanical engineering department was referred to the finance committee.

The business agent was authorized to contract for the purchase of apparatus and supplies, to be imported for the chemical laboratory, not exceeding in cost \$1,500, of which sum \$1,000 shall be taken from the fees received in the chemical department.

The business agent was directed to insure, to their full value, the ordnance and ordnance stores, which have been received from the United States war department.

The making of repairs and procuring additional apparatus for the gymnasium, as requested by the director of the gymnasium, Mr. Hall, was referred to the committee on buildings and grounds, with authority to expend, at its discretion, not to exceed the sum asked, \$156, for the purposes named. An appropriation of this amount was made from current funds.

An appropriation of \$50 from current funds, to be paid July 1st, was made for music in the young ladies' gymnasium.

A paper presented by the regent, from Miss Kellogg, except so much of it as relates to the music, already provided for, was referred to the committee on instruction.

An appropriation of \$10 from current funds was made to purchase music for the band.

The vouchers presented by the Experiment Station, covering its expenditures for the quarter ending September 30, 1893, were referred to the finance committee.

The appropriation of experiment station funds was made as asked for by the board of direction.

The method of purchasing books for the library was referred to the library committee.

The board then adjourned to meet at 9 o'clock the next morning.

#### SESSION OF WEDNESDAY.

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

The bill for advertising, presented by the *Illini*, amounting to \$16.17, was ordered paid from current funds.

The farm committee made the following report:

#### REPORT OF FARM COMMITTEE.

Your farm committee, to which was referred the management and conduct of the farm belonging to the University, begs leave to report:

Acting through the professor of agriculture and the business agent, the committee has succeeded in carrying out the directions of the board of trustees, as expressed at its March meeting. We have met obstacles of one kind and another in disposing of the stock, and in renting the farm, but think the matter is satisfactorily adjusted in the following manner:

The farm is rented for three years to a reliable farmer, by the name of Samuel B. Hedges, at a yearly rental of \$2,000, with the option of terminating the lease at the end of any year. One-third of the annual rental to be paid on the first day of September and two-thirds on the first day of January of each year. The performance of all the conditions of the lease are guaranteed by two responsible farmers, and the responsibility of the farmer renting the place is vouched for by Judge F. M. Wright and Judge J. O. Cunningham, of Urbana. The stock ordered sold by the committee is not all disposed of. The general stagnation of business has rendered selling nearly impossible. Quite a large share, however, has been sold, and the money reported in the financial statement of the business agent. The balance will be disposed of probably before the close of the year.

Your committee further requests that the asking of the Experiment Station in regard to certain stock—an inventory of which will appear with the report—be granted, and the experiment station farm, so called, together with the inventory of tools and stock, herewith submitted, be turned over into the hands of the Experiment Station. On the board of direction of this Station are gentlemen drawn from three great divisions of agriculture, who are eminently qualified to control the work of the Station. We recommend that the Experiment Station receive the farming implements and stock, which will fit them up properly for experimental housekeeping.

The value of the property turned over to the Experiment Station was estimated to be about \$1,000. The farm was rented last year for crop rent, of which the University now holds the share belonging to the land, estimated at from 1,800 to 2,000 bushels of corn. Your committee

feels that the professor of agriculture, having the care and superintendence of this large body of land, together with his duties in the University, has been overworked, and we think the present management and policy of renting the farm, and divorcing the University from the active duties of farming, will contribute to the welfare and prosperity of the University and the professor of agriculture. All of which is respectfully submitted.

Inventory of stock and tools as asked for by the Experiment Station:

1 gray mare—Bird. 1 bay gelding, four years old—Harry. 1 bay gelding, three years old—Sam. 2 two-year-old draft colts—John and Barney. 2 one-year-old draft colts—Bay and Black. 2 suckling draft colts—a gray roan and a black. 2 Shorthorn cows. 2 Hereford cows. 2 Holstein-Friesian cows. 2 Jersey cows. 10 yearling steers. 10 steer calves. 12 pigs. 2 farm wagons. 3 sets harness. 1 set light harness. 1 plow—New Deal. 3 corn cultivators. 1 harrow. 2 disk harrows or cultivators. 1 roller. 1 mower. 1 hay rake. 1 tread power. 1 feed cutter and carrier. The hay, straw and grain in the experiment farm barn.

Respectfully submitted,

N. B. MORRISON, }  
ALEX. McLEAN, } *Farm Committee.*  
ISAAC S. RAYMOND, }

The report of the committee was adopted on motion of Mr. Raab.

The special committee appointed to consider matters relating to the freshman sociable made the following report, which was adopted:

URBANA, ILL., December 13, 1893.

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

GENTLEMEN:—Your committee to which was referred that part of the regent's report relating to the freshman sociable, would respectfully report that it has inquired into the matter of the alleged irregular conduct of some of the students of the University and recommends the adoption of the following resolution:

*Whereas*, The Board of Trustees of the University of Illinois has heard with great chagrin of the vulgar action of certain students in interrupting the class supper of the freshmen at Bloomington, and

*Whereas*, The conduct of the young men in disturbing this social reunion is highly detrimental to the discipline of the University and the fair name of the State of Illinois, and wholly unbecoming for students of this institution, therefore, be it

*Resolved*, That the board of trustees heartily endorses the sentiment expressed by the president of the freshman class at its banquet and trusts that the absurd and ungentlemanly custom of molesting this class will be forever abandoned.

Respectfully submitted,

ALEX. McLEAN, }  
HENRY RAAB, } *Committee.*  
F. M. MCKAY, }

Professor Crawford's claim to be paid the regular salary for the month of September, 1893, was not allowed.

The treasurer's report was read by the secretary, Mr. Spalding being absent, and was referred to the finance committee.

## TREASURER'S REPORT.

CHARLES W. SPALDING, TREASURER, IN ACCOUNT WITH THE UNIVERSITY OF ILLINOIS, NOVEMBER 30, 1893.

		Dr.	
1893.			
September	12	To balance .....	\$306,944 94
"	21	To interest on Montgomery county bonds .....	\$90 00
"	30	To amount received from J. W. Bunn, on general fund ....	1,000 00
"		To amount received from S. W. Shattuck on general fund ..	2,940 11
"		To amount received from state for collecting, preparing and mounting specimens for the cabinets of geology, mineralogy and natural history .....	500 00
"		To amount received from state on account of 1892 Minnesota taxes .....	1,381 79
"		To interest on Jasper county bonds .....	750 00
"		To interest on endowment fund to date, 4 per cent. ....	52 75
"		To interest on all other funds to date, 2½ per cent. ....	240 20
October	11	To U. S. experiment station warrant .....	3,750 00
"	12	To draft received from J. W. Bunn on endowment fund ....	6,000 00
"	23	To interest on Sangamon county bond .....	42 00
"	26	To amount received from S. W. Shattuck on general fund ..	3,850 73
"		To amount received from W. L. Pillsbury (warrants) .....	463 54
"	30	To interest on endowment fund to date, 4 per cent. ....	95 43
"		To interest on all other funds to date, 2½ per cent. ....	370 17
November	1	To interest on Cass county bonds .....	325 00
"	11	To interest on Douglas county bonds .....	600 00
"	14	To interest on land contract No. 61, O. B. Webb, assignee. .	110 95
"	30	To amount received from J. W. Bunn on endowment fund ..	3,377 50
"		To interest received on above .....	61 50
"		To interest on endowment fund to date, 4 per cent. ....	100 00
"		To interest on all other funds to date, 2½ per cent. ....	337 80
			26,439 47
			<u>\$233,384 41</u>
		Cr.	
1893.			
November	30	By amount paid on account of general fund as per list of warrants attached hereto .....	\$11,955 27
"	30	By amount of accrued interest paid on Gallatin county bond purchased on account of endowment fund .....	20 00
"	30	By amount paid on account of state appropriation, as per list of warrants attached hereto .....	27,598 44
"	30	By amount paid on account of U. S. experiment station fund, as per list of warrants attached hereto .....	2,379 47
"	30	By amount paid for Gallatin county bond No. 95, on account of endowment fund .....	1,000 00
"	30	By amount advanced W. L. Pillsbury on account of U. S. experiment station fund .....	400 00
			\$43,353 18
		Balances—	
		General fund .....	\$3,995 52
		State appropriations .....	149,332 13
		Endowment fund .....	33,377 50
		U. S. experiment station fund .....	3,326 08
			<u>\$190,031 23</u>
			<u>\$233,384 41</u>

CHICAGO, ILL., November 30, 1893.

CHARLES W. SPALDING,  
Treasurer.

URBANA, ILL., December 13, 1893.

To the Board of Trustees of the University of Illinois.

GENTLEMEN: Your finance committee offers the following resolution:

Inasmuch as the report of our treasurer, Mr. C. W. Spalding, shows \$33,377.50 cash on hand belonging to the endowment fund, we recommend that the said amount be invested in bonds within the next thirty days, if practicable; and that hereafter, whenever bonds are redeemed the proceeds be re-invested as soon as may be.

We further recommend that hereafter when bonds are redeemed or moneys received on land contracts, the treasurer immediately notify the chairman of the finance committee, and that they, together with the finance committee, invest such funds in bonds.

Respectfully submitted,

ALEX. MCLEAN,	} <i>Finance Committee.</i>
F. M. MCKAY,	
J. E. ARMSTRONG,	

The report of the committee was adopted on motion of Mr. Rabb.

The board then adjourned to meet at 4 o'clock p. m., after the completion of the exercises of the laying of the corner stone of the new Engineering Hall.

#### AFTERNOON SESSION.

The board met pursuant to adjournment, but adjourned without transacting any business, to meet at 8 o'clock p. m., at the Doane House, in Champaign.

#### EVENING SESSION.

When the board met pursuant to adjournment, the same members were present as in the morning, with the exception of Mr. Raab.

Mr. Raymond's bill of \$21.10, expenses as delegate to the Association of American Agricultural Colleges and Experiment Stations, was allowed and ordered paid from current funds.

The business agent, Professor S. W. Shattuck, then presented his report:

URBANA, ILL., December 12, 1893.

*Nelson W. Graham, Esq., President Board of Trustees, University of Illinois,*

SIR: I have the honor to hand you the following financial statement and report:

Paper A, a statement showing the current appropriations for the three months ending November 30, 1893.

Paper B, a showing of the state appropriations November 30, 1893.

Paper C and C 2d, the same for the United States fund.

Paper D, a list of vouchers presented for audit, being 1,051 to 1,400, inclusive, except No. 1,037.

Paper E, an estimate of receipts and expenses for the nine months ending September 1, 1894.

Paper F, an estimate of receipts and expenses for the three months ending March 1, 1894.

## PAPER A—CURRENT APPROPRIATIONS.

September 12 and October 5, 1893.	Appropriated.	Receipts also appropriated.	Expended.	Balance.
Board expense.....	\$500 00		\$563 67	
Salaries for instruction.....	19,800 00		12,609 78	\$504 19
Salaries for services.....	2,467 50		1,894 04	573 46
Buildings and grounds.....	400 00		270 15	29 85
Fuel and lights.....	2,000 00	\$22 93	1,460 95	562 88
Stationery and printing.....	600 00		579 09	20 91
Preparatory school.....		1,355 84	675 00	680 84
Mechanical department.....	350 00	181 40	505 07	26 33
Architectural department.....	200 00	2,540 68	2,672 63	68 05
Agricultural department.....	100 00	1,654 87	356 18	1,398 69
Horticultural department.....	50 00	167 65	73 63	144 02
Military department.....	150 00		99 02	50 98
Laboratories.....	600 00	200 00	753 01	46 99
Library and apparatus.....	50 00		23 27	26 73
Incidentals.....	259 45	8 15	266 67	93
Water supply.....	125 00		125 00	
Furniture and fixtures.....	500 00		363 68	136 32
Heating apparatus.....	500 00		571 34	
Accredited schools.....	135 00			135 00
Offices and preparatory rooms.....	1,040 00		1,022 83	17 17
Ladies' reception room.....	300 00		267 75	32 25
Music room.....	40 00		12 55	27 45
Art department.....	213 96		164 26	49 70
University bulletins.....	100 00			100 00
Music and piano.....	100 00		37 00	63 00
Band instruments.....	50 00			50 00
Agricultural schools.....	250 00			250 00
Land drainage.....	100 00			100 00
Minnesota lands.....	45 94	8 00		53 94
Gymnasium.....	49 22		6 00	43 22
World's Fair exhibit.....	649 50		96 09	553 41
Library shelves.....	50 00		38 19	11 81
<i>Illini</i> subscriptions.....	475 00		153 67	321 31
Premium and interest on bonds.....	493 11		493 11	
Opinion on bond.....	100 00		100 00	

## PAPER B—STATE APPROPRIATIONS.

November 30, 1893.	Received.	Expended.	Balance.	Assigned.
Cabinets.....	\$1,000 00	\$507 06	\$492 94	\$492 94
Taxes on Minnesota lands.....	1,381 79	1,381 79		
Heating and furnishing Natural History Hall.....	6,000 00	3,015 03	2,984 97	2,984 97
Boilers and coal house.....	6,500 00		6,500 00	6,500 00
Engineering Hall.....	80,000 00	5,929 54	74,070 46	74,070 46
Municipal engineering.....	50 00		50 00	50 00
Department of Greek.....	100 00	28 63	71 37	71 37
Physiological laboratory.....	800 00	230 61	569 39	569 39
Chemical laboratory.....	500 00	267 08	232 92	232 92
Botanical laboratory.....	200 00	94 77	105 23	105 23
Architectural cabinet.....	175 00	84 90	90 10	90 10
Library.....	5,000 00	164 04	4,835 96	4,835 96
World's Fair material.....	2,000 00	958 68	1,041 32	1,041 32
Geology.....	400 00	332 78	67 22	67 22
Physiology.....	100 00	76 16	23 84	23 84
Physical culture.....	210 00	30 14	179 86	179 86
College of literature.....	200 00	23 00	177 00	177 00
Buildings and grounds, walks, etc.....	2,500 00	3,162 10		
Outside closets.....	2,500 00	2,177 42	322 58	322 58
Faculty's toilet room.....	350 00	409 18		
Ladies' toilet room.....	150 00	133 10	16 90	16 90
Class rooms, Natural History Hall.....	190 00	179 23	10 77	10 77
Chemical laboratory, store room, etc.....	700 00	521 89	178 11	178 11
Desks for chemical laboratory.....	550 00	311 13	238 87	238 87
Salaries for instruction.....	12,609 68	12,609 78		
Overdrafts.....	721 28			
Balance of \$60,000.00 appropriated.....	29,903 94		29,993 94	
Total.....	\$154,881 79	\$32,628 04	\$122,253 75	\$92,259 81
Illinois State Laboratory of Natural History.....	8,563 26	2,545 82	6,017 44	2,387 34

## 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	1,927 72	\$72 28	\$72 28
Total.....	\$15,000 00	\$14,927 72	\$72 78	\$72 78
<i>Year Ending June 30, 1891.</i>				
Before reported on.....	\$14,510 00	\$14,510 00	.....	.....
Architectural department.....	1,430 00	1,430 00	.....	.....
Geology.....	60 00	48 77	\$11 23	\$11 23
Total.....	\$16,000 00	\$15,988 77	\$11 23	\$11 23
<i>Year Ending June 30, 1892.</i>				
Before reported on.....	\$14,750 00	\$14,750 00	.....	.....
Library.....	2,000 00	1,992 55	\$7 45	\$7 45
English literature.....	150 00	139 33	10 67	10 67
Metallurgical laboratory.....	100 00	.....	100 00	100 00
Total.....	\$17,000 00	\$16,881 88	\$118 12	\$118 12
<i>Year Ending June 30, 1893.</i>				
Before reported on.....	\$16,897 50	\$16,897 59	.....	.....
Agricultural lectures.....	250 00	75 75	\$174 25	\$174 25
Veterinary department.....	86 91	29 15	57 76	57 76
Testing laboratory.....	40 00	37 22	2 78	2 78
College of engineering.....	216 50	213 50	2 70	2 70
Architectural department.....	264 00	86 68	177 32	177 32
Civil engineering.....	245 00	245 00	.....	.....
Total.....	\$18,000 00	\$17,585 19	\$414 81	\$414 81
<i>Year Ending June 30, 1894.</i>				
Physics and electrical engineering.....	\$5,400 00	\$3,975 63	\$1,424 37	\$1,424 37
Testing laboratory.....	1,700 00	.....	1,700 00	1,700 00
Geology.....	300 00	.....	300 00	300 00
Zoölogy.....	1,000 00	31 78	968 22	968 22
Chemistry.....	490 00	.....	490 00	490 00
Civil engineering.....	950 00	278 60	671 40	671 40
Mechanical engineering.....	3,083 13	2,178 41	914 72	914 72
Municipal engineering.....	700 00	60	699 40	699 40
Architecture.....	500 00	.....	500 00	500 00
Salaries for instruction.....	4,569 90	4,569 90	.....	.....
Unassigned.....	296 97	.....	296 97	.....
Total.....	\$19,000 00	\$11,034 92	\$7,965 08	\$7,668 11

The board is requested to appropriate the amounts given under the head of expenses in *Paper F*, also for the following overdrafts:

In paper A	Board expense.....	\$63 67
"	Heating apparatus.....	71 34
"	B Buildings and grounds.....	662 10
"	Faculty toilet room.....	59 18
	Total.....	\$856 29

The second item was made necessary, to keep in running order the present apparatus.

The buildings and grounds' one was caused by extra repairs on roofs, some \$200, the repairs on boiler house, and change in the roof of the chemical laboratory. Mr. Sutton, as superintendent, was also paid from this account, \$197.01, as no special appropriation had been made for his salary.

The overdraft on the toilet room was made necessary, as the plumbing contract alone amounted alone to more than the appropriation.

Mr. Bullard, chairman of the building and grounds committee, knows of some of the above matters.

I assume that the cost of moving and fitting up the new farm house, is to be met out of farm receipts as no special appropriation has been made for the same.

Respectfully submitted,

S. W. SHATTUCK,

*Business Agent.*

The following assignments, as asked for in Paper F, presented by the business agent, were made:

Board expenses .....	\$600 00
Salaries for instruction and regent .....	20,000 00
Salaries for services .....	2,257 50
Buildings and grounds .....	1,000 00
Fuel and lights .....	2,000 00
Stationery and printing .....	600 00
Laboratories .....	350 00
Library and apparatus .....	50 00
Incidentals .....	200 00
Water supply .....	125 00
Furniture and fixtures .....	300 00
Mechanical, architectural, agricultural, horticultural departments .....	400 00
Military department and gymnasium .....	75 00
Heating apparatus .....	200 00
Accredited schools, balance .....	135 00
University bulletins, balance .....	100 00
Ladies' reception room, balance .....	32 35
Music room, balance .....	27 45
Art department, balance .....	49 70
Music and piano, \$93; band instruments, \$50; balance .....	113 00
Agricultural schools, balance .....	250 00
World's Fair exhibit, balance .....	553 94
<i>Ullini</i> subscriptions, balance .....	521 33
Total .....	\$29,720 17

Further appropriations were made, as asked for by the business agent:

Board business .....	\$63 67
Lighting apparatus .....	71 34
Buildings and grounds .....	662 10
Faculty toilet room .....	59 18
Total .....	\$856 29

The finance committee made the following report:

URBANA, ILL., Dec. 13, 1893.

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

GENTLEMEN: Your finance committee begs leave to report as follows:

1. In October last, your committee, having been instructed by you to ascertain and report the balances due from Mr. J. W. Bunn, the former treasurer of this board, at the time he turned over his office to his successor, Mr. C. W. Spalding, decided to employ an expert accountant to go over the books, vouchers, warrants, and securities held by Mr. Bunn as treasurer, Professor S. W. Shattuck, business agent of the University, and Mr. W. L. Pillsbury, secretary of the Experiment Station, from the organization of the University and the Station.

2. In accordance with this decision. your committee employed Mr. G. L. Marchand, a well-known expert accountant of Chicago, to make this examination; and in November Mr. Marchand, with an assistant, visited the offices of Mr. Bunn, Professor Shattuck, and Mr. Pillsbury, and made the examination contemplated, as instructed by your committee.



3. On completion of this work, Mr. Marchand made a full report, which is filed herewith. He states that he found the accounts of the above named officers of this board correct; that all moneys received and all securities were accounted for, and that the disbursements were fully shown.

He reported that there had been some slight clerical errors made in the figures on some of the warrants. But in all such cases we find that the original receipted bills in the business agent's office and the cash paid out on the warrants agree.

Mr. Marchand also found that a few of the warrants, some seven in number, drawn between September 6, 1872, and February 28, 1873, were missing; but here again the original receipted bills, on file in the business agent's office, agree with the amounts for which the treasurer has taken credit.

4. Your committee further finds that the reports made by our present treasurer to this board, in September last and at this meeting, taken with the report of your committee made September 12, 1893, show that Mr. Bunn has turned over to his successor all securities and all balances of money held by him as the property of the University of Illinois, thereby discharging in full his indebtedness to the University.

5. Your committee finds that, complying with the order of the board made at its meeting last March, the secretary has procured and written up, from information given him by Mr. Bunn, and after an inspection of the bonds in the hands of Mr. Spalding, a register of the endowment fund of the University. This register gives a full statement of each bond or series of bonds belonging to the fund. It also contains a schedule of the bonds and accounts to be balanced each quarter, showing redemptions of bonds and investments made, the cash on hand, the income receipts, and the payments of principal and interest on the land contracts.

6. Your committee will take under advisement the system of book-keeping followed by the business agent and the manner of conducting the business of the University, and will make to the board at its next meeting such suggestions, if any, as it may find advisable.

Respectfully submitted,

ALEX. MCLEAN,  
F. M. MCKAY,  
J. E. ARMSTRONG, } *Finance Committee.*

Mr. G. L. Marchand's bill was referred to Messrs. Armstrong and McKay to be audited, and was ordered paid from current funds upon their approval.

Dr. Coyle's bill of expenses, amounting to \$60, was ordered paid from current funds. Dr. Coyle visited the University upon invitation of the committee on instruction.

Dr. Robert H. Thurston's bill of expenses amounting to \$62.98 was ordered paid. Dr. Thurston was at the laying of the corner stone of Engineering Hall and delivered the address of the occasion.

The finance committee reported that it had received papers from the athletic association showing the expenses of the association in detail, but that it requested further time before reporting finally in regard to the appropriation asked for by the association.

The request by the committee for further time was granted.

The finance committee made the following report:

URBANA, ILL., December 13, 1893.

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

GENTLEMEN:—Your finance committee has examined the report of C. W. Spalding, treasurer, showing balance and receipts amounting to \$233,-384.41; expenditures, \$43,353.18, and balance on hand at date of report,

Nov. 30, 1893, \$190,031.23, and finds the report correct. They have examined the vouchers submitted by the business agent, S. W. Shattuck, No. 676 to 1400, inclusive, excepting 1037, and find them correct and duly received. They have also examined the experiment station warrants, No. 1 to 65, inclusive, for the quarter ending Sept. 30, 1893, and find them correct and duly received.

Respectfully submitted,

ALEX. MCLEAN, }  
J. E. ARMSTRONG, } *Finance Committee.*

On motion of Mr. McKay, it was voted that a central heating plant would be most desirable for the University; and the committee on buildings and grounds was instructed to report in detail with regard to such a plant at the next meeting of the board.

The committee on buildings and grounds made the following report with regard to moving the house in the arboretum to the south farm:

URBANA, ILL., December 13, 1893.

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

GENTLEMEN:—Your committee on buildings and grounds reports that after examining the house in the arboretum, on the site of the new building, it was decided to remove it to the south farm, to be used for a tenement house, as requested by the farm committee. We got two proposals from house movers, one for \$250 and one for \$125. We made a contract with Mr. Charles Weeks, for \$125, to move the house to the location desired on the south farm. Nothing was said in the contract about the expense of going through the lines of the Electric Street Railway. Mr. Weeks was not permitted by the street railway company to go through its lines without considerable delay, nor until the University guaranteed the expense of crossing. To avoid further charges, unreasonably large, demanded by the street railway company, your committee agreed to pay Mr. Weeks \$25 more to take another and longer road to the place of destination.

The house is now in place and partially repaired.

The street railway company rendered a bill of expense for cutting and repairing wire, etc., amounting to \$15.10, and for damage to trolley wire, \$10. We decided that the bill of expense, amounting to \$15.10, be paid in settlement in full of the bill rendered by the said company; that Mr. Weeks be paid \$150, as agreed; and that \$500, or so much thereof as may be needed, be appropriated for putting the house in good condition for habitation, all these sums to be paid from the income of the farm.

Respectfully submitted,

S. A. BULLARD, }  
N. B. MORRISON, } *Committee on Buildings and Grounds.*

The report was adopted.

The same committee also reported with regard to the new building, as follows:

#### ENGINEERING HALL.

URBANA, ILL., Dec. 13, 1893.

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

GENTLEMEN: Your committee on buildings and grounds reports with regard to Engineering Hall:

Your committee notified C. F. Schultz & Co. that their proposal for erecting Engineering Hall had been accepted by the board of trustees, and that they should meet the committee, in Chicago, October 12th, ready to present a bond and enter into a contract for the erection of said building. Mr. Phil. Yeager and Mr. C. F. Schultz were both present. The members of the firm of C. F. Schultz & Co. notified your committee that the said firm had taken in another member, Mr. M. Yeager, and

that the name of the firm had been changed to Yeager & Schultz. Yeager & Schultz presented a bond in the sum of \$43,000, which your committee found satisfactory and approved.

All the members of the committee, together with the president of the board, were present.

The committee decided to use Berea, Ohio, blue sandstone in the construction of the exterior walls of the basement.

The committee then entered into a contract with the said firm of Yeager & Schultz, in accordance with the proposal submitted by the said C. F. Schultz & Co., and a contract was made in duplicate, and one copy of the contract and the bond have both been filed with the business agent of the University.

Your committee appointed Mr. I. H. Rapp inspector for the building, at a salary of \$130 per month, to commence work when the work on the building should begin.

The committee appointed Mr. George W. Bullard, architect, as general superintendent of the building at a compensation of 2½ per cent of the cost of the building.

Work was begun at once by the contractors, and they have shown commendable zeal in pushing along rapidly.

As the work of excavation was going on, careful examination of the footing trenches was made; and, in order to secure a satisfactory clay foundation for the wall footings, the superintendent had part of the walls placed at a greater depth. By so doing, the ground on which the building rests is as nearly uniform as could be had for a building the size of this.

The excavation is completed and nearly all the foundation walls are finished; part of the joists are laid and the main walls are started. To-day the corner stone was laid with fitting ceremonies, at which you were present.

The weather has been favorable for work and the contractors propose to go forward with the building as rapidly as it will permit.

The work thus far is very satisfactory. Several car loads of brick were rejected and sent away by the inspector and superintendent, but no trouble has since been experienced on account of poor material, except in unimportant matters.

Your committee fixed the grade of the building as contemplated in a former report, and now, since the foundation is in place, we believe the grade will be very satisfactory.

Your committee hopes to be able to present to the board for its consideration, at the next general meeting, proposals for heating the building, for electric wiring, and other minor work.

The contractors were paid, on estimates of the superintendent, Nov. 1st, \$2,415.44, and December 1st, \$10,479.22.

In the opinion of the committee, the elevator shaft in the building should have the openings closed up with brick, but so arranged that they can be removed without any considerable expense at any time when it may appear best to put an elevator into the building. There will be no extra cost for this.

Respectfully submitted,

S. A. BULLARD, } Committee on  
N. B. MORRISON, } Buildings and Grounds.

The report of the committee was accepted, and its recommendations adopted.

The business agent and Professor Breckinridge were given authority to dispose of the mining engineering machinery, now in the basement of the chemical laboratory, provided they could do so on terms deemed satisfactory.

The committee on buildings and grounds made the following report:

URBANA, ILL., December 13, 1893.

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

GENTLEMEN: Your committee on buildings and grounds begs leave to report regarding the request of Professor Breckenridge for the use of a part of the basement of the chemical laboratory as a laboratory for the mechanical engineering department, recommending that the room be so used temporarily, and that \$100 be appropriated, to be spent in putting the rooms in order and purchasing materials to be used therein.

The committee recommends the payment of \$40 to Professor J. M. White, to reimburse him for assistance in preparing drawings and in getting blue prints of furniture, etc., for use in the several departments of the University.

Your committee recommends the appropriation of \$100 for fitting up rooms assigned to the department of pharmacy in the chemical laboratory. It was proposed to do this work in August and September last, but it did not seem necessary that it should be done then: the committee deems it necessary now.

Respectfully submitted,

S. A. BULLARD, ) *Committee on*  
N. B. MORRISON, } *Buildings and Grounds.*

The report of the committee was approved, and appropriations were made as therein requested.

The proposition for a summer school was highly approved. The matter of arranging for the same was referred to the committee on instruction and the faculty of the University, with directions to report at the next regular meeting of the board.

The finance committee made the following report:

URBANA, ILL., DEC. 13, 1893.

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

GENTLEMEN: Your finance committee begs leave to report as follows:

1. As to the request for additional instructors in Geometry and Latin in the preparatory school, for the remainder of the year, the committee recommends that the request be not granted at present, for the reason that the condition of our finances will not warrant further expenditures for instruction.

2. As to the askings of Professor Breckenridge for additional machinery to be used in the mechanical hall, while admitting that the purchase would be desirable, the committee recommends that it be deferred for the present, inasmuch as we have now no funds that can be used for such a purpose.

Respectfully submitted,

ALEX. MCLEAN, ) *Finance Committee.*  
J. E. ARMSTRONG, }

The committee appointed at the July meeting to draft resolutions in regard to the retiring treasurer. Mr. J. W. Bunn, made the following report:

URBANA, ILL., December 13, 1893.

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

GENTLEMEN: The undersigned special committee, appointed by you at your July meeting to draft resolutions in relation to our former treasurer, Mr. John W. Bunn, begs leave to report the following resolutions for adoption:

WHEREAS, Mr. John W. Bunn has been treasurer of the University of Illinois since its organization in 1867 until August, 1893, and

WHEREAS, An examination of his books and vouchers for the entire period, by an expert accountant, shows that the accounts have been ac-

curately kept, that the receipts and disbursements, amounting to three and one-half million dollars, have been fully reported, and that the balances due the University were correctly stated by Mr. Bunn at the close of his term of office, and

WHEREAS, This board deems it fitting that recognition be made of this long-continued, faithful performance of duty; therefore be it

*Resolved*, That we, the trustees of the University of Illinois, hereby testify to our high appreciation of Mr. Bunn's valuable and efficient services as treasurer of the University during the past twenty-six years, and to our great esteem for his business ability and integrity.

*Resolved*, That these resolutions be recorded in the proceedings of this board, and that a copy of them, suitably engrossed, be presented to Mr. Bunn.

ALEX. MCLEAN, }  
S. A. BULLARD, } *Committee.*

The question of opening streets and of buying land from Mr. Bronson was referred to the committee on buildings and grounds.

The committee on buildings and grounds was directed to put up a shelter for persons waiting to take the street cars on Green street, in front of University Hall, the shelter to be inside the fence.

The committee on buildings and grounds was directed to investigate fully and report at the next meeting with regard to the fire-escapes from the fourth story of University Hall.

The board adjourned.

N. W. GRAHAM, *President.*

W. L. PILLSBURY, *Secretary.*

## MEETING OF MARCH 13, 1894.

The Board of Trustees of the University of Illinois met in the University parlor, in Urbana, at 3 o'clock p. m., Tuesday, March 13, 1894. There were present Messrs. Armstrong, Bullard, Graham, McKay, McLean, Morrison, Raab, and Raymond; absent, Governor Altgeld, and Messrs. Bryant, Morgan, and Gore.

The minutes of the last meeting were approved.

The president announced that the next order of business was the election of officers, and on motion of Mr. McLean, the board proceeded to the election.

On motion of Mr. McLean, Mr. Graham was unanimously re-elected president.

On motion of Mr. Raab, W. L. Pillsbury was re-elected corresponding secretary, recording secretary, and registrar.

Mr. Graham announced the committees for the ensuing year as follows:

*Farm*—Morrison, Raymond, McLean, Bryant.

*Buildings and Grounds*—Bullard, Morgan, Morrison.

*Finance*—McLean, McKay, Armstrong.

*Instruction*—McKay, Raab, Armstrong, Bryant.

*Publications*—Graham, Burrill, Pillsbury.

*Library*—Burrill, Raab, Morgan, Shattuck, Moss.

On motion of Mr. McKay, Messrs. Morrison and Bullard were named as the two members of the board who should, with the president as chairman, constitute the executive committee for the ensuing year.

The regent then presented his report.

## REGENT'S REPORT.

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

GENTLEMEN: It affords me much pleasure to report to you again satisfactory progress of affairs in the University. While there is little new to be said for the work of the last quarter, the work itself has been such as to contribute its full measure towards the appropriate and onward movement of the institution. Harmony and good will prevail; abundant and stimulating interest exists; every department of the University is in good working order. I believe it is fully true that not in a single one of these can serious criticism be made of the methods in vogue or the results obtained, taking necessary limitations of conditions and circumstances into account; and, so far as my information goes, with very minor exceptions, this feeling and this estimate prevail not only among those whose names are on the pay rolls, but also among the attendants upon the various courses of instruction. There is nothing in all this of which to boast, since it is the proper and normal condition of things; but the statements are deemed worth making that they may at least show that any opposite condition of things does not demand your attention.

## MILITARY DEPARTMENT.

Perhaps no other division of the University so sensitively indicates the general spirit prevailing within itself as does that of the military department. It will be remembered by all how much trouble was formerly found in the conduct of its affairs, not arising from friction growing out of its own organization, but from ferment and disorder otherwise. With so large a number of persons as are required to drill, it is not expected that every one shall be altogether satisfied and fully ready to do his whole duty, but there certainly is now exceedingly little of which to complain. Compared with last year, to go no further back, there is an evident and hopeful improvement. More interest is manifested and much less compulsion is required in regard to attendance and attention. In this connection I submit a report of the committee of the faculty, on military affairs, to which was referred by you the matter of a change in the uniform of the band, together with petitions bearing 271 signatures of students for some change in uniforms for the cadet companies.

Before leaving this subject it should be said that there are 8 military scholarships to be provided for, at \$22.50 each, and an appropriation of \$180.00 is asked for that purpose. A request by Captain Hills for a small appropriation, found later among other similar matters, is commended to your attention.

## PHYSICAL CULTURE FOR WOMEN.

So far as class requirements and credits are concerned, the military instruction and practice are treated just as are other subjects. For the completion of the whole of the compulsory military course of two years, two term credits are allowed. In case of excuse from these military requirements, on account of physical disability or otherwise, young men are obliged to make up these two credits, and for this purpose they may choose two terms' work in any subject or subjects taught in the University, but young women are allowed to graduate with two less credits than men. In view of the fact, universally admitted, that young women are greatly benefited by proper physical training, and further that the opportunity for such instruction now exists, the faculty recommends, in respect to requirements and credits, that physical training for women be placed upon the same basis as are military instruction and practice for men, and that for men and women the same graduating conditions be made. This recommendation is now made with the understanding that the requirements should be published in the forthcoming catalogue, to take effect at the beginning of next year.

The only serious trouble anticipated in executing this idea is the difficulty, owing to the complexities of the daily program of exercises, of finding any really suitable hour in the day when the young women can assemble at the gymnasium. They can do this at the time the men drill, *i. e.*, from 4 to 5 p. m., and, if the requirement is made, this hour will in all probability have to be accepted for the purpose. Even at this hour the drill is felt to be very much in the way of sufficiently extending the daily program to meet the increasing necessities of the subjects. As it is now, nearly all other class work must cease at 4 o'clock each day, when otherwise it might be extended to 6 o'clock. At some similar institutions the difficulty is avoided by having drill only upon Saturday, and in others by having it from 12 to 1 o'clock, followed by dinner at the latter hour.

The matter is full of difficulties not easily overcome, but an arrangement can be made for women as easily as for men.

## CHAPEL.

The time now set for the chapel exercises also interferes with better arrangements for classes. Many of the classes require two or three consecutive hours, and for these we now have but two forenoon periods of

two hours, instead of three, which we might have did not the chapel exercises intervene, and none of three hours. But it is not considered feasible to hold the chapel exercises at any other time than when many students are, for other reasons, in or near the University Hall; in other words, in the busiest part of the day. At other times they are widely scattered in the various buildings and in their rooms in the towns. For these and other reasons the faculty has, by vote, recommended the discontinuance at the end of this collegiate year of the formal chapel assemblage.

The faculty also wishes to include Saturday forenoon for work in shops, draughting rooms, laboratories, and for field work.

#### NEW BUILDING FOR THE CHRISTIAN ASSOCIATIONS.

I am gratified to state that the Young Men's and the Young Women's Christian associations have succeeded in purchasing the lot east of the new engineering hall, and that there is now much hope that they will soon be able to commence the building toward which such remarkable efforts were made two years ago. The failure until now to secure a proper site, has been the chief obstacle in the way of pushing this worthy enterprise to completion. The building will be a powerful stimulus to these organizations, and they in turn give much promise of great and hopeful contributions to the best interests of the University.

#### APPOINTMENTS.

According to your action at the last meeting, the regular appointments for the next collegiate year are to be made at this time. I shall hold myself in readiness to give any and all possible information relating to this important matter, contenting myself to say here that further service is very properly called for in some of the departments, and that, considering the pressing need for economy of expenditure, the greatest wisdom is needed in the proper and best possible adjustment of the teaching force, and in the apportionment of funds.

#### SCHOOL OF PHARMACY.

Besides the extension of course of study in the preparatory school, and the further development of established departments, special attention is called to the establishment of a school of pharmacy, as recommended by the college of science, and to a training or practice school for the department of pedagogics.

We have now instruction in pharmacy as a branch of the school of chemistry, and a two years' course is offered to matriculated students. Such students must, of course, gain admittance to the University in the regular ways, either upon passing the required examinations or upon diplomas of accredited schools. But schools of pharmacy are everywhere trade schools, whose purpose is simply to fit students for the special business to which they propose to devote themselves. The requirements for admission are, therefore, much less than for the regular University matriculation. The course of study is commonly two years, and it is common to award a degree, usually that of graduate of pharmacy (PH.G.) to those who complete the course. For further study of one or two years, master in pharmacy (PH.M.) is given. The faculty of the college believes that there would soon be a large attendance of students in a course of this kind, if offered upon terms similar to those made by neighboring state universities in this line. It is therefore recommended that such a school be organized; that admittance be conditioned upon passing the subjects now required for entrance to the preparatory department and upon English as required for matriculation; that candidates shall be at least 18 years of age, and shall have had at least two years of practical experience in a drug store; that the fees shall be \$12.50 per term, beside the laboratory expenses, and that a certificate instead of a degree be given on gradua-



tion. It is thought such a school would be nearly or quite self-sustaining when once founded. There are now 12 students in the pharmacy classes, and there is demanded increased facilities for these, whether or not the distinct school be established. This last matter was presented to you and to your committee on buildings and grounds, last year, and the proposition was made to fit up rooms in the attic story of the chemical laboratory, but through some misunderstanding the work was not undertaken. It is estimated that \$700 will provide the fixtures and equipment sufficient to accommodate 50 students, use being made of the facilities of the laboratories otherwise, as far as possible. In case such a school is established, one man (Mr. Sandford) should give his whole time to it, and this will necessitate some further assistance in the chemical laboratories, though much will depend upon the number of applicants for the course.

#### MODEL SCHOOL.

In regard to a training school for the course in pedagogics, it is undoubtedly true that such opportunities as this would give for the investigation of practical problems, for the practical application of theory, and for the actual experience by pupil teachers, are in every way desirable. The training school suggested would be the laboratory of the department, and in this relation is considered equal in importance to the laboratories of other sciences, essential alike to the professor and students as investigators, and to the latter as learners. The professor now in charge of the department thinks there should be in such a training school about 40 pupils from 6 to 10 years of age, in two general divisions of 20 each, each division to have its own room and permanent teacher, the latter especially selected for the work in hand. One thousand two hundred dollars a year is suggested as pay for these two teachers, (women), *i. e.*, \$600 each. Practically the only further expenditure would be for the room furniture, perhaps \$300. It is not deemed feasible to charge tuition, therefore there would be no income. Without tuition, pupils of a desirable kind can undoubtedly be had, and more especially just now, since the school accommodations in the western part of Urbana are not up to the needs.

At the meeting of the State Teachers' Association last December much interest was privately and publicly expressed in the steps so far taken by the University in this direction, and the president of the State Normal University voiced the evident, prevailing sentiment by advocating the development here of a true college of pedagogics. I am glad to commend in all heartiness well-considered efforts towards this desirable attainment. The conditions are ripe for it now. I believe a movement in this direction would be not only popular, but exceedingly useful to the best educational interests of our great state—a worthy mission of the University of Illinois.

#### EXAMINATION OF ACCREDITED SCHOOLS.

Another matter in connection with the chair of pedagogics demands a word here. When the professor was engaged it was hoped he might largely help to solve another problem which has long engaged attention; namely, the visitation of high schools for our accredited list. This work has grown greatly in recent years, both in amount and in its usefulness to the University. The field is now a very fertile one and should be well cultivated. The number of accredited schools, as published in our last five catalogues, are as follows:

1888-89 .....	53
1889-90 .....	58
1890-91 .....	60
1891-92 .....	87
1892-93 .....	113

During the early years of this period the regent undertook all of the examinations; then various members of the faculty were called upon for

a time to leave their classes and make journeys through the state for the purpose. Recently Professor McMurry has returned from a trip occupying a full month, and in this time he visited twenty-one schools. There still remain about twenty more which should be examined this year. School superintendents and principals are now anxious to have their schools placed on our list. In no other way can so close connection be made between the University and the public high schools, a thing desirable in itself and mutually helpful to all concerned. The professor of pedagogics can be especially helpful in his visits to these schools and can gain information of direct professional utility for himself. If, in some way, his university work could be taken care of eight or ten weeks each year, it seems to me the problem of high school visitation would be solved best by placing it wholly in his charge. Possibly his own class work could be left during his absence with one or both of the training teachers suggested, if these are employed. In such case the work to be done should be considered in the appointments, and probably one of those engaged should be a man. The salary, too, would probably have to be more than the amount stated.

#### AGE FOR ENTRANCE.

The faculty recommends that the minimum age for entrance, both to the preparatory school and the University, be raised from 15 to 16 years. The state law requires that all applicants for admission be at least 15 years of age. There is no legal obstacle, however, in the way of raising the standard in this respect, and while the proposed change would have little effect as to numbers, it would exclude some who become a hindrance and a detriment in the classes. In the preparatory school this year 6 entered at the age of 15, while 42 are over 20 years old; 8 entered at 16, 24 at 17, 31 at 18, and 18 at 19 years.

#### PREPARATORY SCHOOL.

Much consideration has been given to the development of the preparatory school. A two years' course is recommended instead of the one year course, as now existing. In this extension more time is given some of the subjects, especially English and mathematics, and it is proposed to add: Zoölogy, 1½ terms; free-hand drawing, 1 term; general history, 2 terms; French or German, 3 terms. The whole has been arranged in three general courses, called, respectively: (1) Science and mathematics, (2) English-Latin, and (3) classical. The first is preparatory to the science and technical, the second to the English and modern language, and the third to the classical courses of the University. The adoption of this plan will necessitate more teaching force and more room for the classes. There have been employed this year two persons who give their whole time to these classes, one who has two large classes throughout the year, three who have each one class throughout the year, and one who has two classes one term, making for full and heavy duty a total of about 3½ persons. One University instructor and two professors each have one of these classes through the year, an arrangement that can not be considered satisfactory from any standpoint except that of the pupil. Should these instructors be relieved, there would be required, on the present basis, seven instructors in the preparatory department. If the pupils in French and German and in free hand drawing are permitted to attend the University classes, there seem to be still necessary six teachers for the preparatory work as outlined. It must remain to be seen whether or not the school would attract as many pupils with a two years' course as it does now. It should still be possible for those of mature years and capable of doing more than average work to complete a preparatory course in one year, and the proposed scheme of studies meets this requirement; but it is expected that most of the pupils would be entered for the two years' course. The school has been self-sustaining and probably will continue to pay at least for the instruction, but in

any event a small sum for apparatus and materials will be much needed. The principal names \$350.

As to rooms for the preparatory school, as proposed, it is easily seen that the present quarters would not suffice, but some arrangement can be made after the engineers vacate University Hall, and probably with little cost for refitting.

#### CHANGES IN COURSES, COURSES FOR HIGHER DEGREES.

The executive committee of the faculty, on recommendation of the faculty of the college of literature, asks that the admission requirements in Latin be reduced to two books of Cæsar, four orations of Cicero, and four books of Vergil. The same committee, from suggestions of the faculties of the colleges of science and literature, desires your approval of the following modifications in regard to admittance to the University: (1) That graduates of the Illinois State Normal Schools be admitted to classes in pedagogy and allied studies, and be granted a certificate on the completion of a two years' course, and (2) That persons over 21 years of age be admitted to advanced standing on satisfying the usual requirements for admission, together with such other requirements as the faculty may deem suitable.

The committee also asks authority to announce in the catalogue the conditions upon which the degrees of doctor of philosophy and doctor of science will be granted.

I present herewith a communication from Professor White and will say, in the same connection, Mr. Cleaves Bennett has informed me that he does not wish to be a candidate for reappointment another year. Both of these gentlemen have abundantly earned your high appreciation for the excellence of their services, and your best wishes for their future welfare. Professor White's communication is as follows:

*To the Board of Trustees, University of Illinois.*

GENTLEMEN: It is my wish to devote some time to travel and study abroad, and I therefore ask for a leave of absence beginning June 7, 1894; and continuing through the next University year.

Respectfully submitted,

JAMES M. WHITE,

*Assistant Professor of Architecture.*

In regard to the library, the time has undoubtedly now come when a thoroughly competent man should be engaged as chief officer, to have no other responsibility resting upon him. He should have at least one efficient, permanent assistant or clerk, besides the assistance possible to receive from students.

I submit for your consideration special reports or communications from the departments of agriculture, mechanical engineering, physics and electrical engineering, and chemistry, and am prepared to give you further information in each case.

#### DEPARTMENT OF ZOÖLOGY.

Professor Forbes, in a communication setting forth the embarrassments arising from the rapidly increasing complication of his work as state entomologist, as director of the State Laboratory of Natural History, and as professor of zoölogy in the University, and dean in the college of science, asking a revision of his relations to the University and to these outside interests, makes the following suggestions to that end:

“Three possible methods of reorganization suggest themselves to me. (1) The simplest, and the one I should personally very much prefer, would be a resignation of my position as state entomologist and a concentration of my energies on my university department and the natural history

survey. I have hitherto been deterred from taking this course by the fact already mentioned, that the University might thus lose such incidental advantages as come from the location of the office here, and by the further fact that if this consequence should follow, the work of the office itself would almost necessarily suffer seriously, since the existing association with the University, the Agricultural Experiment Station, and the State Laboratory of Natural History, is in the highest degree helpful to it.

"(2) My university duties and responsibilities might be lessened, if thought best, by the appointment of an assistant professor to divide the work of the department with me. This would require for a competent person, a salary of \$1,500 to \$1,800.

"(3) An appropriation might be made for assistance in my state laboratory work sufficient to enable me to engage men competent to investigate and report without detailed supervision. An assignment of \$1,500 a year to the State Laboratory for increase of salaries would probably suffice. If \$500 a year could be added to this sum it would enable me to carry out at once a long cherished purpose of establishing on the Illinois river (probably at Havana) a permanent biographical station, for continuous investigation work throughout the year. As my laboratory assistants already bear a considerable share in the instructions of the university students—one of them, for example, having principal charge of my entomology class this year—and as the permanent station proposed would be an effective means of stimulating and aiding original work by students both in my department and that of Professor Burrill, there would seem to be no impropriety in such assignment of university funds."

#### CATALOGUE.

At your last meeting authority was given to make changes affecting the courses of study, and for other minor announcements in the catalogue. Authority is now asked for your committee on publication to make such adjustments of matter presented as seems necessary to secure uniformity and agreement, and to have 6,000 copies of the catalogue printed. It seems to me desirable that the preparatory school matter should be published separately, except that a simple outline of course and admission conditions may be included in the general catalogue.

#### APPROPRIATIONS.

The following requests for appropriations are hereby submitted to you for your consideration:

For examination of high schools.....	\$100 00
For a certificate for accredited schools.....	150 00
For military supplies.....	22 00
For <i>The Technograph</i> .....	100 00
For acting regent's expenses.....	43 85
For commencement expenses.....	200 00
For typewriter and cabinet for regent's office.....	120 00

I hand you herewith, making them a part of my report, a report from the agricultural department by Professor Morrow, and also a report of the board of direction of the Agricultural Experiment Station.

#### REPORT FROM FARM AND AGRICULTURAL DEPARTMENT.

UNIVERSITY OF ILLINOIS, March 6, 1894.

*Dr. T. J. Burrill, Acting Regent,*

DEAR SIR: I respectfully present the following report from the agricultural department of the University for the quarter ending March 1. 1894.

The receipts for the university farm have been \$761.22; expenditures, \$69.73; leaving balance to credit of \$691.49. All the stock belonging to

the university has been sold, with the exception of two young mares and two colts. There also remain corn and some farm implements to be disposed of.

There have been 23 students in the free short course in agriculture. As a class they have been young farmers of more than usual intelligence and have taken much interest in the work of the course. Acknowledgments are due to various members of the university faculty and of the experiment station staff for their valuable help by lecturing before these students in addition to their other duties.

The two courses of agricultural university extension lectures, authorized by the board, were held, as announced, at Dixon and Mt. Vernon. Each meeting continued four days, with four or five lectures each day. The attendance in each place was fully as large as was anticipated and was mainly continuous, although the audiences increased from the first to the last. The interest manifested was very marked and the formal and informal expressions of appreciation were highly gratifying. In each case the attendance was more largely made up of the persons in the vicinity and of middle-aged men or older farmers than would be counted desirable, as the primary design was to interest young farmers and farmers' boys. Further trial of this method of giving agricultural instruction is recommended.

Members of the faculty of the college of agriculture and of the experiment station staff have made some 70 addresses at agricultural, horticultural, and dairy meetings in our state during the three months. I have personally made 26 such addresses. While this method of endeavoring to help farmers involves large expenditure of time, I believe it is for the present one of the most effective means of our aiding in agricultural education.

The existing arrangements concerning the holding of farmers' institutes in this state seem to me unsatisfactory, in that while the state appropriates money in payment of the expenses incurred in holding such institutes, there is no supervision of them. In many counties of the state no institutes are held. The value of those held in other counties differs greatly. It seems to me clear that much better results would be secured if there were competent supervision and general direction of these institutes, and I respectfully ask the attention of the board of trustees to the question whether it would not be helpful both to the University and the institutes, if such supervision of the latter were made a part of the duties of the agricultural department of the University.

The Illinois State Dairymen's Association, at its recent annual meeting, passed a resolution advocating the establishment of a dairy school at this University, as has been done in several other states in connection with the state university or agricultural college. I respectfully present my hearty approval of this action.

In common with all institutions of the same general class in the United States where a choice of courses of study is freely offered, we have failed to secure more than a very few students for regular agricultural courses. We have found here as elsewhere some demand for short courses in agriculture; but the evidence seems conclusive that this demand is chiefly for training in some one or more lines of work connected with agriculture rather than for education in the principles or general practice of agriculture. Of these lines instruction in dairying, more especially with reference to the manufacture of butter or cheese, is by far the most popular.

By the laws under which this institution was established, it is made a leading object of it to give instruction in the branches of learning relating to agriculture. We could not escape this duty and obligation if we would, and would not if we could. But it is obvious that the methods by which we attempt to do this work should be modified from time to time so as to meet whatever demand exists and to foster such demand.

The work of the Agricultural Experiment Station is increasingly appreciated, but this is a part only of the work we should do so far as it is possible.

I most earnestly request that action be taken looking to securing from the next legislature of an appropriation sufficiently large to cover the cost of the erection and equipment of a building for the agricultural department of the University, including the Experiment Station. A prominent feature of this should be provision for a dairy school, but the building should also include rooms and apparatus for instruction in veterinary and horticultural subjects, as well as for those more directly relating to general agriculture, and for the offices and laboratories of the Agricultural Experiment Station.

Respectfully submitted,

G. E. MORROW.

#### AGRICULTURAL EXPERIMENT STATION REPORT.

URBANA, ILL., March 13, 1894.

*Dr. T. J. Burrill, Acting Regent,*

DEAR SIR: I beg leave to submit from the board of direction of the Agricultural Experiment Station the following:

Paper A is a list of warrants drawn, No. 66 to 133, inclusive, for the quarter ending December 31, 1893, and is accompanied with vouchers for the same, for audit.

Paper B is a statement of expenditures for the quarter ending December 31, 1893.

Paper C is a statement of appropriations, expenditures and balances for the quarter ending March 31, 1894.

Paper D is a statement of appropriations asked for the current quarter and for the next quarter.

PAPER B—STATEMENT OF APPROPRIATIONS, EXPENDITURES AND BALANCES FOR THE QUARTER ENDING DECEMBER 31, 1893.

	Appropriated.	Expended.	Balance.
Buildings and repairs .....	\$25 00	.....	\$25 00
Board expenses .....	40 00	\$22 86	17 14
Books and periodicals .....	250 00	237 09	12 91
Botanical apparatus .....	60 00	38 07	21 93
Bulletins .....	350 00	240 15	109 85
Chemical apparatus .....	175 00	211 86	.....
Fertilizers .....	75 00	.....	75 00
Fuel and lights .....	110 00	68 20	41 80
Incidentals .....	25 00	18 30	6 70
Printing, stationery, and postage .....	25 00	5 00	20 00
Salaries .....	1,985 00	1,877 26	87 74
Seeds and trees .....	20 00	.....	20 00
Tools and supplies .....	25 00	15 67	9 33
Wages and teams .....	800 00	863 08	.....
Sundry experiments—			
Dairying experiments .....	100 00	19 80	80 20
Wheat and other experiments .....	50 00	.....	50 00
Nitrogen experiments .....	75 00	.....	75 00
Drainage .....	200 00	.....	200 00
Dairy and horticultural schools .....	250 00	.....	250 00
Total .....	\$4,640 00	\$3,617 34	\$1,102 60

## PAPER C—STATEMENT OF APPROPRIATIONS, EXPENDITURES AND BALANCES FOR QUARTER ENDING MARCH 31, 1894.

	Appropriated.	Expended.	Balances.
Buildings and repairs .....	\$25 00	.....	\$25 00
Board expenses .....	40 00	.....	40 00
Books and publications .....	50 00	.....	50 00
Botanical apparatus .....	10 00	\$3 46	6 54
Bulletins .....	750 00	345 19	404 81
Chemical apparatus .....	50 00	23 17	26 83
Fuel and lights .....	100 00	.....	100 00
Incidentals .....	25 00	1 25	23 75
Printing, stationery, and postage .....	25 00	7 45	17 55
Salaries .....	1,985 00	1,356 64	628 36
Seeds and trees .....	100 00	2 25	97 75
Tools and supplies .....	50 00	48 00	2 00
Wages and teams .....	800 00	505 46	294 54
Sundry experiments—			
Dairying experiments .....	150 00	.....	150 00
Drainage .....	200 00	.....	200 00
Wheat and other experiments .....	50 00	.....	50 00
Total .....	\$4,410 00	\$2,292 87	\$2,117 13

## PAPER D—ESTIMATES.

<i>Quarter Ending March 31, 1894.</i>		
Bulletins .....		\$100 00
Meteorological apparatus .....		10 00
Salaries .....		50 00
Tools and supplies .....		200 00
Wages .....		225 00
Farmers' institutes .....		55 00
Total .....		\$640 00
<i>Quarter Ending June 30, 1894.</i>		
Building and repairs .....		\$25 00
Board expenses .....		40 00
Books and publications .....		75 00
Botanical apparatus .....		10 00
Bulletins .....		300 00
Chemical apparatus .....		50 00
Fuel and lights .....		100 00
Incidentals .....		25 00
Printing, stationery, and postage .....		25 00
Salaries .....		1,785 00
Seeds and trees .....		20 00
Tools and supplies .....		175 00
Wages .....		1,130 00
Sundry experiments—		
Dairying experiments .....		50 00
Drainage experiment .....		200 00
Wheat and forage experiments .....		50 00
Total .....		\$4,060 00

The board of direction proposes, if the committee to which the matter has been referred, shall deem it advisable so to do, to sell some of the stock which it now has and to purchase cows for the dairy. It asks this board to appropriate the proceeds of such sales, if made, for this purpose. It also asks that \$150 in addition thereto be appropriated from the farm fund for the fitting up of the dairy, or for the purchase of cows, as may be necessary.

The board of direction suggests the following as a readjustment of the salaries of those members of the station staff, who are now paid in part from university funds and in part from experiment station funds:

Professor Morrow, \$1,300 from the Station instead of \$1,000.

W. L. Pillsbury, \$800 from the Station instead of \$1,500.

F. D. Gardner, \$1,000 from the Station instead of \$500.

It proposes that Professor Burrill and G. P. Clinton be paid the same amount from the Station as heretofore—\$300 and \$750 respectively.

Heretofore Mr. Mayer, who has charge of the greenhouse, has been paid \$600 a year by the Experiment Station. The board of direction proposes to pay Mr. Mayer hereafter \$360 from station funds.

The other members of the station staff, all of whom are paid exclusively from experiment station funds, will continue at the same salaries they are now receiving.

The board of direction asks authority to conduct the following experiments:

1. Investigations in vegetable physiology.
2. Experiments in garden vegetables.
3. Experiments with florists' plants.

A National Dairy Congress, of which experiment stations may become members, has been organized, and authority is asked to make this Experiment Station a member of the congress in case the executive committee of the Experiment Station shall, upon further inquiry, deem it advisable so to do.

Respectfully submitted,

G. E. MORROW,

*President of Board of Direction.*

□The communication from Professor Morrow, concerning the agricultural department of the University, touches upon points of interest and of great importance to the University. They should receive, as I have no doubt they will, very careful consideration.

□The requests made by the board of direction, are along the usual lines and have been carefully considered by the board.

Respectfully submitted,

T. J. BURRILL,

*Acting Regent.*

The proposed changes in the style of uniforms for the battalion and band were approved. The regent and executive committee of the board were given power to take such action as they should deem wise with regard to contracting for furnishing these uniforms.

The uniforms authorized are as follows:

#### DESCRIPTION OF UNIFORMS.

##### NON-COMMISSIONED OFFICERS AND PRIVATES.

*Coat*—Of cadet gray cloth; single breasted; standing collar, fastened with hook and eye; coat to close with a flap containing five concealed black buttons and button-holes; the skirt to extend from one-third to two-thirds the distance from the hip-joint to the bend of the knee, according to height of wearer. To be cut to fit closely; back in single piece with curved side-seams.

*Trimmings*—Of black mohair flat braid, as follows: To be edged all around the bottom, the front edges, the collar, up the back seams, and around the sleeves three inches from the edge, with braid one inch wide. On each side of the breast, five double rows of three-eighths inch braid, with points at the outer end of the top rows extending nearly to sleeve seams, the lowest points to be about six inches apart, according to measure of waist. To have two inside breast pockets.



*Trousers*—To be of cadet gray cloth, with stripe of black cloth down outer seam of each leg.

*Cap*—Of dark blue cloth, army pattern, with University badge (wreath and letters U. of L.) embroidered in gold bullion on cap.

*Gloves*—White Lisle thread or white Berlin gloves.

#### OFFICERS.

*Coat*—Of dark blue cloth; single breasted; standing collar, fastened with hook and eye; coat to close with a flap containing five concealed black buttons and button-holes; the skirt to extend from one-third to two-thirds the distance from the hip-joint to the bend of the knee, according to height of wearer. To be cut to fit the figure *easily*; back in single piece with curved side seams; a vertical opening in each side at the hip; the sword-belt to be worn underneath the coat, the sword-hook emerging through the opening in the left side. The shoulder-strap to be worn.

*Trimmings*—Of black flat mohair braid, as follows: To be edged all around the bottom, the front edges, the collar, and for six inches upward from the bottom, along both side openings of the skirt, with braid one inch wide. On each side of the breast five double rows of three-eighths inch braid with crow's feet at the outer ends; the crow's feet of the top rows extending nearly to the sleeve seams, the lowest crow's feet to be about six inches apart, according to measure of waist. On each sleeve, an Austrian knot of three-eighths inch braid, extending about nine inches upward from the bottom of the cuff; along each back-seam a double row of three-eighths inch braid ending with crow's feet at top and bottom. To have two inside breast pockets.

*Trousers*—Of light blue cloth, with stripe of white cloth, one and one-half inches wide, welted at the edges, down outer seam of each leg.

*Cap*—Same as for non-commissioned officers and privates, with the addition of a gilt cap cord.

*Gloves*—White Lislè thread.

#### BAND UNIFORM.

*Coat*—Of dark blue cloth, slit at sides, bound all around the edges, front and bottom, and slit at sides with a row of one inch black mohair braid laid on flat, and on the inside of this another row of one-eighth inch black mohair soutache set one-fourth inch from the wide braid, forming small loops at the corners and over the points of the side slits. Front to be trimmed with black soutache braid worked into a small leaf design. Invisible buttons, fly front, standing collar, braided with one inch black braid. Sleeves trimmed with black soutache braid. Small gilt lyre embroidered on each side of collar.

*Trousers*—Of dark blue cloth, with one inch black braid on outer seams.

*Cap*—Soft crown, navy pattern, dark blue with falling leather visor. Band covered with one inch black mohair braid, no braid on top; U. of I. monogram in silver. Front cord and side buttons to be gilt.

It was voted that hereafter the same number of credits for graduation should be required of the young women as of the young men, and that two credits should be given to the young women for the work done in the courses of physical culture for women, the same in time and amount as that now done by the young men in military courses 1 and 2.

The question with regard to chapel exercises was postponed to the next meeting on motion of Mr. McKay.

On motion of Mr. Raab, the board gave assent to the proposed use of Saturday forenoon for college exercises, so far as it should be found desirable.

So much of the regent's report as related to the department of pedagogics was referred to the committee on instruction, and to the same

committee was referred those parts of the regent's report relating to the age for admission, the course of study of the preparatory school, the admission credits in Latin, and the admission of graduates of the State Normal Universities to the courses in pedagogics and allied subjects.

On motion of Mr. Raab the faculty was authorized to announce in the next catalogue the courses and other requirements for the degrees of doctor of philosophy (Ph.D.), and doctor of science (Sc.D.)

Assistant Professor J. M. White was given leave of absence from June 7, 1894, and through the next college year.

The farm report was referred to the farm committee.

To the committee on instruction was referred the requests from the mechanical engineering department and the department of physics and electrical engineering.

The communication in regard to the chemical laboratory was referred to the committee on buildings and grounds; that from Professor Forbes, to the committee on instruction.

The appropriations recommended by the regent, except that for a certificate for accredited schools, were made as follows:

From current funds—

For examination of high schools.....	\$100 00
For military supplies.....	22 00
For <i>The Technograph</i> and advertisement therein .....	100 00
For regent's bill for traveling expenses.....	43 85
For commencement expenses.....	200 00
For typewriter and cabinet, regent's office.....	120 00

Taking up the report from the Agricultural Experiment Station, the recommendation of the board of direction with regard to the readjustment of the salaries of those members of the station staff who are paid in part from the university funds and in part from experiment station funds, was approved, the readjustment to take effect April 1, 1894.

In accordance with this action Professor Morrow will hereafter be paid \$1,300 from experiment station funds, and \$1,000 from university funds; W. L. Pillsbury, \$800 from station funds, and \$1,200 from university funds; F. D. Gardner, \$1,000 from experiment station funds; Mr. Mayer, \$360 from station funds, and \$240 from university funds.

Authority was given the board of direction to carry on the new experiments named in its report; also, should it be found advisable, to sell stock and buy dairy cows, and to make the Experiment Station a member of the National Dairy Congress.

The secretary reported that Mr. E. E. Chester, of Champaign; E. A. Reihl, of Alton, and H. B. Gurlier, of DeKalb, stand recommended for membership in the board of direction of the Experiment Station by the Illinois State Board of Agriculture, Illinois State Horticultural Society, and the Illinois Dairymen's Association, respectively.

These gentlemen were thereupon elected members of the board of direction of the Experiment Station for the year beginning April 1, 1894.

Messrs. Morrison and Raymond were elected members for the same time; also Professor Morrow, Professor Burrill, Professor Forbes, and Mr. E. H. Farrington.

Professor Morrow was made president of the board of direction, and Messrs. Chester and Raymond were designated as the two members of the board of direction who should, with its president, Professor Morrow, constitute its executive committee.

The committee on buildings and grounds reported that it was offered the Bronson strip of land, lying west of Mathews avenue, for \$5,400, one-third cash, the rest in one and two years, with interest at 7 per cent., or for \$5,000 cash.

The board then adjourned, to meet a 8 o'clock p. m., at the Doane House, in Champaign.

# EVENING SESSION.

The board met at the Doane House pursuant to adjournment.

The committee on instruction made the following report:

URBANA, ILL., March 13, 1893.

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

GENTLEMEN: Your committee on instruction makes the following recommendations:

1. That Evarts Boutell Greene, Ph.D., be appointed assistant professor of history; term of service to commence September 1, 1894, and salary not to exceed \$1,800 a year.

2. That a model school be established in connection with the department of pedagogics; that two rooms be assigned to this school and fitted up for its use; that the University employ a teacher at a salary not to exceed \$600 a year; that a proposition be made to the board of education of the city of Urbana to furnish pupils for this model school, to the number of forty, and a second teacher, who shall be a person approved as satisfactory by the professor of pedagogics, and shall be paid by the board of education of the city of Urbana, not less than \$600 a year. In case this proposition is not accepted by the Urbana school board, that a second teacher shall not be employed without further action by this board.

3. That no person under sixteen years of age shall hereafter be admitted to the University.

4. That hereafter a two years' course be offered in the preparatory school.

5. That graduates of the state normal universities be admitted on their diploma of graduation to the courses in pedagogics and allied subjects and be granted a certificate on completion of a two years' course.

6. The committee recommends that \$1,800 be appropriated for the establishment by the zoological department of the University, of a biological station at Havana, and other purposes, in accordance with recommendations made by Professor Forbes.

7. That Professor Snyder be given a leave of absence for one year, from September 1, 1894, on half pay; that Assistant Professors Shea, Kinley, and Bruner, be made full professors in their several departments, and that Mr. Pence be made assistant professor of civil engineering.

Respectfully submitted,

F. M. MCKAY,	} Committee on Instruction.
HENRY RAAB,	
J. E. ARMSTRONG,	

The report of the committee was approved and the appropriations were made as therein recommended.

The board adjourned to meet at 9 o'clock a. m. in the University parlor.

# WEDNESDAY MORNING SESSION.

When the board met pursuant to adjournment the same members were present as the day before, except Mr. McKay.

An appropriation of \$20.00 was made from current funds to reimburse the treasurer, Mr. C. W. Spalding, for the accrued interest paid on the Gallatin county bond purchased for the endowment fund, November 30, 1893.

An appropriation of \$17.64 was made to pay for advertising in *The Illini*.

The finance committee presented the following reports, which were severally adopted. All appropriations therein recommended were made.

URBANA, ILL., March 14, 1894.

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

GENTLEMEN: Your finance committee reports that it has examined the report of the treasurer, C. W. Spalding, herewith attached, for the three months ending February 28, 1894, and finds the same correct.

The committee finds that on September 1, 1893, the treasurer had on hand \$33,377.50 belonging to the endowment fund; that since then there has been collected on the land contracts in Minnesota, \$4,142.00; and that Gallatin county 6 per cent. bonds, to the amount of \$10,000.00, have been purchased at par, leaving a balance of cash on hand in the endowment fund, March 1, 1894, of \$27,519.50. The committee recommends that this sum be at once invested in such securities as may be held, according to law, as a part of the endowment fund. It should be stated, however, that Mr. Spalding has told your committee that he is negotiating for additional bonds and hopes to consummate a purchase at an early date.

Respectfully submitted,

ALEXANDER MCLEAN, } *Finance Committee.*  
J. E. ARMSTRONG, }

## TREASURER'S REPORT.

CHARLES W. SPALDING, TREASURER, IN ACCOUNT WITH THE UNIVERSITY OF ILLINOIS, FEBRUARY 28, 1894.

		<i>Dr.</i>	
1893.			
December	1	To balance .....	\$190,081 23
"	1	From S. W. Shattuck on account of general fund.....	\$1,646 60
"	7	Principal on contract No. 81, Frank Topka.....	150 00
"	7	Interest .....	73 50
"	20	" " No. 86, Anne Hanson.....	23 10
"	26	Principal on contract No. 60, James Havlina.....	120 00
"	26	Interest .....	9 60
"	26	Principal on contract No. 59, Frank Havlina.....	120 00
"	26	Interest .....	9 60
"	26	" " No. 36, L. H. Ruyle, assignee .....	120 00
"	26	Principal on contract No. 5, Bashor & Ault.....	575 00
"	26	Interest .....	46 00
"	26	" " No. 73, Olof Mattson .....	84 00
"	26	" " No. 65, Joseph Cuta .....	84 00
"	26	" " No. 62, R. H. Muhlhausen .....	132 00
"	26	" " No. 109, Otto Monson .....	28 00
"	27	From W. L. Pillsbury, transferring his personal account from university books, which amount is credited to experi- ment station account .....	407 76
"	28	Interest on contract No. 61, O. B. Webb, assignee.....	104 00
"	28	" " No. 64, Eric Lindquist.....	84 00
"	29	From S. W. Shattuck on general fund account.....	2,230 29
"	30	Interest on contract No. 31, J. H. Hanson.....	40 00
"	30	Principal .....	200 00
"	30	Interest " No. 45, Blivens & Miller.....	124 48
"	30	Principal " No. 47, M. Hubka.....	200 00
"	30	Interest .....	113 15
"	30	" " No. 53, F. Novotny, assignee.....	56 00
"	30	" " No. 57, C. Anderson .....	24 00
"	30	Principal " No. 34, J. & H. J. Swoboda.....	200 00
"	30	Interest .....	16 00
"	30	Interest to date on endowment fund at 4 per cent.....	117 94
"	30	Interest to date on other funds at 2½ per cent.....	286 22
1894.			
January	2	Part interest on contract No. 106, Peter Teden.....	75 00
"	2	Interest on contract No. 63, R. O. Braaten.....	4 39
"	2	" " No. 97, M. O. Batterbury.....	52 50
"	2	" " No. 40, Joseph Dezort.....	96 00
"	2	" " No. 75, S. J. Hallquist.....	84 00
"	2	" " No. 76, S. J. Hallquist.....	84 00
"	2	" " No. 108, P. E. Olson.....	120 75
"	2	Principal " No. 71, Thomas Peterson.....	50 00
"	2	Interest .....	7 70
"	3	Principal " No. 79, Ole Sorenson.....	20 00
"	2	Interest .....	75 00
"	2	" " No. 67, J. A. DuBois.....	28 00
"	2	" " No. 87, Laura DuBois, assignee.....	105 00

*Treasurer's Report—Continued.*

1894.			
January	2	Principal on contract No. 77, William Buethe.	\$400 00
"	2	Interest " " " "	42 00
"	2	Principal " " No. 78, " "	400 00
"	2	Interest " " " " " "	42 00
"	2	Principal " " No. 80, " assignee.	120 00
"	2	Interest " " " " " "	75 60
"	2	" " " " No. 98, John T. Egan.	52 50
"	2	Interest on Gallatin county bonds.	330 00
"	2	" " Crawford county bonds.	600 00
"	2	" " Austin bonds.	575 00
"	2	" " contract No. 112, Ole Lundquist.	66 35
"	2	" " " " No. 90, A. Skredsvig.	105 00
"	4	" " " " No. 96, Henry Lia.	21 00
"	4	" " " " No. 93, L. S. Botten.	40 25
"	4	Part principal on contract No. 93, L. S. Botten.	15 00
"	5	Interest on Mansfield bonds.	243 00
"	5	Received on account of taxes advanced on land, Olaf Mattson	12 00
"	6	Interest on contract No. 69, Berthal Pederson.	14 70
"	6	" " " " No. 74, " "	14 70
"	8	" " " " No. 41, U. M. Losey.	68 00
"	8	" " " " No. 42, F. L. Mars, assignee.	40 00
"	8	" " " " No. 35, Rush & Bashor, assignees.	48 00
"	8	Received from S. W. Shattuck, account of general fund.	2,463 40
"	10	Received from U. S. treasurer, account Experiment Station.	3,750 00
"	10	Principal on contract No. 99, Nels Olson.	100 00
"	10	Interest " " " " " "	49 00
"	10	" " " " No. 42, H. R. Simpson, assignee.	40 00
"	10	" " " " No. 38, " "	64 00
"	11	" " " " No. 58, E. Muhlhausen.	114 00
"	18	Principal " " No. 10, John Ellis, assignee.	300 00
"	18	Interest " " " " " "	25 00
"	19	Principal " " No. 54, B. F. Leiby.	272 00
"	19	Interest " " " " " "	128 95
"	20	Received of W. L. Pillsbury on experiment station farm account.	10 60
"	20	Interest on contract No. 24, Peter Mooney, assignee.	39 38
"	20	" " " " No. 25, " "	158 62
"	20	Principal " " " " " "	600 00
"	26	Interest " " " " No. 66, Peter Larson.	84 37
"	29	Principal " " " " No. 31, J. H. Hansen, due 1-1-'95.	300 00
"	29	Interest " " " " " " 1-1-'95.	24 00
"	29	" " " " No. 32, P. C. O'Brien.	124 33
"	30	" " " " No. 37, W. T. Gore, assignee.	96 75
"	31	Interest on endowment fund to date at 4 per cent.	91 20
"	31	Interest on other funds to date at 2½ per cent.	246 17
February	1	Received from S. W. Shattuck on general fund.	1,957 25
"	1	Interest due Feb. 1, 1894, on Mattoon bonds.	150 00
"	1	Interest due Feb. 1, 1894, on Champaign county bonds.	270 00
"	3	Received from W. L. Pillsbury on farm account.	12 84
"	8	Received from S. W. Shattuck on general fund.	2,841 59
"	14	Interest on contract No. 91, O. O. Halvorson.	63 00
"	14	" " " " No. 92, " "	63 00
"	14	" " " " No. 93, " "	78 75
"	14	" " " " No. 94, " "	43 75
"	14	" " " " No. 100, " "	26 25
"	14	Accrued interest on above.	2 35
"	15	From S. W. Shattuck on general fund.	1,000 00
"	27	" " " " " "	1,501 93
"	28	From W. L. Pillsbury on farm account.	54 48
"	28	Interest on endowment fund to date at 4 per cent.	85 52
"	28	Interest on other funds to date at 2½ per cent.	190 79
			\$28,946 55
			<u>\$218,977 78</u>
<i>Cr.</i>			
1894.			
February	28	By amount paid on account general fund, as per list of warrants attached hereto.	\$17,344 00
"	28	By amount paid on account of state appropriations, as per list of warrants attached hereto.	56,165 29
"	28	By amount paid on account State Laboratory of Natural History, as per list of warrants attached hereto.	2,379 02
"	28	By amount paid on account of U. S. fund, as per list of warrants attached hereto.	7,355 49
"	28	By amount paid on account of U. S. experiment station fund, as per list of warrants attached hereto.	4,141 39
"	29	By amount paid out of endowment fund for ten Gallatin county bonds.	10,000 00
			\$97,385 19

*Treasurer's Report—Concluded.*

Balances—			
General fund.....	\$6,251 86		
State appropriations.....	79,852 27		
U. S. fund.....	4,548 59		
U. S. experiment station fund.....	3,342 45		
Endowment fund.....	27,519 50		
U. S. experiment farm account.....	77 92		
			\$121,592 59
			\$218,977 78

URBANA, ILL., March 14, 1894.

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

GENTLEMEN: Your finance committee has examined the vouchers submitted by the business agent, Mr. S. W. Shattuck, No. 1 to 575, inclusive, for the quarter ending November 30, 1893, and finds them correct and duly receipted. The committee also find that voucher No. 1,037, which was not on file at the date of the last report, is now on file and duly receipted.

The committee also examined the experiment station vouchers, No. 66 to 133, inclusive, for the quarter ending December 31, 1893, and found the same correct and duly receipted.

Respectfully submitted,

ALEXANDER MCLEAN, } *Finance Committee.*  
J. E. ARMSTRONG, }

URBANA ILL., March 14, 1894.

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

GENTLEMEN: Your finance committee, to which was referred Professor Shea's communication concerning an appropriation for the electrical engineering department, and additional assistants for the same, begs leave to report that it fully agrees with Professor Shea as to the necessity of such appropriation and assistants, and that it believes that the board must make such arrangements in the near future; in fact, at the first moment that the state of our finances will admit. The committee recommends that the subject be given careful consideration at the next meeting of the board.

Your committee also recommends that the balance of the United States fund, \$407.64, be assigned to the electrical engineering department, as recommended by the business agent.

The committee further recommends that inasmuch as the apparatus and supplies needed for the physics and electrical engineering departments must be in a large measure manufactured after they are ordered, and imported from abroad, the business agent and Professor Shea be authorized to order apparatus and supplies to cost not more than \$4,000, payment not to be made until after July 1, 1894.

Your committee also recommends appropriations for expenses for the three months ending May 31, 1894, as asked by the business agent.

Board expenses.....	\$400 00
Salaries for instruction and regent.....	20,000 00
Salaries for services.....	2,000 00
Buildings and grounds.....	600 00
Fuel and lights.....	1,000 00
Stationery, printing, and catalogue.....	1,000 00
Laboratories.....	200 00
Library and apparatus.....	50 00
Incidentals.....	200 00
Water supply.....	125 00
Furniture and fixtures.....	100 00
Mechanical, architectural, agricultural, and horticultural departments.....	300 00
Military department.....	25 00
Heating apparatus.....	100 00
Accredited schools, balance.....	44 87
Band music, balance.....	7 90
<i>Illini</i> subscription, balance.....	321 34
Gymnasium, balance.....	56 33
Art department, balance.....	16 97
Music and piano, balance.....	48 00
World's Fair exhibit, balance.....	250 00
Total.....	\$26,845 40

The committee also recommends the following assignments from the State appropriations:

Salaries for instruction.....	\$13,500 00
Machine shops.....	300 00
Buildings and grounds.....	190 53

These assignments close out the state appropriation for current expenses.

The committee recommends that \$147.43 be appropriated to defray expenses in relation to the World's Fair exhibit in excess of the amounts already appropriated.

The committee recommends that Dr. Burrill and the business agent be authorized to purchase apparatus for the botanical department to the amount of \$50, the same to be paid for after July 1, 1894.

Respectfully submitted,

ALEXANDER MCLEAN, } *Finance*  
J. E. ARMSTRONG, } *Committee.*

The committee on buildings and grounds made the following report:

#### ENGINEERING HALL.

URBANA, ILL., March 14, 1894.

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

GENTLEMEN: Your committee on buildings and grounds reports that work on Engineering Hall is now progressing fairly well. At the beginning of winter the frost affected the stone somewhat, as it had been newly quarried; and in order that the building should not be injured, the superintendent ordered that the laying of stone in the walls be discontinued. The beginning of March work was started anew and will now be pushed as rapidly as practicable. The work that has been done is satisfactory.

The contractors have been paid on estimates of the superintendent since the last report of this committee—January 1, 1894, \$13,739.65; February 1, 1894, \$8,796.60; March 1, 1894, \$10,037.72.

The committee recommends the payment of \$1,200 to the architect and superintendent, to apply on services.

Additional blue prints have been prepared at an expense of \$14.40; an appropriation is asked for this amount.

The fact that the second installment of the appropriation for the building will not be paid to our treasurer till July 1st, has caused the committee to delay asking for bids for contracts for heating apparatus, etc. Appropriations and contracts for this purpose will be ready for confirmation at the meeting in June.

Respectfully submitted,

S. A. BULLARD, } *Committee on*  
N. B. MORRISON, } *Buildings and Grounds.*

The report of the committee was approved for record, and appropriations made as asked therein.

The following report was received from the same committee:

URBANA, ILL., March 14, 1894.

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

GENTLEMEN: The committee on buildings and grounds recommends that the president of this board and the executive committee be authorized and directed to purchase of Mrs. Nina B. Bronson so much of the land known as the Bronson tract of land, adjacent to the University grounds, as lies west of the west line of Mathews avenue, formerly Nelson avenue, amounting to 6½ acres, more or less. The committee further recommends that the executive committee be authorized to pay for this land \$4,500 and the fees of transfer.

Respectfully submitted,

S. A. BULLARD, } *Committee on*  
N. B. MORRISON, } *Buildings and Grounds.*

The report of the committee was approved and an appropriation of \$4,500 from current funds was made for this purpose.

Mr. Bullard offered the following resolution and moved its adoption:

*Resolved*, That the committee on buildings and grounds be directed to investigate the probability of finding natural gas on the University lands, and to expend, if it should be found for the interest of the University to do so, not to exceed \$500 in this investigation and in utilizing the gas, if found.

The resolution was adopted, and \$500 was appropriated from current funds for this purpose.

The committee on instruction, together with the committee of the faculty, made the following report of a plan for a summer school:

#### SUMMER SCHOOL.

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

GENTLEMEN: Your committee to which was referred the subject of details of a plan for a summer school to be held at the University begs respectfully to report that it has given the matter careful attention, and recommends that a summer school be held, to begin June 18th and continue four weeks, with a charge for tuition of \$10 for the session for each student. It is assumed that the usual laboratory fees and charges will be made to students taking laboratory work.

As this is intended as a University, not a private, enterprise, we are of the opinion that instructors should receive pay, corresponding to the service engaged, at about the usual rate for University instruction. The rate of about one-tenth the regular yearly salary of the several professors and instructors is suggested. We further advise that the following subjects only be provided for this first year, viz: athletics, zoölogy, physiology, botany, chemistry, English literature, pedagogy, psychology, political economy and history.

It is recommended that where work is done on university subjects, under the tuition of the regular university instructors, in amount to equal a full term's work in any course, credit should be given on the records of the University for such work, its value to be determined by such ex-



aminations as are usual in the department to which it belongs. It is further advised that opportunity be given to university students, conditioned in their regular courses, to work off those conditions at this summer school.

The libraries and laboratories of the University should, of course, be open to students of this school.

In order to reduce as much as possible the expense of this session, which must at best far outrun receipts, we advise that different subjects be thrown together under one instructor whenever this is feasible. Zoölogy and physiology may be thus united, pedagogy and psychology, political economy and history, with the effect to reduce the number of instructors required to seven.

It is to be presumed that those teaching only single subjects at this summer school need not be engaged more than half their time. On the supposition that those thus employed would be willing to give their services for half the salary above recommended, we find that the total expense for salaries could not well be less than \$800, and would more likely approximate \$1,000 for the session. On the other hand, the income of the school for tuition at an estimated attendance of fifty students would not exceed \$500, leaving an estimated deficiency of at least \$500 to be met by appropriation. It seems to us that the trustees should appropriate \$1,000 for salaries and, say, \$200 for advertising and incidental expenses,—or so much of these sums as may be found necessary,—with the understanding that all receipts for tuition, laboratory fees, etc., shall be applied in payment of salaries and expenses before this appropriation is drawn upon.

We have further to recommend that Professor McMurry be made director of the school and charged with all details of the arrangements and with the general supervision of its work, under regulations to be established by the trustees and faculty; and that Professor Kinley be made assistant director, to take charge during Professor McMurry's absence.

As the committee on instruction has not had an opportunity to communicate personally with the members of the faculty understood to be available for summer school work, we suggest that this committee be empowered to make engagements within the limits of the appropriation for salaries.

Respectfully submitted,

F. M. MCKAY,  
J. E. ARMSTRONG, } *Committee on Instruction.*  
HENRY RAAB,

S. A. FORBES, }  
H. J. BARTON, } *Faculty Committee*  
F. M. MCMURRY, } *on Summer School.*

The report of the committee was approved, and \$1,200 was assigned to be used as provided in the report.

The committee on finance made the following report, which was adopted, and the treasurer was instructed to make the transfer proposed:

URBANA, ILL, March 14, 1894.

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

GENTLEMEN: Your committee on finance recommends that the treasurer be instructed to effect a transfer between the endowment fund and the general fund, as follows:

Of the Kankakee county bonds, held as part of the general fund, \$5,000 shall be transferred to the endowment fund, and \$5,000 of cash, held as part of the endowment fund, shall be transferred to the general fund.

Respectfully submitted,

ALEXANDER MCLEAN, }  
J. E. ARMSTRONG, } *Finance Committee.*

The committee on instruction made the following report, which was adopted:

URBANA, ILL., March 14, 1894.

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

GENTLEMEN: Your committee on instruction recommends that in pursuance of the adjustment of salaries between the University and the Experiment Station, the University hereafter pay W. L. Pillsbury \$1,200 a year, and John Mayer, gardener in charge of the greenhouse, \$20 a month.

Respectfully submitted,

J. E. ARMSTRONG, } *Committee*  
HENRY RAAB, } *on Instruction.*

The committee on instruction made the following report, which was adopted:

#### APPOINTMENTS.

URBANA, ILL., March 14, 1894.

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

GENTLEMEN: Complying with the vote of the board at its last meeting to the effect that the annual appointments of instructors and assistants should be made at the March meeting of the board, your committee proposes the following persons for re-appointment:

Messrs. G. W. Parker, G. P. Clinton, T. A. Clark, C. D. McLane, C. B. Clark, W. E. Sandford, H. S. Piatt, H. E. Parker, J. D. Phillips, C. A. Gunn, A. H. White, W. Esty, B. V. Swenson, L. W. Peabody, A. R. Curtiss, F. Smith, A. H. Daniels, Miss Edith Shattuck, Miss Alice M. Barber, Miss Anita M. Kellogg; also Messrs. E. G. Howe and N. A. Weston, of the preparatory school.

In most cases, the work for the next college year will be the same for these persons as it has been the past year, but your committee recommends that specific assignment to work and also the fixing of salaries be deferred till the next meeting of the board.

The committee also recommends that George W. McCluer be appointed instructor in horticulture, and receive for services thus rendered \$180 a year, his term of service and salary to begin April 1, 1894.

Respectfully submitted,

J. E. ARMSTRONG, } *Committee*  
HENRY RAAB, } *on Instruction.*

The committee on instruction made the following report:

#### CLASSIFICATION AND SALARIES OF FACULTY.

URBANA, ILL., March 14, 1894.

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

GENTLEMEN: Your committee on instruction reports the following schedule for the classification and salaries of members of the faculty:

1. The titles to be professor, associate professor, assistant professor, instructor and assistant.

2. That the deans of the colleges shall be elected annually by the board of trustees.

3. That the salaries be respectively: Deans, \$2,000, with an annual increase of \$100 to \$2,500; professors, \$1,800, with an annual increase of \$100 to \$2,250; associate professors, \$1,600, with an annual increase of \$50 to \$2,000; assistant professors, \$1,200, with an annual increase to \$1,800; instructors, \$800, with an annual increase of \$50 to \$1,200; assistants, \$600, with an annual increase of \$50 to \$800; fellows, \$400 a year.

4. That no promotion from rank to rank, and no increase of pay by reason of years of service shall be made except by a specific vote of the board of trustees.

Respectfully submitted,

J. E. ARMSTRONG, } *Committee*  
HENRY RAAB, } *on Instruction.*

This report was adopted, and the regent and the committee on instruction were directed to classify for the catalogue of this year the present corps of instructors, in accordance herewith.

F. H. Dodge, of Chicago, was appointed director of the gymnasium and instructor in athletics, at a salary of not to exceed \$1,600 a year; term of service to begin September 1, 1894.

The farm committee made the following report:

URBANA, ILL., March 14, 1894.

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

GENTLEMEN: Your farm committee respectfully reports that, inasmuch as the larger portion of the agricultural appliances, stock, etc., has been turned over to the Experiment Station, it is recommended that a committee (the professor of agriculture being a member thereof) be appointed to reconstruct and revise the agricultural department of the University, visiting and examining, if necessary, agricultural departments of other institutions of like character with this, and to report, if practicable, a plan of organization for the department, and any further suggestions, as the committee may desire, at the next meeting of the board.

The committee also recommends that the sum of \$100 be appropriated for drainage purposes on the experiment farm.

Respectfully submitted,

N. B. MORRISON, } *Farm Committee.*  
ALEX. McLEAN, }

The report was adopted, and \$100 was appropriated from current funds for the purpose named.

The business agent made the following report:

#### BUSINESS AGENT'S REPORT.

UNIVERSITY OF ILLINOIS, March 13, 1894.

*Nelson W. Graham, Esq., President Board of Trustees of University of Illinois,*

SIR: I have the honor to hand you herewith the following named financial statements and papers due from me at this time:

*Paper A.* a statement of the current appropriations for the three months ending February 28, 1894.

*Paper B.* a showing of the state appropriations February 28, 1894.

*Paper C* and *C 2nd*, the same for the United States fund.

## PAPER A—CURRENT APPROPRIATIONS.

December 13, 1893.	Appr'p'iated.	Receipts appr'p'iated.	Expended.	Balance.
Board expense.....	\$600 00	.....	\$331 21	\$268 79
Salaries for instruction { Current State..... }	19,249 86	.....	{ 4,311 86 {	62 32
Salaries for services.....	2,237 50	.....	2,217 87	19 63
Buildings and grounds.....	500 00	\$7 50	293 03	214 47
Fuel and lights.....	2,000 00	40 00	1,920 07	119 93
Stationery and printing.....	600 00	.....	448 79	151 21
Preparatory school.....	.....	1,236 00	900 14	335 86
Minnesota lands.....	.....	142 00	85	141 15
Mechanical department.....	365 00	462 47	821 35	6 12
Architectural department.....	50 00	1,467 14	1,500 20	16 94
Agricultural department.....	.....	949 71	169 82	779 86
Horticultural department.....	50 00	60 40	72 10	38 30
Military department.....	75 00	.....	8 49	66 51
Laboratories.....	350 00	601 51	942 81	9 00
Library and apparatus.....	50 00	.....	44 61	5 39
Incidentals.....	322 98	.....	292 46	30 52
Accountant.....	450 00	.....	450 00	.....
Water supply.....	125 00	.....	125 00	.....
Furniture and fixtures.....	355 00	.....	201 78	153 22
Heating apparatus.....	200 00	.....	200 00	.....
Accredited schools.....	135 00	.....	90 13	44 87
University bulletins.....	100 00	.....	.....	100 00
Ladies' Reception room.....	32 25	.....	32 25	.....
Music room.....	27 45	.....	19 00	17 45
Art department.....	49 70	.....	32 73	16 97
Music and piano.....	63 00	.....	15 00	48 00
Band instruments, etc.....	60 00	.....	52 10	7 90
Agricultural schools.....	250 00	.....	79 07	170 93
World's Fair exhibit.....	744 29	152 47	910 52	.....
Illini.....	337 50	.....	16 17	321 33
Gymnasium.....	156 00	.....	195 67	50 33
Young ladies' gymnasium.....	50 00	.....	.....	50 00
Farm house.....	665 10	.....	456 70	208 40
Agricultural congress.....	21 10	.....	21 10	.....

## PAPER B—STATE APPROPRIATIONS.

February 28, 1894.	Received.	Expended.	Balance.	Assigned.
Cabinets.....	\$1,000 00	\$758 83	\$241 17	\$241 17
Taxes on Minnesota lands.....	1,381 79	1,381 79	.....	.....
Furnishing and heating Natural History Hall.....	6,000 00	4,784 69	1,215 31	1,215 31
Boiler and coal house.....	6,500 00	.....	6,500 00	6,500 00
Engineering building.....	80,000 00	39,545 85	40,454 15	40,454 15
Municipal engineering.....	50 00	7 00	43 00	43 00
Greek.....	100 00	53 24	46 66	46 66
Psychology.....	800 00	555 51	244 49	244 49
Chemistry.....	500 00	500 00	.....	.....
Botany.....	200 00	129 77	70 23	70 23
Library.....	5,000 00	1,226 54	3,773 46	3,773 46
Geology.....	400 00	400 00	.....	.....
Physiology.....	100 00	76 16	23 84	23 84
Architectural cabinet.....	175 00	109 90	65 10	65 10
World's Fair material.....	2,000 00	2,135 67	.....	.....
Physical culture.....	210 00	142 27	67 73	67 73
College of literature.....	200 00	91 95	108 05	108 05
Buildings and grounds.....	3,662 10	3,657 93	4 17	4 17
Outside closets.....	2,500 00	2,500 00	.....	.....
Faculty toilet room.....	409 18	409 18	.....	.....
Ladies' toilet room.....	150 00	150 00	.....	.....
Class rooms Natural History Hall.....	190 00	190 00	.....	.....
World's Fair overdraft.....	133 67	.....	.....	.....
Chemical laboratory store room.....	800 00	800 00	.....	.....
Chemical laboratory desks.....	550 00	550 00	.....	.....
Mechanical laboratory.....	100 00	.....	100 00	100 00
Shop practice classes.....	300 00	300 00	.....	.....
Salaries for instruction.....	27,479 46	27,479 46	.....	.....
Balance of \$60,000 appropriation.....	13,990 59	.....	13,990 59	.....
	<u>\$154,881 79</u>	<u>\$87,933 84</u>	<u>\$66,947 95</u>	<u>\$52,957 36</u>
Illinois State Laboratory of Natural History.....	\$8,563 26	\$4,502 84	\$4,060 42	\$430 82

## PAPER C—UNITED STATES FUND.

	Received.	Expended.	Balance.	Assigned.
<i>Year ending June 30, 1892.</i>				
Before reported on.....	\$14,750 00	\$14,750 00		
Library.....	2,000 00	2,000 00		
English literature.....	150 00	139 33	\$10 67	\$10 67
Metallurgical laboratory.....	100 00		100 00	100 00
Total.....	\$17,000 00	\$16,889 33	\$110 67	\$110 67
<i>Year ending June 30, 1893.</i>				
Before reported on.....	\$17,142 59	\$17,142 59		
Agricultural lectures.....	250 00	152 50	\$97 50	\$97 50
Veterinary department.....	86 91	32 10	54 81	54 81
Testing laboratory.....	40 00	40 00		
College of engineering.....	216 50	216 50		
Architectural department.....	264 00	264 00		
Total.....	\$18,000 00	\$17,847 69	\$152 31	\$152 31
<i>Year ending June 30, 1894.</i>				
Before reported on.....	\$4,569 90	\$4,569 90		
Physics and electricity.....	5,400 00	5,400 00		
Testing laboratory.....	1,700 00	430 92	\$1,269 08	\$1,269 08
Geology.....	300 00	69 92	230 08	230 08
Zoology.....	1,000 00	985 41	14 59	14 59
Chemistry.....	490 00	41 95	448 05	448 05
Civil engineering.....	950 00	917 88	32 12	32 12
Mechanical engineering.....	3,093 13	2,832 38	260 75	260 75
Municipal engineering.....	700 00	60	699 40	699 40
Architecture.....	500 00	322 87	177 13	177 13
Unassigned.....	296 97		296 97	
Total.....	\$19,000 00	\$15,571 83	\$3,428 17	\$3,131 20

Paper D, a list of vouchers presented for audit, being 1 to 575 inclusive.

Paper E, an estimate of receipts and expenses for the six months ending September 1, 1894.

Paper F, an estimate of receipts and expenses, current funds, for the three months ending June 1, 1894.

Paper G, several bills presented for the action of the board.

Paper H, the inventories of the several departments.

Paper I, several communications from the Urbana and Champaign Electric Street Railway Company.

The board is requested to appropriate the amount given under the head of expenses in Paper F, and for the overdraft on account of the World's Fair exhibit, Paper A, \$13.76, and World's Fair material, Paper B, \$133.76. The expenditures under these two appropriations were not under my control, being in the hands of committees. That for the exhibit return was much larger than was expected, because of the large amount of furniture, cases, etc., presented to the University by the Illinois Board of World's Fair Commissioners.

The board is also requested to make the following assignment of funds:

From the state appropriation of \$60,000 00—

Salaries for instruction.....	\$13,500 00
Shop practice expenses.....	300 00
Buildings and grounds.....	190 59

\$13,990 59

From the United States fund—

Electrical engineering.....\$ 407 64

This amount is made up from the unexpended balance for the year ending June 30, 1892, and the unassigned amount for the year ending June 30, 1894. The department is greatly in need of the money, and has unpaid bills now for the greater part of the amount.

I have not had time to compile the inventories so as to present a proper showing of them at this time, but will do so for the June meeting of the board.

Respectfully submitted,

S. W. SHATTUCK,

*Business Agent.*

Appropriations for the State Laboratory of Natural History for the six months ending June 30, 1894, were made as follows:

For field work, office and incidental expenses.....\$1,500 00  
For salaries and assistance..... 1,750 00

The business agent was authorized to pay the bill of the Urbana and Champaign Electric Railway company, on account of cutting the wires to let the farm house cross the railway track. He was also authorized to adjust and pay the bill for power furnished the electrical engineering department.

The regent and the executive committee of the board were appointed a committee on legislation.

The following communication was received from Professor Morrow:

UNIVERSITY OF ILLINOIS, March 13, 1894.

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

GENTLEMEN: I hereby tender to you my resignation as professor of agriculture, member of the board of direction and agriculturist of the Agricultural Experiment Station of the University, to take effect at the close of the present university year, September 1, 1894.

Very respectfully,

G. E. MORROW.

The resignation was referred to the committee on instruction, to be reported on at the June meeting.

The president appointed Dr. Burrill and Messrs. Morrison and Raymond upon the special committee in regard to the agricultural college.

The committee on instruction was authorized to provide for the classes left without a teacher by the leave of absence given Professor Snyder, expense for this purpose being limited to \$1,000.00 for the year 1894-5.

The board adjourned.

W. L. PILLSBURY,

*Secretary.*

N. W. GRAHAM,

*President.*

## MEETING OF APRIL 13, 1894.

The Board of Trustees of the University of Illinois met in one of the parlors of the Lexington Hotel, in Chicago, at 8 o'clock p. m. Friday, April 13, 1894, pursuant to the following call:

URBANA, ILL., April 6, 1894.

By order of the president, Mr. Graham, there will be a special meeting of the Board of Trustees of the University of Illinois, at the Lexington Hotel, Chicago, Friday evening, April 13, 1894, for these purposes:

1. To consider the regency question.
2. To transact other business, as found necessary.

Respectfully yours,

W. L. PILLSBURY,

*Secretary.*

There were present Messrs. Armstrong, Bryant, Bullard, Graham, McKay, McLean, Morgan, Morrison, and Raymond; absent, Governor Altgeld and Messrs. Gore and Raab.

After the call for the meeting had been read, the following committee report was presented:

*To the Board of Trustees.*

GENTLEMEN: Your committee appointed to confer with Dr. A. S. Draper in regard to the regency of the University, begs leave to report that it visited Dr. Draper, in Cleveland, Ohio, and that after full consideration, it recommends his appointment to the office of regent.

T. J. BURRILL,	} <i>Committee.</i>
NELSON W. GRAHAM,	
J. E. ARMSTRONG,	

On motion of Mr. McLean, the report of the committee was received. Each member of the committee stated his reasons for joining in the report, and after some discussion, in which all the members of the board took part. Dr. Draper, who was at the hotel, was invited to confer with the board.

When, after a conference of some length, Dr. Draper had retired, the report of the committee was unanimously adopted on motion of Mr. Bullard, it having first been amended by the addition of the words, "at a salary of \$7,000 a year."

On motion of Mr. Morgan, the committee which had visited Dr. Draper at Cleveland, was instructed to notify him of this action of the board.

The following motion, offered by Mr. Morgan, was carried:

That the trustees and faculty of the University of Illinois extend a cordial invitation to Mrs. Potter Palmer to participate in the commencement exercises on the 6th of June next, and to deliver an address on that occasion.

On motion of Mr. McLean, Mr. Morgan and Dr. Burrill were appointed a committee to present this invitation to Mrs. Palmer. The same committee was also instructed to ask Dr. Draper to be present at commencement and deliver an address.

On motion of Mr. McLean, \$200 was appropriated from current funds, for board expenses.

The board adjourned.

W. L. PILLSBURY,

*Secretary,*

N. W. GRAHAM,

*President.*



## MEETING OF JUNE 5, 1894.

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The Board of Trustees of the University of Illinois met in the University Parlor, in Urbana, at 3 o'clock p. m., Tuesday, June 5, 1894. There were present Messrs. Armstrong, Bullard, Graham, McKay, McLean, and Raymond; absent, Governor Altgeld, and Messrs. Bryant, Gore, Morgan, Morrison, and Raab.

The regent presented his report:

### REGENT'S REPORT.

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

GENTLEMEN: I take pleasure in communicating to you the recommendation of the faculty that you give authority to confer degrees as follows:

### DEGREES.

COLLEGE OF AGRICULTURE. Degree of Bachelor of Science.

Herbert Hill Braucher.

COLLEGE OF ENGINEERING. Degree of Bachelor of Science.

*Course in Mechanical Engineering.*

Robert Alvin Wood.

*Course in Electrical Engineering.*

Louis William Barker,

Thomas Crawford,

Otto Emil Goldschmidt,

Thomas Jasper,

Otto Bauman,

Ferdinand John Foote,

George Herman Heideman,

Frederick Slater,

Charles Henry Trego.

*Course in Civil Engineering.*

Levi Patten Atwood,

Harrison Easton Beasley,

Alfred Bradford Foster,

Dietrich Herman Jansen,

Peter Mogensen,

Clyde Leslie Babcock,

Paul Chipman,

Robert Eugene Gaut,

John Albert Lowry,

Thomas Percival Walton.

*Course in Municipal and Sanitary Engineering.*

Richard Jay Dickinson.

*Course in Mining Engineering.*

John Joseph Rutledge.

*Course in Architecture.*

Howard Allen Browning,	Arthur Willis Bush,
Clarence James Butterfield,	Amos Cable Clark,
Albert Johannsen,	Oskar Augustus Johannsen,
John William Kennedy,	Conrad Bryant Kimball,
Ernest McConnell,	Grant Clark Miller,
Albert Charles Phelps,	Edwin Warren Stocker.

## COLLEGE OF SCIENCE. Degree of Bachelor of Science.

Birch David Coffman,	Theodore Christian Frye,
Joseph Edward Hallinen,	Benjamin Baldwin Holston,
Charles Frederick Hottes,	Harrison Madison McCaskrin,
Louise Elizabeth McCaskrin,	Maude E Nichols,
Albert Schneider,	Charles Thornton Wilder.

*Course in Chemistry.*

Silas Jackson Eakle,	Martin Jonas Engberg,
Frederick Samuel Holbrook,	Fred William Kerchner,
Elnathan Kemper Nelson,	William Strauss,
Albert Philip Sy,	Willis Eugene Tower.

## COLLEGE OF LITERATURE. Degree of Bachelor of Arts.

Pearl Boggs,	Hiram Burns Ferris,
William Grant Spurgin,	Benjamin Franklin Templeton.

## COLLEGE OF LITERATURE. Degree of Bachelor of Literature.

Flora McCormick,	John McNutt, Jr.
Edgar William Morris,	Daniel C Morrissey,
Joseph Lawrence Parry,	Walter Busey Riley,
Gertrude Shawhan,	William C Tackett,
Leslie Alvord Weaver,	Fred John Weedman,
	Ola C. Woolsey.

The following named graduates of former classes have been recommended for the second degree designated:

William David Gibbs, B.S., class of 1893, Degree of Master of Science,  
 Clarence Albert Shamel, B.S., class of 1891, Degree of Master of Science.  
 Frank H. Eno, B.S., class of 1891, Degree of Civil Engineer.  
 Alfred E. Harvey, B.S., class of 1891, Degree of Civil Engineer.  
 George Perkins Clinton, B.S., class of 1890, Degree of Master of Science.  
 Bruce Fink, B.S., class of 1887, Degree of Master of Science.  
 Charles I. Hays, B.S., class of 1873, Degree of Master of Science.  
 Clendon Vanmeter Millar, B.S., class of 1893, Degree of Master of Science.  
 Joseph S. Terrill, B.S., class of 1891, Degree of Master of Science.  
 Helen E. Butterfield, B.L., class of 1891, Degree of Master of Literature.  
 Charles Willard Carter, B.L., class of 1893, Degree of Master of Literature.  
 Ella Connet, B.L., class of 1888, Degree of Master of Literature.  
 Herman S Piatt, A.B., class of 1893, Degree of Master of Arts.

Degree recommended for those graduating ten years or more ago with certificates.

Willis A. Reiss, class of 1872, Degree of Master of Science.  
 Lewis E. Williams, class of 1873, Degree of Master of Science.  
 Charles P. Jeffers, class of 1874, Degree of Master of Science.  
 Ralph Allen, class of 1876, Degree of Master of Science.  
 Elijah N. Porterfield, class of 1873, Degree of Civil Engineer

George Storey, class of 1874, Degree of Civil Engineer.

Howard Silver, class of 1872, Degree of Master of Literature.

Alonzo L. Whitcomb, class of 1872, Degree of Master of Literature.

Parley A. Phillips, class of 1873, Degree of Master of Literature.

Ebenezer L. Drewry, class of 1874, Degree of Master of Literature.

The faculty also recommends that a certificate of graduation be issued to Judson F. Going, of the class of 1883.

#### ENROLLMENT.

You will be pleased to learn that notwithstanding the serious difficulties in the way, the attendance of students for the year considerably surpasses that of any former year in the history of the University. You will remember that the increase last year was for us phenomenally great, but a comparison of the numbers of the last and the present years shows favorably for the latter.

Then the number in the graduating class was 65; now it is 68. The summaries, as given in the two catalogues, are as follows:

SUMMARY OF STUDENTS—1892-93 AND 1893-94.

	Graduate school.....	Resident graduates..	Senior.....	Juniors.....	Sophomores.....	Freshmen.....	Special.....	Total University.....	Preparatory.....	Total University and preparatory.....	Special agriculture..	Grand Total.....
1892-3 { men .....	2	4	60	72	100	166	17	421	166	587	23	610
{ women.....	2	1	7	8	13	30	15	74	30	104	....	104
Total .....	4	5	7	80	113	196	32	495	196	691	23	714
1893-4 { men .....	8	9	83	84	109	155	16	464	145	609	25	684
{ women.....	2	3	9	15	14	20	25	88	21	109	....	109
Total .....	10	12	92	99	123	175	41	552	169	718	25	743

This shows a grand total of 743 against 714 last year, an increase of 29; and of University students proper, of 552 against 495, an increase of 57. This last is 11.5 per cent. The preparatory has 30 and the freshman class 21 less than last year, showing that the increase is in the upper classes, which, to my mind, is the most encouraging feature of the comparison. So far as the freshman class is concerned, however, this comes about in part from differences in classification. Last year there were 9 post-graduate students; this year there are 22. Last year there were in the University courses, 74 women; this year there are 88, a gain of 19 per cent. This very satisfactory increase is no doubt in part a response to the better provisions made in recent years for women students, and ought to be encouraging for further efforts in the same direction. Altogether there were last year 104 women, this year there are 109.

By courses there are no very striking changes in the relative numbers of students for the last two years. The greatest actual increase is in electrical engineering, where the total numbers are 123 now, against 94 last year, a gain of 29, or about 31 per cent. In municipal and sanitary engineering there was but one student last year; and now there are 5. In Latin and Greek, the previous year, there were 36 students; this last year there have been 55, a gain of 19, or nearly 53 per cent.

## PROGRESS DURING THE YEAR.

A comparison of the catalogues for these two years will show very large additions to the courses of instruction; much larger in the aggregate than were ever before made in one year. Four new departments have been organized, viz., pedagogy, economics, philosophy, and physical culture for women. Sub-departments in mechanical, electrical, and civil engineering, in chemistry (pharmacy), and zoölogy (physiology) are important developments of the year, while the offerings in mathematics have been extended from 9 to 18 courses of instruction, and from two to four years' work. The graduate school has received special attention, as shown by a comparison of the announcements in the catalogues. There was but a single paragraph in the catalogue of 1892-93, while there are five pages in that of 1893-94.

Another step in advance, which promises well, but of which it is too early to speak further than to announce, is the organization of a summer school as a part of university instruction. A model school for the department of pedagogics has also been planned under your direction, and recommendations of teachers are to be presented to you.

The preparatory school has been reorganized and placed under the charge of a principal. It was also provided with separate quarters. The course now announced is for two years, instead of one as heretofore. This change is believed to be a very important one, but it introduces an element of much uncertainty in regard to the number and kind of teachers needed for the coming year. The principal thinks there should be six teachers besides himself, as follows: One for algebra, one for geometry and history, two for English, one for physiology, botany, and zoölogy, and one for Latin and Greek, leaving physics for himself. Further information upon this will be given, if desired, and names of candidates for teachers may be submitted.

The following communication is self-explanatory, and I take pleasure in presenting it to you.

URBANA, ILL., May 29, 1894.

*Dr. T. J. Burrill,*

DEAR SIR: I desire you to express to the board of trustees my heartfelt gratitude for the kindness it has shown to me and my fond hope to return to my work in a condition to do good work.

Very respectfully,

E. SNYDER.

Assistant Professor Myers asks a leave of absence of one year beginning September 1, 1894, in order that he may better qualify himself by study elsewhere for his duties at the University. It is his purpose to spend the year in the study of mathematics and astronomy at one of the eastern universities, or in Europe. This is commendable enterprise and laudable ambition, and it is well worth while for the University to suffer some inconvenience for the time being in the assurance of benefits to follow.

## MILITARY DEPARTMENT.

During his four years of effective service and helpful experience in the military department, Captain Hills has found some things which he thinks would, if adopted, benefit the department, and he has addressed to me the communication which is herewith submitted. His recommendations meet the approval of Professor Snyder, who, as the former commander of the battalion, and since an active member of the military committee of the faculty, is abundantly qualified to advise in the matter. It is exceedingly pleasant to inform you that as a token of their good will and high esteem the members of the battalion presented Captain Hills, at the Hazleton prize drill, with an elegant gold watch, suitably engraved. This fact in itself has little importance, but as an indication of the great change during the last few years in the attitude of the students toward military affairs, it does have deep significance.

UNIVERSITY OF ILLINOIS, May 23, 1894.

*Dr. T. J. Burrill, Acting Regent, University of Illinois,*

SIR: I have the honor to bring to your attention a few proposed changes in the rules which I regard as necessary to facilitate instruction and to promote the efficiency of the battalion.

The present practice is to appoint captains and lieutenants from the junior class. In no year have I been able to supply each company with a full complement of officers, viz., one captain, one first and one second lieutenant, because of the withdrawal from the military class of a number who had been sergeants the preceding term and the failure of others to return to the University. Lieutenants are necessary as assistants to the captain and to command platoons. Thus far I have been obliged to omit practical instruction in platoon movements, both in the schools of the company and the battalion.

There is serious objection to promoting to the grade of captain a sergeant who has not first served in the subordinate capacity of a lieutenant. It should be done in extreme cases only. Moreover, it seems but right that the services of instructed seniors should be utilized.

Again, the withdrawal of students from the junior military class at the opening of the college year is doubtless due, to a certain extent, to the dislike to serve under a classmate in a subordinate capacity. I have no doubt this feeling has led several to drop out in the past years.

I would therefore recommend for consideration the following proposed changes in the rules, viz:

That the students having had six terms of drills and of recitations be eligible for appointment as lieutenants; that those having had nine terms of drill and of recitations be eligible for appointment as majors and captains.

That scholarships of the money value of twenty-two and one-half dollars, payable at the close of the college year, be awarded to the lieutenants; that to those attaining the grades of major and captain be awarded scholarships of like value, payable at the same time, and, in addition, that they be paid twelve and one-half dollars per term. No recitations to be required of seniors.

I am of the opinion, also, that corporals should be appointed at the beginning of the winter instead of the spring term. One term is too short a period in which to fit them for the position for sergeants. The military professor should be authorized to select his corporals from the freshman class. Since the members of that class must serve two college years in the battalion, the officer in charge ought to be permitted to say in what capacity each individual can, in his judgment, render the most efficient service.

The present plan of forming the freshman military class from those who choose it voluntarily is often unsatisfactory; I had almost said, vicious. Certainly the best material is not always thus attained; and poor material, if offered, must be accepted. There is no alternative.

I am, sir, yours very respectfully,

E. R. HILLS,

*Captain 5th Artillery, Professor of Military Science and Tactics.*

I add also some extracts from the inspection of the military department, made May 18, 1894, by Colonel E. M. Heyl, Inspector General, U. S. A.

“URBANA, ILL., May 18, 1894.”

“*To the Inspector General, U. S. A., Washington. D. C.,*

SIR: I have the honor to submit the following report of an inspection of the military department of the University of Illinois, Urbana, Ill., made this day. \* \* \*

The military professor reports that the discipline of the cadets is fair and a decided improvement over the preceding year. Breaches of discipline are punished by reports, warnings, suspensions, and expulsion. \* \* \*

The following are reported to have shown special aptitude for the military service, viz:

H. E. Reeves, C. W. Noble, A. M. Munn, E. V. Capps, juniors; R. P. Brower, F. H. Green, H. R. Marsh, J. H. McKee, G. E. Rowe, R. K. Porter, G. H. Scott, sophomores. \* \* \*

Since date of last annual inspection, May 18, 1893, there have been 121 days upon which drills and ceremonies have taken place. There have been 69 infantry company drills, 61 artillery drills in formation of detachments, manual of the piece, and mechanical maneuvers; 35 battalion drills; 7 dress parades and 10 reviews and inspections; 5 signal drills with flag. Company inspections have been made from time to time as part of the drill.

There have been 8 aiming drills with cadet rifle. First the officers and non-commissioned officers, then each company in turn—the last being for those not present at either of the other drills. This instruction was not compulsory and was given to 120 cadets.

Gallery practice was held ten times from January 20th to May 5th. Each cadet was instructed in pointing, aiming, and the manner of holding his piece. 120 cadets participated in this practice.

Those who desired to go were taken on the range and had practice on April 28th (all day) at 100, 200, and 300 yards, also during the forenoon of May 12th. Thirty-six cadets attended April 28th, and 13 on May 12th. The practice has been very satisfactory considering the limited opportunity afforded for this work.

The drill ground is suitable for close order movements, but limited for extended order. Military Hall—100x150 feet—affords excellent facilities for indoor drill.

The target range is  $1\frac{1}{4}$  miles from Military Hall and admits of practice up to 400 yards. The butt is for one stationary target and should be made larger. Direction of firing is toward the south.

Theoretical instruction has been personally conducted by the military professor, with the exception that during fall and winter terms, owing to the size of the freshman class, Cadet Captain Reeves was employed by the University as an assistant instructor and heard three recitations per week. During the fall and winter terms five, and during the spring term four, hours per week are devoted to this instruction.

Since last annual inspection the three classes, juniors, sophomores, and freshmen, have had 94 recitations, but during the fall and winter terms the freshmen class was divided into six sections, thus occupying six hours (days) per week—making the whole number of recitations 204. The recitations were in infantry drill regulations, guard duty, notes on cannon and projectiles, organization of U. S. A., signaling, field fortifications, and art and science of war. The military professor delivered three lectures on army organization, courts martial, and military and martial law.

Infantry Drill Regulations, Manual of Guard Duty, Wheeler's Field Fortifications, and Wheeler's Art and Science of War are used as text books. The University library contains about 300 volumes on different military subjects.

Ordnance and ordnance stores consist of 300 cadet rifles, 300 sets of accoutrements, and 2 field guns—bronze, 6 pounds, with carriages and limbers. The rifles and accoutrements are in a good condition, stored in Military Hall, and cared for by the janitor (an old soldier). The field guns and carriages are in bad condition and should be replaced. The full allowance of ammunition has been drawn from the U. S. \* \* \*

I inspected and witnessed the drill of the battalion—six companies of infantry, one artillery detachment, and band. Appended hereto is a field return showing the strength present and absent, how absentees are accounted for, etc. All of the cadets present at inspection were in complete uniform.

Owing to a rain storm the exercises under arms were held in the drill hall, which was not large enough to admit of a review.

The command formed by battalion in column for inspection. The cadets presented a neat appearance and are well set up. The band has a very neat uniform and serviceable cap.

For drill the six companies were divided into two battalions of three companies each, the cadet captains drilling the battalions. The drill was excellent. All the captains showed a perfect knowledge of battalion movements, their commands were clear and distinct, and all movements were executed promptly, accurately, and in a very soldierly manner.

The drill of the artillery detachment in manual of the piece, loading and firing was well executed and showed a good knowledge of the drill. It is regretted that, owing to the storm and wet condition of the ground, the detachment was unable to give an exhibition in the mechanical maneuvers, dismounting piece, etc.

Great credit is due Captain Hills for the excellent state of proficiency to which he has brought the cadet battalion of this University. He labored under many great disadvantages when he first entered upon his duties, but by patient and persistent efforts, a great deal of tact and good judgment, he has succeeded in placing the military organization in an excellent condition."

I communicate herewith a petition from the leaders of the different athletic organizations, and commend it to your attention.

#### LIBRARY.

The report of Professor Moss, as librarian, is herewith submitted. The library matter has become a very serious problem, which, no doubt, can only be well solved by erecting a special building. But what to do while waiting for a new building is a puzzle. It may be thought that sufficient room will be easily spared in University Hall after the engineers move into their new quarters, but any attempt to distribute the rooms among the remaining departments will quickly show that the room in University Hall will be more than demanded. It seems absolutely impossible to find any place for the proposed model school until Engineering Hall furnishes relief, and, as it is not certain that this building will be ready in any part for occupancy at the beginning of the next school year, it is difficult to see what can be done for the new school. Much, too, has been said about needing a musical department, but there will be no spare room for this, even in a small way, after the engineers all leave University Hall. With things as now arranged for the next year, there will not be a room in this building unoccupied. On the contrary, double occupancy will be necessary in some cases. Special attention is required to assignments for the preparatory school. The regent's office, perhaps before any other needs are considered, requires enlargement and adjustment.

*To the Board of Trustees.*

GENTLEMEN: The work connected with the library has progressed with very little friction during the year, though several difficulties have stood in the way. The labors of Mr. Cleaves Bennett have been well and faithfully done. Upon him has fallen the major share of the routine work, and it has taken all his time from morning till night throughout the year. The assistants also have done their work acceptably.

The difficulties mentioned are, first, the well-nigh total absence of such facilities for office work as the librarian's duty demands. One old, small desk was all the office contained until recently, when a letter-press

was ordered. It is quite impossible to keep in orderly shape the endless details of correspondence, etc., unless an office is fitted up suitably for a librarian's use. The present room is a store room for the library and business agent and registrar, and in it all our work has to be done. The board should set apart a room and fit it up in shape for the business of the library.

A second matter that needs attention, particularly if a librarian is employed who is skilled in his work, is that some discretion, at the direction of the library committee, should be given regarding the purchase of books. Notices are from time to time received of valuable works offered at low cost, and the present method is too roundabout to make such offers available. The librarian also should be at liberty to purchase needful supplies for his work.

The report of the business agent will show that of the \$5,000.00 appropriated for the library, \$1,000.00 was set aside for periodicals and binding. From this sum 156 periodicals were ordered, of which almost none are of a general, rather than a technical character. The binding for the six months of 1894 will well-nigh exhaust the amount available for this item. The \$4,000.00 remaining has been actually spent, or orders are now out that will cover it.

The total number of books added to the library between March 1, 1893, when the last record was made for the catalogue of that year, and May 30, 1894, is 2,452. This does not include pamphlets, of which several hundred have been placed on file.

I am pleased to say that the increase in calls for books during the year has exceeded that of any previous year, reaching, so far as we can estimate, about 40 per cent. This is convincing testimony to a wider scope of instruction, and to a better appreciation, on the part of the students, of their privilege in this respect. The increase is fairly distributed among the various departments.

It became apparent to me soon after assuming the duties of librarian, last fall, that I could do nothing more than a perfunctory service. The library, as I conceived, was not so well arranged as it might be; but nothing could be done because of the limited room at disposal, particularly as new purchases were crowding us more and more. But the fact that the books were not catalogued except by titles, made a rational placing of them absolutely impossible. It remains, therefore, that no professor, much less a student, can know what material is at his service, unless he has gone over the entire library, volume by volume—a tedious and time-wasting labor, as I know from having done it in behalf of my department. The time has come, indeed it came long since, when a systematic cataloguing of the books by topics is indispensable. Further, no one can appreciate how needful this is, unless he has heard the repeated inquiry, "Where can I find this or that subject treated?" The reply depends chiefly upon what a mere student assistant happens to know about the library.

The attention needful to the office work I could give only at odd times when not engaged in any regular duties, and any systematizing of it was not possible on this account, as well as for a lack of conveniences therefor.

The above two, and other considerations of importance, in my judgment, make it imperative that a trained librarian should be employed, and that cataloguers should be placed at his direction.

There are various and radical differences of opinion upon the arrangement of this, as of other libraries. The library committee may be trusted to do its full duty intelligently, but much care should be taken to select a man who can work harmoniously with them.

The urgent need for more room is apparent. The incongruity of having 100 or more students studying, conversing, and reading in the same room is also apparent. It has been impossible to preserve quiet in the room, and unadvisable to attempt it. Our shelves are full, and we have



been obliged to store almost 500 volumes of less-needed, though important, books, to make room for others. I certainly do not know what can be done with those to arrive this summer unless more shelf room is provided. *We need, and need now*, a new, modern building, with all appliances for this vital part of our University work. Upon this probably every member of the faculty is agreed, and that it is our foremost need in the way of buildings.

The plan adopted recently for the purchase of books has given satisfaction, and often makes the appropriation available for immediate needs.

The board gave me the librarian's duty to perform, without my knowledge, till I was actually appointed. I have cared for it as faithfully as I could, but I do not feel that I can continue the work for another year, and accordingly ask to be relieved therefrom. I shall take pleasure in seeing that matters are attended to till July 1st, when I expect to leave home.

Respectfully,

C. M. Moss.

I have said that there will be no room available for the development of a musical department even if the room we have should be considered suitable for the purpose. It has been publicly understood that Miss Kimball has resigned her place and this, together with the expressed desire that more should be offered in the way of musical instruction, has induced numerous persons to make application for positions. These applications are on file, but no answer has been returned further than to acknowledge, if by mail, the receipt of the papers. I submit, however, a proposition from Mr. Squire, who is very sanguine that the conditions are favorable for beginning the work. His plan is practically that existing in the University of Michigan, of which we have very satisfactory reports. While it does not appear to me that the University should assume the responsible management of a musical conservatory in any case, it does seem to me to be very important that instruction should be offered in musical theory and history to classes, as in other subjects, and that students should have abundant opportunity to take private lessons of the best grade, in the various musical subjects. In the endeavor to render the University and the place attractive to women students, musical instruction and the kind of educational culture connected therewith, must have prominent consideration. Whether the present proposition is a desirable one or not, something of the kind meets my own very hearty approval and I earnestly invite your best consideration of the subject.

#### GYMNASIUM FOR WOMEN.

Somewhat connected with this in idea is a communication from the alumnae association of the University, which I take pleasure in presenting, as follows:

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

**GENTLEMEN:** The alumnae association of the University desires to call your attention to that part of Dr. T. J. Burrill's address of recent issue which refers to the small percentage of women students here in attendance and to second his recommendations for them.

This association has among its members alumnae who have been separated from their University course long enough to realize most fully the advantages which the University should offer to women.

We feel that our obligations to our Alma Mater and its obligations to the young women of Illinois make it our privilege to request that the board of trustees provide additional facilities for its women students.

We urge, especially, the gymnasium for women and request that the efficient and unselfish work of Miss Kellogg during the past year be encouraged by a requisite allowance of rooms and funds.

Not until the daughters of Illinois are enabled to enjoy in our own University all the advantages offered by other institutions will the full

measure of its power and influence be felt and its just proportion of women students be secured.

Respectfully submitted,

MRS. VIRGINIA TALBOT,

*Corresponding Secretary.*

MRS. F. A. PARSONS,

*President.*

#### FELLOWS.

The executive committee of the faculty recommends to you the following named persons as fellows for the year 1894-5:

For the College of Engineering—Robert Alvin Wood (mechanical engineering), Grant Clark Miller (architecture).

For the College of Science—Charles Frederick Hottes.

For the College of Literature—Miss Ola C Woolsey.

According to your provision four fellows may be appointed each year, with the understanding that one shall be assigned to each college. It has so happened that no fellowship has heretofore been filled from the college of engineering, but last year the college of agriculture was thus represented. Since the number of students in the various courses of the college of engineering greatly exceeds those in the other colleges, and especially those in agriculture, the committee ventures to ask that two of the fellowships for the coming year be assigned to the college of engineering, as above proposed.

#### ADDITIONAL INSTRUCTORS.

There are several calls for increase or readjustment of teaching force. The needs in this respect of the departments of mechanical and electrical engineering, presented to you from the heads of these departments at your last meeting, are now in the hands of your committee on instruction. I submit suggestions from the professor of architecture for the conduct of his department during the absence of Professor White. In case leave of absence is granted to Professor Myers, his place must be temporarily filled. The work now assigned to Professor Rolfe makes it necessary that some assistance should be furnished in his department, and further assistance in the chemical department is required. The transfer of the work in themes from the junior to the sophomore year in the engineering courses will very largely increase this work next year. Another instructor in this subject for one year is very essential. I submit, also, a communication from Professor Bruner for further help in his department.

Professor McMurry desires the appointment of Miss Kate Cary and Miss Mary Karr as teachers in the model school. The question of the appointment of a librarian has already been before you, and I need only emphasize the importance of securing a thoroughly competent officer for the place.

#### APPROPRIATIONS.

□ Professor Forbes as director of the State Laboratory of Natural History, requests an assignment of the balance of the account in the treasurer's hands for the Laboratory.

I communicate herewith from the several departments a list of askings for money, and have for your information full details in each case.

#### AGRICULTURAL EXPERIMENT STATION.

The quarterly report of the president of the board of direction of the Agricultural Experiment Station is as follows:

*Dr. T. J. Burrill, Regent,*

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

*Paper A* is a statement of the expenditures for the quarter ending March 31, 1894.

*Paper B* is a list of warrants drawn during the same quarter, No. 134 to 230, inclusive, and is accompanied with vouchers for the same.

*Paper C* is a statement of the appropriations, expenditures, and balances for the quarter ending June 30, 1894.

*Paper D* is a statement of appropriations asked for the current and the next quarters.

PAPER A.—APPROPRIATIONS, EXPENDITURES AND BALANCES FOR QUARTER ENDING MARCH 31, 1894.

	Appropriated.	Expended.	Balances.
Buildings and repairs.....	\$25 00	.....	\$25 00
Board expense.....	40 00	\$37 46	2 54
Books and publications.....	50 00	50 56	19 44
Botanical apparatus.....	10 00	3 46	6 54
Bulletins.....	850 00	865 43	.....
Chemical apparatus.....	50 00	48 01	1 99
Fuel and lights.....	100 00	56 00	44 00
Incidentals.....	25 00	2 00	23 00
Meteorological apparatus.....	10 00	7 67	2 33
Printing, stationery, and postage.....	25 00	15 75	9 25
Salaries.....	2,305 00	2,034 96	04
Seeds and trees.....	100 00	52 81	47 19
Tools and supplies.....	250 00	250 47	.....
Wages.....	1,025 00	1,005 97	19 03
<i>Sundry Experiments—</i>			
Farmers' Institutes.....	55 00	51 07	3 93
Dairy experiments.....	150 00	32 15	117 85
Drainage experiments.....	200 00	14 50	185 50
Wheat and other experiments.....	50 00	.....	50 00
Total.....	\$5,050 00	\$4,508 27	\$557 63

PAPER C.—APPROPRIATIONS, EXPENDITURES, AND BALANCES FOR QUARTER ENDING JUNE 30, 1894.

	Appropriated.	Expended.	Balances.
Buildings and repairs.....	\$25 00	.....	\$25 00
Board expense.....	40 00	\$15 06	24 94
Books and publications.....	75 00	7 16	67 84
Botanical apparatus.....	10 00	.....	10 00
Bulletins.....	300 00	115 41	184 59
Chemical apparatus.....	50 00	4 44	45 56
Fertilizers.....	.....	7 10	.....
Fuel and lights.....	100 00	.....	100 00
Incidentals.....	25 00	.....	25 00
Printing, stationery, and postage.....	25 00	10 00	15 00
Salaries.....	1,785 00	1,206 64	578 36
Seeds and trees.....	20 00	33 55	.....
Tools and supplies.....	175 00	.....	175 00
Wages.....	1,130 00	519 44	610 56
<i>Sundry Experiments—</i>			
Dairying experiments.....	50 00	.....	50 00
Drainage experiments.....	200 00	1 80	198 20
Wheat and forage experiments.....	50 00	10 50	39 50
Total.....	\$4,060 00	\$1,931 10	\$2,149 55

## PAPER D—ESTIMATES.

<i>Quarter Ending June 20, 1894—General Fund.</i>	
Membership fee in Association of American Agricultural Colleges and Experiment Stations .....	\$15 00
Expenses of delegate to Dairy Convention .....	10 16
Total .....	\$25 16
<i>Quarter Ending Sept. 30, 1894—General Fund.</i>	
Buildings and repairs .....	25 00
Board expense .....	50 00
Books and publications .....	50 00
Botanical apparatus .....	10 00
Bulletins .....	200 00
Chemical apparatus .....	50 00
Fuel and lights .....	60 00
Incidentals .....	25 00
Printing, stationery, and postage .....	25 00
Salaries .....	2,060 00
Seeds and trees .....	10 00
Tools and supplies .....	270 00
Wages .....	1,100 00
Sundry—	
Wheat and forage experiments .....	100 00
Total .....	\$4,035 00
<i>From Station Farm Fund.</i>	
For purchase of pigs .....	100 00
For repairs on farm dwelling house .....	75 00
Total .....	\$175 00

The board of direction asks that the trustees appropriate funds according to the estimates in paper D for the use of the Station.

The board of direction asks that its president and secretary have authority to use, for such purposes as may best subserve the interests of the Station, any unexpended balances of the station funds appropriated for this fiscal year.

It is probable that not all the sum appropriated in March from the station farm fund for the purchase of stock and fittings for the dairy will be expended by the end of the quarter, and the board of direction asks that the balance, if any, be reappropriated for the same purpose.

Respectfully submitted,

G. E. MORROW,

*President Board of Direction.*

It is desirable that appropriations should be made for the Experiment Station as requested in the foregoing report.

Respectfully submitted,

T. J. BURRILL,

*Acting Regent.*

The board of supervisors of Champaign county was invited to attend commencement.

The board adjourned to meet at 7:30 o'clock p. m.

### EVENING SESSION.

The same members were present as in the morning.

After discussion of some university matters the board adjourned to meet at 8 o'clock a. m. Wednesday.



The Business Agent's report was received:

UNIVERSITY OF ILLINOIS, June 5, 1894.

*Nelson W. Graham, Esq., President of Board of Trustees, University of Illinois.*

SIR:—I have the honor to hand you herewith the following financial statements:

Paper A, the current appropriations for the three months ending June 1, 1894.

Paper B, a showing of the state appropriations, June 1, 1894.

Paper C, the same for the United States fund.

Paper D, a list of vouchers presented for audit, being from 576 to 1,175, inclusive.

Paper E, estimates of expenses and receipts for the three months ending September 1, 1894.

Paper F, estimates for the twelve months ending September 1, 1895.

Paper G, appropriations asked for the three months ending September 1, 1894.

Paper H, a bill from C. W. Spalding, treasurer, for money paid on account of taxes.

PAPER A—CURRENT APPROPRIATIONS.

March 13 and April 13, 1894.	Appropriated.	Receipts appropriated.	Expended.	Balance.
Board expenses.....	\$600 00		\$373 35	\$226 65
Salaries for instruction { Current.....	20,000 00		5,937 23	562 77
{ State.....			13,500 00	
Salaries for services.....	2,175 00		2,146 18	28 82
Buildings and grounds.....	600 00	\$10 00	257 46	352 54
Fuel and lights.....	1,000 00	32 00	616 01	415 99
Stationery, printing, and catalogue.....	1,000 00		294 31	705 69
Preparatory school.....		1,057 00	838 25	218 75
Mechanical department.....	200 00	594 77	789 27	5 50
Architectural.....	100 00	640 26	529 68	210 58
Agricultural.....		443 45	111 58	331 87
Horticultural.....		82 30	37 93	44 37
Military.....	47 00		45 16	1 84
Laboratories.....	200 00	306 96	494 81	12 15
Library and apparatus.....	50 00		18 69	31 31
Incidentals.....	200 00		128 01	71 99
Sundries—				
Water supply.....	125 00		125 00	
Furniture and fixtures.....	100 00		70 35	29 65
Heating.....	100 00		44 58	55 42
Accredited schools.....	144 87		113 78	31 09
Band music.....	7 90			7 90
Illini subscriptions.....	321 33		321 33	
Gymnasium.....	56 33		1 50	54 83
Art department.....	16 97		16 74	23
Music and piano.....	48 00		15 00	33 00
World's Fair exhibit.....	250 00		246 63	3 37
Technograph.....	100 00		40 53	59 47
Typewriter.....	120 00		120 00	
Farm house.....	208 40		172 22	36 18
Interest on bonds.....	20 00		20 00	
Summer school.....	1,200 00		74 50	1,125 50
Land purchase.....	4,500 00		4,500 00	

## PAPER B—STATE APPROPRIATIONS.

May 31, 1894.	Received.	Expended.	Balance.	Assigned.
Before reported on .....	\$9,014 64	\$9,014 64	.....	.....
Cabinets .....	1,000 00	776 18	\$223 82	\$223 82
Furnishing and heating Natural History Hall .....	6,000 00	4,980 86	1,019 14	1,019 14
Boiler and coal house .....	6,500 00	.....	6,500 00	.....
Engineering building .....	80,000 00	61,106 17	18,893 83	18,893 83
Municipal engineering .....	50 00	7 00	43 00	43 00
Greek .....	100 00	53 34	46 66	46 66
Psychology .....	800 00	701 07	98 93	98 93
Botany .....	200 00	129 77	70 23	70 23
Library .....	5,000 00	2,509 93	2,490 07	2,490 07
Physiology .....	100 00	77 86	22 14	22 14
Architectural cabinet .....	175 00	109 90	65 10	65 10
Physical culture .....	210 00	145 72	64 28	64 28
College of literature .....	200 00	139 41	60 59	60 59
Buildings and grounds .....	3,852 69	3,848 82	3 87	3 87
Mechanical engineering .....	100 00	100 00	.....	.....
Shop practice classes .....	600 00	600 00	.....	.....
Salaries for instruction .....	40,979 46	40,979 46	.....	.....
Total .....	\$154,881 79	\$125,274 13	\$29,607 66	\$23,107 66
Illinois State Laboratory of Natural History .....	\$8,563 26	\$6,455 15	\$2,108 11	\$72 46

## PAPER C—UNITED STATES FUND.

	Received.	Expended.	Balance.	Assigned.
<i>Year Ending June 30, 1893.</i>				
Before reported on .....	\$17,663 09	\$17,663 09	.....	.....
Agricultural lectures .....	250 00	153 55	\$96 45	\$96 45
Veterinary department .....	86 91	72 93	13 98	13 98
Total .....	\$18,000 00	\$17,889 57	\$110 43	\$110 43
<i>Year Ending June 30, 1894.</i>				
Before reported on .....	\$9,969 90	\$9,969 90	.....	.....
Testing laboratory .....	1,700 00	1,423 22	\$276 78	\$276 78
Geology .....	300 00	84 51	215 49	215 49
Zoölogy .....	1,000 00	994 69	5 31	5 31
Chemistry .....	490 00	490 00	.....	.....
Civil engineering .....	950 00	945 73	4 27	4 27
Mechanical engineering .....	3,093 13	3,038 03	55 10	55 10
Municipal engineering .....	700 00	700 00	.....	.....
Electrical engineering .....	296 97	296 97	.....	.....
Architecture .....	530 00	341 78	158 22	158 22
Total .....	\$19,000 00	\$18,284 83	\$715 17	\$715 17

As the bills under the assignments from the state appropriations of the present year are not likely to be in hand to cover the \$60,000.00 for which vouchers should be filed June 30th, the board is requested to give the authority for the payment at once of so much of the \$4,000.00 assigned to the electric engineering as will furnish vouchers for the balance of the \$60,000.00.

Respectfully submitted,

S. W. SHATTUCK,

*Business Agent.*

But one member of the buildings and grounds committee was present. The following communication was received from him:

#### ENGINEERING HALL.

URBANA, ILL., June 6, 1894.

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

GENTLEMEN: The chairman of your committee on buildings and grounds reports that the work on the new building is proceeding in a satisfactory manner, with the exception of the rapidity with which the work is conducted. The work is going on slowly, and the contractors have asked for a delay in the completion of the building on account of the present coal strike. A quorum of the committee has not been present at this meeting, and no action has been taken with regard to the request.

The committee called for bids for heating apparatus for the new building, and five have been received. Professor Breckinridge, of the mechanical engineering department, has been asked to examine the proposals and report to the committee in a few days his opinion as to which is most acceptable.

We recommend that the letting of contracts for heating, for electric wiring, for furniture, for boilers and boiler houses and for other work on the new building be referred to the committee on buildings and grounds, with power to act.

We recommend that \$1,200.00 be paid on account to the architect and superintendent.

Respectfully submitted,

S. A. BULLARD,

*Chairman of Committee on Buildings and Grounds.*

The committee on cadet uniforms made the following report:

#### CADET UNIFORMS.

*To the Board of Trustees, University of Illinois.*

GENTLEMEN: Your committee, appointed March 13th upon military uniforms for students, begs leave to report that after securing bids by open competition, and after careful examination and full deliberation, it has awarded the contract to the firm of Schweizer & Woody, of Champaign, Ill., on the following terms:

1. The uniforms are to conform to the specifications adopted at your meeting of March 13, 1894.

2. The coat and trousers for privates and non-commissioned officers are to be of "West Point cadet gray, government standard." The coat for commissioned officers is to be of "Condor" and trousers for same of "Lunar" brands, all of Middlesex mills, and all in every particular like samples deposited for the purpose with the business agent of the University.

3. The caps for privates and officers are to be like the sample for each deposited with the business agent of the University.

4. The chevrons are to be of gold lace.

5. The uniform, consisting of coat and trousers, cut to measure, and cap as described for privates and non-commissioned officers, is to be furnished students at sixteen and 40-100 dollars each uniform: that for officers same, complete as described, for nineteen and 65-100 dollars.

6. A committee of the faculty of the University, consisting of three persons selected for the purpose by that body, is to be the judge of the quality of material, workmanship and fit of garments, and the decisions of this committee are to be binding upon said firm of Schweizer & Woody in these respects.

7. Said firm of Schweizer & Woody are to file with the business agent



of the University a bond in the sum of two thousand (2,000) dollars for the faithful performance of their part of this contract.

Respectfully submitted by the committee.

T. J. BURRILL, *Acting Regent.*

N. W. GRAHAM, }  
N. B. MORRISON, } *Executive Committee.*  
S. A. BULLARD, }

The board adjourned to meet in the University parlor, Urbana, at 3 o'clock p. m., July 2, 1894.

W. L. PILLSBURY,  
*Secretary.*

N. W. GRAHAM,  
*President.*

MEETING OF THE EXECUTIVE COMMITTEE.

The executive committee of the Board of Trustees of the University of Illinois met in the University Parlor at Urbana, Illinois, Tuesday afternoon, June 5, 1894. There were present Messrs. Graham and Bullard; absent, Mr. Morrison. Authority was given to confer degrees and a certificate according to the recommendation of the faculty, as contained in the regent's report. (See page 243.)

The several requests for appropriations presented by the regent from the Agricultural Experiment Station were granted.

Complying with the request by Professor Forbes, the following persons were appointed on the staff of the State Laboratory of Natural History, for the year beginning July 1, 1894:

W. G. Johnson, assistant entomologist.....	\$1,200 00
Frank Smith, assistant zoölogist.....	200 00
Mary J. Snyder, stenographer.....	750 00
H. C. Forbes, librarian.....	1,000 00

Of the funds of the State Laboratory of Natural History, assignments were made as follows:

For publication of zoölogical reports.....	\$2,035 65
For field work, office and incidental expenses.....	375 00
For improvement of library.....	1,000 00
For salaries and assistance.....	875 00
For publication of bulletins.....	500 00
For illustration of state entomologist's report.....	250 00
Total.....	\$5,035 65

The committee adjourned to meet Wednesday afternoon.

SESSION OF WEDNESDAY AFTERNOON.

The business agent was directed to make a contract with Schweizer & Woody according to the terms of the report of the committee on cadet uniforms, on page 258.

A communication with regard to the suspension of George Frederickson was referred to a committee consisting of Messrs. Bullard and Armstrong.

Upon recommendation of the committee on finance appropriations were made as follows:

<i>From current funds—</i>		
For repairs of steam heating plant.....		\$577 00
For fixtures and material in drawing rooms.....		118 00
For membership fee in Association of American Agricultural Colleges and Experiment Stations.....		15 00
<i>From State funds—</i>		
For mechanical engineering department—repairs in shops and laboratory..	\$500 00	
Equipment in laboratory.....	1,000 00	
Further equipment, available after September 1, 1894.....	2,500 00	4,000 00
For electrical department—light and power lines.....	300 00	
Board partition and cabinet.....	100 00	
Additional equipment.....	1,000 00	
Call bell system.....	150 00	1,550 00
For civil engineering department—meridian marks.....	12 00	
Material and apparatus for masonry laboratory.....	171 00	
Blue prints of railroad structure, etc.....	50 00	233 00
For applied mechanics—laboratory apparatus and new testing machine....	422 00	
Drawings, etc., sanitary works.....	50 00	472 00
For architectural department.....		325 00
For botanical department—physiological apparatus.....		200 00
For zoölogical department.....		1,200 00
For geological department.....		500 00
For chemical department—ventilation of rooms.....	700 00	
Pharmacy desk and prescription.....	350 00	1,050 00
For psychological department.....		200 00

From current funds \$180 was appropriated for payment of military scholarships for the past year.

A communication received from the Urbana and Champaign Electric Railway Co. was referred to the committee on buildings and ground.

Upon recommendation of the committee on instruction, Professor Frederick's salary was made \$1,900 per annum; Professor Parr's, \$2,000, Professor Shea's, \$2,000; Professor Kinley's, \$1,900; Assistant Professor Vandervoort's, \$1,550; Assistant Professor Townsend's, \$1,500; Assistant Professor Pence's, \$1,250. These changes taking effect September 1, 1894.

It was ordered that Assistant Professor Summer's salary of \$1,500 per annum, should be paid wholly from University funds from July 1, 1894.

Mr. G. W. Parker was appointed instructor in wood working and foreman in the architectural shops at a salary of \$1,380 per annum; Mr. E. G. Howe, principal of preparatory school, at a salary of \$1,800 per annum.

The following are appointed for ten months from September 1, 1894:

Miss Edith A. Shattuck, assistant in drawing, at a salary of \$750; Mr. T. A. Clark, instructor in English, at a salary of \$1,100; Mr. C. D. McLane, instructor in architecture, at a salary of \$1,050; Mr. Cyril B. Clark, foreman of mechanical engineering machine shops, at a salary of \$750; Mr. W. E. Sandford, instructor in pharmacy, at a salary of \$800; Miss Alice M. Barber, assistant in botany, at a salary of \$650; Herman S. Piatt, instructor in Romance languages, at a salary of \$850; Mr. Hervey E. Parker, assistant in architectural shops, at a salary of \$300 for half time; Mr. James D. Phillips, instructor in general engineering drawing, at a salary of \$800; Mr. Charles A. Gunn, assistant in architecture, at a salary of \$750; Mr. Alfred H. White, assistant in chemistry, at a salary of \$750; Mr. Wm. Esty, instructor in electrical engineering, at a salary of \$1,000; Miss Anita M. Kellogg, director of physical culture for women, and instructor in elocution, at a salary of \$1,100; Mr. Arthur H. Daniels, instructor in philosophy, at a salary of \$1,050; Mr. Bernard V. Swenson, instructor in electrical engineering, at a salary of \$850; Mr. Nathan A. Weston, assistant in preparatory school, at a salary of \$800; Mr. Albert R. Curtiss, foreman of mechanical engineering wood shop, at a salary of \$750; Mr. Frank Smith, instructor in zoölogy, at a salary of \$1,000; Mr. Lorin Peabody, assistant in testing laboratory, at a salary of \$700.

Mr. Peter Mogensen, B.S., was appointed assistant in mathematics at a salary of \$750 for ten months. Miss Helen E. Butterfield was appointed assistant in English in the preparatory school at a salary of \$600 for ten months. Authority was given for the appointment of two more fellows, making six in all; and the appointment of these six, together with the appointment of such additional instructors as may be needed, was referred to the regent and the committee on instruction with power to act.

The appropriations asked for by the business agent were made as follows:

Board expenses.....	\$500 00
Salaries for instruction.....	15,500 00
Salary for regent.....	883 33
Salaries for services.....	1,650 00
Buildings and grounds.....	1,000 00
Fuel and lights.....	1,500 00
Stationery, printing, and catalogue.....	1,200 00
Laboratories.....	500 00
Library and apparatus.....	50 00
Military department.....	50 00
Mechanical, architectural, agricultural, and horticultural departments.....	400 00
Incidentals.....	200 00
Water supply.....	125 00
Furniture and fixtures.....	200 00
Heating apparatus.....	200 00
Commencement, balance.....	200 00
Biological station, balance.....	1,800 00
Summer school, balance.....	1,125 00
Accredited schools, balance.....	31 09
Music and piano, balance.....	33 00
<i>Technograph</i> , balance.....	59 47
Farm house, balance.....	36 18
World's Fair.....	110 79
Minnesota lands.....	100 00
Total.....	\$27,454 36
Taxes on Minnesota lands.....	1,548 65

The matter of letting contracts for heating, for electrical wiring, for furniture, for boilers and boiler houses, and for other work in the new building, was referred to the committee on buildings and grounds with power to act. According to the recommendation of Mr. Bullard, chairman of that committee, \$1,200 was appropriated to be paid to the architect and superintendent on account.

Two hundred and thirty-five dollars were appropriated from current funds for the purchase of the piano which has been used for the past year in the music room.

Assistant Professor George W. Myers was given leave of absence for a year from September 1, 1894.

The committee adjourned.

W. L. PILLSBURY,

*Secretary.*

N. W. GRAHAM,

*President.*

## MEETING OF AUGUST 1, 1894.

A special meeting of the Board of Trustees of the University of Illinois was held in the University parlor, in Urbana, at 3 o'clock p. m., Wednesday, August 1, 1894.

The meeting of June 5, 1894, was adjourned to July 2, 1894; but it being apparent a few days before the date for the meeting that, on account of the prevailing railroad strike, it would be impossible for the meeting to be held, the president of the board notified the members of the board that there would be no meeting. A call for a special meeting to be held July 9, 1894, was issued by the president, but it was again found impracticable for the board to come together. July 23d, a call for this meeting was issued by the secretary, as follows:

URBANA, ILL., July 23, 1894.

By order of the president, Mr. N. W. Graham, there will be a meeting of the Board of Trustees of the University of Illinois, at 3 o'clock p. m., Wednesday, August 1, in the University parlor, in Urbana, to consider unfinished business, and such other business as may be duly presented.

Members present were Governor Altgeld, and Messrs. Armstrong, Bullard, Graham, McLean, Morrison, Raab, and Raymond; those absent were Messrs. Bryant, Gore, McKay, and Morgan.

The minutes of the meetings of the board held March 13, and April 13, 1894, were approved, as presented by the secretary.

The action of the executive committee of the board at its meeting held June 5 and 6, 1894, as recorded on pages 260 to 262, inclusive, of the printed minutes of the last meeting, was confirmed.

Mr. Schultz, of the firm of Yeager & Schultz, contractors for the erection of Engineering Hall, being present by invitation, was told that the interests of the University demanded that the building be completed ready for use September 1st, next, according to the terms of the contract, and was strongly urged to spare no pains in fulfilling his contract.

Mr. Graham, of the committee appointed to notify Dr. A. S. Draper of his election to the regency of the University, reported that Dr. Draper had accepted the election, and was present to enter upon his duties. Dr. Draper's letter of acceptance was as follows:

CLEVELAND, OHIO, May 10, 1894.

*The Honorable Nelson W. Graham, Chairman Board of Trustees, University of Illinois, Carbondale, Illinois,*

MY DEAR SIR: Since the morning of April 14th last, when the committee of your board, accompanied by nearly all of the other members, called and notified me that by the unanimous and hearty action of the board, and at the unanimously expressed desire of the members of the faculty, I had been elected to the presidency of the University of Illinois, and asked my acceptance of that responsible position, I have endeavored to give the matter such serious thought as its great importance demanded.

One must indeed hesitate about assuming a trust involving so much of consequence to the educational interests of the imperial State of Illinois, as well as so much of consequence to himself, and must refrain from such a step unless his mind can gain confidence that all the interests involved will be promoted by taking it.

My limitations in training and my total inexperience in administering the affairs of a university have combined to arouse serious apprehensions in my mind as to the wisdom of your choice. I should have had no warrant for seriously thinking of such a matter, but for the reflection that your board must have felt its responsibility in the premises, has had full time to learn of my personal characteristics, as well as of whatever work I have performed, and of such standing as I have attained in the educational affairs of the country, and must have given the fullest consideration to the question of my fitness for the exalted position to which you have called me, and but for the fact that you assure me that your action is approved by the deliberate and mature opinion of each member of your board. In view of all this I have felt justified in deferring to your judgment touching that phase of the subject.

Passing from this point I have endeavored to decide whether the future possibilities of the University are sufficiently promising to justify me in spending the next ensuing years of my life in its service.

There is every reason for thinking that the state universities are going to occupy positions of superior prominence among the universities of the country, and it is impossible to discern any reason which can content the commonwealth of Illinois in giving only such support to a state university as involves its holding a place of secondary standing and influence among the universities of the land.

To enable a university to advance to a leading position, it must have financial aid to an extent which would have surprised the last generation, for the field of university operations has broadened as the activities of the people have multiplied and become more intense; it must have adequate accommodations and liberal equipment; its departments must be able to supply life-giving instruction in all branches of liberal learning; its work must attract attention, it must be authoritative and command respect, it must show anxiety and ability to stimulate the common life of the people, and bring renown to the good name of the state. Liberal moneyed support will not avail, unless there is also harmony and strength in the managing board of the faculty, as well as confidence and co-operation between them, and unless the local situation is attractive and uplifting, near which an increasing number of students can find healthful and happy homes at moderate cost. The whole must be enveloped in an air of contentment, of energy, of exalted culture, of stability and reserve power.

The buildings and equipment provided and the work already done to develop a state university in Illinois are gratifying and assuring. These, with the awakened interest of the people, and the disposition of their representatives in the legislature, as it has been portrayed to me, with the known resources of the state, and with the apparent oneness of feeling on the part of all who are bearing the responsibility of management, give excellent promise for the future of the University.

With these opportunities comes the question of future policy, for the functions of a state university in the United States have not yet been well determined. My view is that it is important to establish the fact that a state university is the appropriate head of the state school system and should live in vital and healthful relations with all of the public educational work of the state. It should build for classical culture, without which no people can advance, but it should not spend too much time in clearing up the involved subtleties of the dead past or of fathoming the depths of purely philosophical speculation. I would not have it thought that I am indifferent to these important lines of research, but rather that a choice of policies must be made or little will be accomplished in any direction, and that public moneys should go into lines of

educational work which most directly affect the life of the people. It does not seem to me advisable that a state university should be encumbered with the management of industrial enterprises, except so far as the same may be essential to educational ends, but rather that it should continually engage in scientific research and experimentation to the end that it may disseminate the latest scientific information upon the employment of the people. Complete preparation in the secondary schools must be exacted in order that the tone of its scholarship shall not suffer, and to make sure that its operations shall not be clogged by the presence of unprepared material. Aside from this it should extend a welcome and give greeting to both sexes and all classes, and it should train for manly and womanly character, for intellectual power and versatility, and for influence upon and success in the practical affairs of life.

I am informed that you sought me out and have tendered me the great honor of the presidency of your University, because you desired an administrative officer who had had some experience in organizing and articulating public educational work, and because I had to some extent become representative of the views and tendencies I have just indicated. Upon this basis acceptance is possible if I can make myself feel equal to the responsibility which is involved.

The uninterrupted tenure of office, immunity from the demoralizing influences of recurring political contests and from the exigencies and demands of partisan politics; your assurance of support in the selection of instructors, as well as your assurance of support to the faculty in all matters touching the internal organization and operations on the instruction side of the University administration, and the entire liberty of personal movements which you accord to me so long as the University prospers and reaches forward to the attainment of its ideals, afford a broad opportunity for marked success and for the credit and honor which accompany success in great enterprises, or for conspicuous and lamentable failure. These things lend attractiveness to the exalted position and would challenge the best and highest efforts of the most ambitious.

A sufficient time has elapsed since the announcement of your action to develop any criticisms or antagonisms of any kind. If there have been any, I have not heard of them. On the contrary, the expression of opinion in the secular and educational press has been all that could be desired, and the numerous communications which have come to me from the educational leaders of Illinois, urging my acceptance, have touched me deeply.

I have had a struggle over the matter, for I already have associations and alliances that can not easily be severed. I have hesitated, for I have apprehensions of my inability to meet your expectations. But I thank you for the manifestation of your confidence and hereby announce my purpose to enter upon the exalted position to which your honorable board has elected me, with the determination to justify your action so far as it is possible for me to do so.

I am, Sir, very sincerely yours,

A. S. DRAPER.

The board then went into executive session to consider the resignation of Professor Morrow, which resignation was accepted, to take effect September 1, 1894.

The resignation of Professor McMurry was accepted, to take place August 1, 1894.

On motion of Governor Altgeld, it was voted that the secretary of the board be directed to prepare a statement of the special advantages of this University, the statement to be signed by the president of the board of trustees, and copies to be sent to all male teachers of the state and to others interested in education. The sum of \$1,000 was appropriated for this purpose.

On motion of Mr. Raymond, the resolutions of the board instructing a committee to visit other institutions and report on the reconstruction of the agricultural department (see page 240) was notified to include the reorganization of the Experiment Station.

The finance committee made the following report, which was approved:

URBANA, ILL., August 1, 1894.

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

GENTLEMEN: Your finance committee has examined vouchers submitted by the board of direction of the Experiment Station on which warrants No. 134 to 230, inclusive, have been issued, and has found them correct and duly received.

Respectfully submitted,

ALEXANDER MCLEAN, }  
J. E. ARMSTRONG, } *Committee on Finance.*

The following report was received from the Experiment Station:

URBANA, ILL., July 31, 1894.

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

GENTLEMEN: The executive committee of the Agricultural Experiment Station respectfully reports that Mr. E. H. Farrington, chemist of the Station, has presented his resignation of that position in order to accept a position in connection with the University of Wisconsin. While regretting the loss of his valuable services, the committee recommends the acceptance of his resignation to take effect August 1st. The routine work of the chemist's office can be carried on for a short time by the assistant chemist, and it is recommended that no formal action be taken in regard to filling the position of chemist until the September meeting of the board of direction and of the board of trustees.

The committee also reports that, through its oversight at the last meeting of the board of direction, no provision was made for the continuance of experiments under the direction of Professor Forbes in the destruction of the chinch bugs. The matter had been discussed by the board of direction, and in accordance with the requests of Professor Forbes and the view of the board of direction, the committee recommends that authority be given for the expenditure of a sum not exceeding \$250 in such experiments.

It may be proper for the committee officially to call the attention of the board of trustees to the fact that congress has as yet made no appropriation for the Experiment Stations for the fiscal year beginning July 1, 1894. It is believed that there is no probability that the usual appropriation will not be made.

Respectfully submitted,

G. E. MORROW, }  
E. E. CHESTER, } *Executive Committee.*  
I. S. RAYMOND, }

On motion of Mr. McLean, the secretary was authorized to draw a Station warrant in his own favor on the treasurer for the amount needed to meet the pay rolls of the Experiment Station for the month of July.

The board of direction of the Experiment Station was authorized to expend \$250 of station funds upon the chinch bug experiment.

The following report was received from the committee on Minnesota lands:

URBANA, ILL., June 5, 1894.

*To the Board of Trustees.*

GENTLEMEN: About the first of this year Mr. Andrew Olson, to whom had been given under date of May 5, 1892, contract No. 95, for the S. W.  $\frac{1}{4}$  Sec. 6. T. 116 N., R. 34 W. 5th P. M., wrote Professor Shattuck that



he would be unable to make further payments on the land and surrendered his contract. A cash payment had been made of \$324.40 when the contract was given, but the interest due January 2, 1893, had not been paid.

Your committee having first ascertained that the contract had not been recorded, accepted the surrender subject to the approval of the Board.

Respectfully submitted,

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

The report was accepted and the committee was instructed to procure a release from Mr. Andrew Olson for the tract of land surrendered.

Upon request of Professor Forbes, after explanation made by him, the appropriation of \$200 from the State Laboratory of Natural History funds for the payment of Mr. Frank Smith, assistant zoölogist, was made \$400. (See page 260.)

The board then adjourned to meet at 8 o'clock p. m.

### ·EVENING SESSION.

The same members were present as in the afternoon, with the exception of Governor Altgeld.

Upon recommendation of the finance committee, the bill of the treasurer, Mr. Spalding, for traveling expenses, stationery, and other incidentals, amounting to \$116.72, was ordered paid from current funds.

The executive committee made the following report:

URBANA, ILL., August 2, 1894.

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

GENTLEMEN: Your executive committee begs leave to report that it has completed the purchase of the Bronson tract of land for \$4,500, as ordered, and that the deed has been duly recorded.

Respectfully submitted,

N. W. GRAHAM, }  
S. A. BULLARD, } *Executive Committee.*  
N. B. MORRISON, }

The report was approved.

The committee on buildings and grounds made the following report, which was approved;

URBANA, ILL., August 2, 1894.

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

GENTLEMEN: Your committee on buildings and grounds begs leave to report that it has examined into the advisability of boring for natural gas in the vicinity of the University, and, after thoroughly investigating the subject, and from the advice of the professor of geology, it was decided best not to expend any money in making any investigations.

Respectfully submitted,

N. B. MORRISON, } *Committee on*  
S. A. BULLARD, } *Buildings and Grounds.*

The following committee report was received and approved:

URBANA, ILL., August 1, 1894.

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

GENTLEMEN: Your special committee to which was referred the petition of Messrs. W. A. Heath and Solon Philbrick, regarding the action of the faculty in withholding the diploma of George Frederickson, begs leave to report:

Your committee has examined into the merits of the case as far as possible, and, after consideration, recommends to the faculty that Mr. Frederickson be permitted to prepare for examination in the studies required, and that examination be given him, and that if all the requirements have been complied with, his graduation papers be issued to him at the end of the fall term of 1894; and that he be classed with the class of 1894.

Respectfully submitted,

S. A. BULLARD, }  
J. E. ARMSTRONG, } *Committee.*

A communication was received from the Urbana and Champaign Electric Street Railway Company, asking permission to run across the University property along the line of Wright street, extended south to road on the north of Mt. Hope Cemetery. The consideration of this request was postponed till next meeting of the board.

The secretary was instructed to get from the attorney general his opinion as to the power of the board to comply with his request.

Mr. Morrison stated that Mr. I. H. Rapp, superintendent of the construction of Engineering Hall, tendered his resignation, and asked to be relieved as soon as practicable.

On motion of Mr. McLean his resignation was referred to the committee on buildings and grounds with power to act, and the committee was instructed to secure a superintendent as soon as practicable.

On motion of Mr. Armstrong, Dr. Burrill was made dean of the general faculty, and it was ordered that his salary from August 1, 1894, should be \$2,700 a year from the University and \$300 from the Experiment Station.

The committee on instruction made the following report:

URBANA, ILL., Aug. 1, 1894.

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

GENTLEMEN: Your committee on instruction having duly considered the fitness of the persons named for their respective positions, nominates W. J. Eckoff, PH.D., as Professor of Pedagogics, with a salary of eight-hundred dollars per annum, and Percy F. Bicknell, A.M., as librarian, at a salary of fifteen hundred dollars per annum.

It is recommended that Professor Palmer be charged with the general business affairs of the chemical laboratory; and that Professor Parr's title be changed from professor of analytical chemistry to that of professor of applied chemistry, and that their departments be separately organized as agreed upon between themselves.

We recommend the appointment of one additional instructor in chemistry, at a salary of not to exceed one hundred dollars a month, for ten months; one assistant in mechanical engineering, at a salary not to exceed eighty dollars a month, for ten months; one assistant in physics, at a salary not to exceed eighty dollars a month, for ten months; one store-keeper in the electrical laboratory, at thirty dollars for ten months; H. E. Reeves, assistant in military science, at not to exceed one hundred dollars for the year; Edward Lake, assistant in art and design, at forty-five dollars a month for ten months; Robert C. Vial, assistant in general engineering drawing, at sixty dollars a month for ten months; Henry Jones, blacksmith, at fifty dollars a month for ten months; and one assistant in preparatory Latin and Greek.

Your committee would further report that by your authority, in connection with the acting regent, it has appointed Jeremiah G. Mosier assistant in geology and mineralogy, at a salary of sixty dollars a month for ten months; Miss Adelle Clendenin, assistant in English, at sixty dollars a month, for ten months; and the following named persons as fellows, at four hundred dollars a year each: Robert A. Wood, mechanical engineering; Chas. F. Hottes, natural science; Grant C. Miller, architec-

ture: Miss Ola C Woolsey, Latin; Walter S. McGee, mathematics. Miss Gertrude Shawhan has been employed to teach a class in French, at \$200 a year.

Respectfully submitted,

HENRY RAAB, } *Committee*  
J. E. ARMSTRONG, } *on Instruction.*

The report was accepted, except that the matter of creating new places and filling them, as recommended by the committee, was referred to the president and executive committee with power to act.

The board then adjourned to meet at 8:30 a. m.

### THURSDAY MORNING SESSION.

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

On motion of Mr. Bullard, President Draper was authorized to purchase furniture for his office and to re-arrange the administrative offices of the University, if found desirable. Five hundred dollars was appropriated for this purpose.

The committee on finance made the following report:

URBANA, ILL., August 2, 1894.

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

GENTLEMEN: Your finance committee reports that it has examined the report of Mr. C. W. Spalding, treasurer, from March 1 to May 31, 1894, inclusive, and finds that he had a balance on hand of all funds—\$121,592.59; that he collected from all sources \$20,029.35; making a total of \$141,621.94. That during the same term, as per vouchers, he paid out the sum of \$79,153.20, leaving a balance on hand, May 31, 1894, of the several funds, of \$67,468.74. We therefore recommend that the same be approved.

Respectfully submitted,

ALEX. MCLEAN, } *Finance Committee.*  
J. E. ARMSTRONG, }

On motion of Mr. Armstrong, it was voted that the president and Dr. Burrill be authorized to make such arrangements for instruction in music during the year as may be found best; and that they be authorized to expend not to exceed \$300 for this purpose.

It was voted that the September meeting of the board should be held on the fourth Tuesday.

The following preamble and resolution were adopted:

*Whereas*, Our original charter designated the chief executive officer of the University as the "regent," but since that time the duties of that office have been materially changed, and the title of "president" has come to be recognized in the law and seems more appropriate, and the present time seems opportune for making the change, therefore, be it

*Resolved*, That hereafter the title of the office be that of "president," and that the legislature be asked at the next session to confirm this action by a formal enactment.

The following report was made by the finance committee.

URBANA, ILL., August 2, 1894.

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

GENTLEMEN: Your finance committee has examined the vouchers submitted by the business agent, Professor S. W. Shattuck, No. 576 to 1175, inclusive, for the quarter ending February 28, 1894, and has found them correct and duly signed.

Respectfully submitted,

ALEX. MCLEAN, } *Finance Committee.*  
J. E. ARMSTRONG, }

Further consideration of the request made by the college of engineering for a stenographer was postponed for the September meeting.

On motion of Mr. Raab, \$300 was appropriated to be used in fitting up rooms for the model school.

The question of making an appropriation for the library being under consideration, Mr. Morrison moved that the subject be postponed till the September meeting; this motion did not prevail. On motion of Mr. Raab, \$500 was appropriated from the general fund for the immediate purchase of books for the library.

The matter of additional room for the testing laboratory was referred to the president with power to act.

On motion of Mr. McLean, it was voted that the students having had six terms of drill and of recitations be eligible for appointment as lieutenants; that those having had nine terms of drill and of recitations be eligible for appointment as majors and captains.

That scholarships of the money value of twenty-two and one-half dollars, payable at the end of the college year, be awarded to the lieutenants, majors, and captains. No recitations to be required of seniors.

On motion of Mr. Armstrong, Professor Ricker was elected dean of the college of engineering; Professor Forbes, dean of the college of science, and Professor Kinley, dean of the college of literature.

The following preamble and resolution were adopted on motion of Mr. McLean:

*Whereas*, I. H. Rapp, our superintendent on engineering hall, has, on account of pressing business at home, been compelled to offer his resignation as superintendent, to take effect immediately; therefore, be it

*Resolved*, That the board tender to Mr. Rapp its thanks for his faithful and intelligent attention as superintendent on said building, and accept his resignation as requested, at the same time recommending him as a gentleman able and efficient in this line of work.

The president of the board spoke of the fact that recently Mr. John H. Bryant, a member of the board, had passed his eighty-seventh birthday, and suggested that some notice of this be taken by the board. On motion of Mr. McLean, the President and Mr. Bullard were appointed a committee to express to Mr. Bryant the congratulations and good wishes of the board.

The following resolutions, prepared by Dr. Burrill and Mr. McLean, concerning Professor Morrow's work in the University, were adopted:

*Whereas*, Professor George E. Morrow has been for seventeen years professor of agriculture in the University of Illinois, and has continuously performed the very many duties of his responsible office with conscientious fidelity and widely acknowledged ability; and,

*Whereas*, He has for seven years faithfully served as agriculturist of the Agricultural Experiment Station connected with this University, and for three years as president of its board of direction; and,

*Whereas*, He has tendered his resignation of these offices, which resignation has been accepted by this board; therefore, be it

*Resolved*, That we, the Board of Trustees of the University of Illinois, do express to Professor Morrow our high appreciation of his upright, manly character and of his signal services to the cause to which he has devoted his professional life within and without the University; and,

*Resolved*, That we extend to him our heartiest good wishes and good will and our best hopes for his future prosperity and happiness.

*Resolved*, That the secretary of this board be requested to give a copy of these resolutions to Professor Morrow.

Mr. Armstrong presented the following report of the summer school, prepared by Professor Kinley, which was received for record:

URBANA, ILL., July 10, 1894.

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

GENTLEMEN: I hereby submit the report of the work of the summer school.

The number enrolled was 38. Of these 25 were teachers in the public schools, one was an instructor in the University, 8 were students of the University and 4 were unclassified.

Excluding students, 9 came from the immediate neighborhood, Urbana and Champaign, 18 from other places in the state and 3 from other states.

The subjects offered were chosen as follows: Mathematics, by 18 students, as follows: Algebra, 6; geometry, 5; trigonometry, 1; calculus, determinants and conic sections, each, 2; chemistry, 11, as follows: Elementary chemistry, 8; analytical chemistry, 2; organic chemistry, 1; pedagogy, 10; zoölogy, 9; physical culture, 8 (all women); history, 7, as follows: U. S. history (civil government), 5; 19th century history, 2; English literature, 5, as follows: English literature proper, 2; composition, 1; rhetoric and grammar, 2; botany, 5; experimental psychology and physiology, each, 3; economics, empirical psychology and child-study, each, 2; entomology, 0.

Several requests were made for a reduction of the tuition fee by students who could stay only part of the term. A reduction was made in the case of two persons, a gentleman and his wife, who found it impossible to stay more than three weeks. It seemed best for the interests of the University that they should go away feeling satisfied with the treatment they had received. Accordingly, after consultation with Professor McMurry and two of the older members of the University faculty, I gave them orders on the business agent for a rebate of \$2 each. This leaves the amount received for tuition, \$376. If this action does not meet your approval, I shall, of course, gladly be responsible for the amount of the rebates.

Some difficulty arose in the matter of salaries. On page 235 of the printed report of the proceedings at your March meeting is a statement of the appropriation for the summer school. According to that statement \$1,000 was appropriated for salaries. On the preceding page (234) is a recommendation of your committee on the summer school that each instructor therein be allowed for his services one-tenth of his annual salary. According to the report of your committee, approved at that same meeting, the studies offered in the summer school necessitated the employment of seven instructors, whose aggregate salaries amounted to \$1,010. Afterwards, by direction of your committee, two others, Professors Krohn and Myers, were added, making the salary list \$1,340. Moreover, Professors Palmer and Parr were both engaged to teach the chemistry offered, on the understanding that the amount of salary for one professor (\$200) should be assigned to both, to be divided between them, provided the work asked for by students in chemistry was not more than full work for one professor. Professor Palmer had full work during the session and Professor Parr half work. Therefore, according to the understanding, the professors of chemistry should have one salary and a half, or \$290. In view, however, of the fact that this arrangement for an additional half salary for the professors of chemistry has not been approved by you, I could not, of course, approve its payment. In view, further, of the fact that only \$1,000 was appropriated for salaries, I judged that I had no authority to approve the full salary list. Accordingly, I approved to the business agent a salary list, on a pro rata basis, up to the amount of \$1,000. I would respectfully recommend that an additional half salary be allotted to the professors of chemistry, in accordance with the understanding mentioned above, which they had with Professor McMurry, and that an additional appropriation of \$430 be made to pay

this extra half salary, and also the amounts remaining due the other instructors. I append a statement of the pro rata amounts which I have approved, allowing one salary for the professors of chemistry, allowing one salary and a half for these professors, and of the amounts remaining due the instructors.

In response to the request of his students in that subject and of the members of his class in general pedagogy, and in accordance with the provision for such changes announced in the printed circular, it was deemed advisable for Professor Charles McMurry to change his course in empirical psychology to one in the study of special problems in pedagogy. This change was made and the new course taken by some eight or nine, mainly the members of his other class.

The experience of this, the first, session of the summer school, demonstrates the wisdom of its establishment. The enrollment is very encouraging, and is larger than in the case of some similar undertakings elsewhere at different times. The students, so far as I have been able to determine, were all well satisfied, and I feel confident that the number in attendance will be largely increased by another year. In order to promote this very desirable end the plans for next summer should be made early in the University year and systematically and thoroughly advertised during the year.

On the basis of the experience of this summer's session, I beg leave to make the following recommendations to your honorable body:

1. That the summer school be continued.
2. That the subjects of study offered this summer be continued next summer, with the following exceptions and additions: That entomology be dropped; that chemistry be put definitely under the charge of one instructor; that all the psychology and the pedagogy be in charge of one instructor; that the courses offered in mathematics do not go beyond trigonometry; and that elementary physics and Latin be added. There were requests for both the last named subjects.

The reason for suggesting these changes is obvious. The attendance at the summer school will be made up mainly of teachers in the public schools. While, therefore, the work should be in quality equal to regular University work, the subjects offered should consist chiefly of those which teachers are likely to demand. It seems inadvisable that an instructor should devote one hour a day to a single student who is backward in his University work, when, if he offered some subject desirable for teachers, several might take the course. This has happened, however, in the session just closed. It would seem better that a double fee (\$20) should be charged all University students who wish to make up back work, unless a class of at least five can be formed in the study asked for.

3. That students be not permitted to study for university credits in advance, except in subjects which are listed in the catalogue as fractional courses, and then only on payment of a double fee unless a class of five can be formed. It is exceedingly undesirable to encourage any one in an effort to do three months' work in one, especially in the summer.

4. That certificates of the amount of work done, if a satisfactory examination is passed on it, be issued to those students of the summer school who apply for them, and who have been present through the entire session of the school.

The faculty of the summer school recommends at my suggestion that a reduction of fee be made to students who cannot remain through the entire session, according to the following scale and on the following conditions:

1. That the full fee shall in all cases be deposited, and a rebate given only if the student gives notice, when he enters, of his inability to remain through the entire session.

2. That a rebate of \$2 be made for each full week remaining between the time of the student's withdrawal and the end of the session.

3. That students shall not be accepted for less than the full session in courses in which the instructor in charge thinks it inadvisable, these courses to be specified in the printed circular.

I append the statement in regard to salaries.

	Salaries due.	Amounts approved.	Amounts remaining due.
Miss Barber.....	\$60 00	\$44 78	\$15 22
Miss Kellogg.....	100 00	74 63	25 37
Professor Kinley.....	189 00	134 33	45 67
Professor Krohn.....	180 00	134 33	45 67
Professor McMurry.....	200 00	149 25	50 75
Professor Katharine Merrill.....	120 00	89 55	30 45
Professor Myers.....	150 00	111 94	38 06
Professors Palmer and Parr.....	200 00	149 25	50 75
Professor Summers.....	150 00	111 94	38 06
Total.....	\$1,340 00	\$1,000 00	\$340 00

If one salary and a half be allowed Professors Palmer and Parr the amount remaining due them will be \$140.75, and the total additional appropriation necessary will be \$430. □

In conclusion I would say that the work during this session has proceeded smoothly and the corps of instructors has given every aid in promoting the success of the experiment. All of which is respectfully submitted.

DAVID KINLEY.

*Assistant (and Acting) Director of the Summer School.*

On motion of Mr. Armstrong, the business agent was authorized to use the fees paid by those attending the summer school, or so much thereof as might be needed, to pay the \$340 still remaining due the instructors of the summer school, according to the report of Professor Kinley.

The board adjourned.

W. L. PILLSBURY,

*Secretary.*

N. W. GRAHAN,

*President.*

*List of Warrants for Year Ending August 31, 1894.*

No.	Date.	To whom.	For what.	Amount.
	1893.			
1	Sept. 15	N. W. Graham	Expense to board meeting	\$19 02
2	" 15	Alex. McLean	" " "	22 43
3	" 15	S. A. Bullard	Expense to board and Com. meeting	23 10
4	" 15	Henry Raab	Expense to board meetings	20 00
5	" 15	N. B. Morrison	" " "	87 79
6	" 15	F. M. McKay	" " "	17 80
7	" 15	J. E. Armstrong	" " "	20 84
8	" 15	Isaac S. Raymond	" " "	25 35
9	" 15	John W. Bunn	" " "	493 11
10	" 15	T. J. Burrill	Traveling expenses	53 45
11	" 15	Ira O. Baker	" " "	6 00
12	" 15	B. V. Svenson	Salary, part August, 1893	38 39
13	" 15	Jas. M. White	Services as architect	185 00
14	" 15	Schaeffer & Budenberg	Indicators, etc.	93 13
15	" 15	S. M. Millard	Attorney fees	100 00
16	" 15	Western Union Telegraph Co.	Telegraph charges	5 43
17	" 15	M. S. Hinrichson	Postage	3 08
18	" 15	Mathews Gas Machine Co.	Sink, etc.	21 53
19	" 15	S. A. Forbes	Expenses	10 79
20	" 15	John Marten	" " "	11 75
21	" 15	J. W. Franks & Sons	Printing	162 69
22	" 15	F. L. Bills	Postage	30 00
23	" 15	Agricultural department, U. of I.	Expenses, August, 1893	92 04
24	" 15	Pay-roll of men, August, 1893	Labor	871 36
25	" 15	Pay roll of students, August, 1893	" " "	103 40
26	" 30	T. J. Burrill	Salary for September, 1893	266 66
27	" 30	S. W. Shattuck	" " "	166 66
28	" 30	E. Snyder	" " "	166 66
29	" 30	N. C. Ricker	" " "	166 66
30	" 30	G. E. Morrow	" " "	108 33
31	" 30	I. O. Baker	" " "	166 66
32	" 30	S. A. Forbes	" " "	83 33
33	" 30	C. W. Rolfe	" " "	166 66
34	" 30	D. McIntosh	" " "	150 00
35	" 30	A. N. Talbot	" " "	166 66
36	" 30	A. W. Palmer	" " "	166 66
37	" 30	F. F. Frederick	" " "	150 00
38	" 30	S. W. Parr	" " "	150 00
39	" 30	H. J. Barton	" " "	166 66
40	" 30	Charles M. Moss	" " "	166 66
41	" 30	D. K. Dodge	" " "	166 66
42	" 30	F. M. McMurtry	" " "	166 66
43	" 30	L. P. Breckenridge	" " "	166 66
44	" 30	G. W. Myers	" " "	125 00
45	" 30	Katharine Merrill	" " "	100 00
46	" 30	D. W. Shea	" " "	150 00
47	" 30	W. O. Krohn	" " "	150 00
48	" 30	Elizabeth Cooley	" " "	133 33
49	" 30	David Kinley	" " "	150 00
50	" 30	J. D. Bruner	" " "	150 00
51	" 30	H. E. Summers	" " "	100 00
52	" 30	Jas. M. White	" " "	108 33
53	" 30	W. H. Van Dervoort	" " "	125 00
54	" 30	E. J. Townsend	" " "	116 66
55	" 30	E. K. Hall	" " "	125 00
56	" 30	W. D. Pence	" " "	120 00
57	" 30	Maud Kimball	" " "	30 00
58	" 30	Edith A. Shattuck	" " "	70 00
59	" 30	T. A. Clark	" " "	100 00
60	" 30	C. D. McLane	" " "	100 00
61	" 30	F. D. Gardner	" " "	41 66
62	" 30	W. E. Sandford	" " "	75 00
63	" 30	Alice M. Barber	" " "	60 00



*List of Warrants—Continued.*

No.	Date.	To whom.	For what.	Amount.
	1893.			
64	Sept. 30....	H. S. Piatt.....	Salary for September, 1893.....	\$80 00
65	" 30....	J. D. Phillips.....	" " " " " " " " " " " "	75 00
66	" 30....	C. A. Gunn.....	" " " " " " " " " " " "	75 00
67	" 30....	A. H. White.....	" " " " " " " " " " " "	75 00
68	" 30....	W. Esty.....	" " " " " " " " " " " "	100 00
69	" 30....	E. G. Howe.....	" " " " " " " " " " " "	150 00
70	" 30....	Anita M. Kellogg.....	" " " " " " " " " " " "	100 00
71	" 30....	A. H. Daniels.....	" " " " " " " " " " " "	100 00
72	" 30....	Frank Smith.....	" " " " " " " " " " " "	100 00
73	" 30....	Albert Curtiss.....	" " " " " " " " " " " "	75 00
74	" 30....	B. V. Swenson.....	" " " " " " " " " " " "	75 00
75	" 30....	F. W. Richart.....	" " " " " " " " " " " "	70 00
76	" 30....	C. B. Clark.....	" " " " " " " " " " " "	75 00
77	" 30....	H. S. Parker.....	" " " " " " " " " " " "	30 00
78	" 30....	N. A. Weston.....	" " " " " " " " " " " "	75 00
79	" 30....	W. D. Gibbs.....	" " " " " " " " " " " "	40 00
80	" 30....	C. V. Millar.....	" " " " " " " " " " " "	40 00
81	" 30....	W. C. Carter.....	" " " " " " " " " " " "	40 00
82	" 30....	C. Bennett.....	" " " " " " " " " " " "	83 33
83	" 30....	Lillie Heath.....	" " " " " " " " " " " "	45 00
84	" 30....	Elva Blount.....	" " " " " " " " " " " "	40 00
85	" 30....	A. B. Baker.....	" " " " " " " " " " " "	70 00
86	" 30....	J. Morrow.....	" " " " " " " " " " " "	60 00
87	" 30....	L. H. Walden.....	" " " " " " " " " " " "	25 00
88	" 30....	A. Iten.....	" " " " " " " " " " " "	25 00
89	" 30....	C. A. Herme.....	" " " " " " " " " " " "	30 00
90	" 30....	L. G. Lathrop.....	" " " " " " " " " " " "	30 00
91	" 30....	H. C. Forbes.....	" " " " " " " " " " " "	83 33
92	" 30....	John Marten.....	" " " " " " " " " " " "	83 33
93	" 30....	Mary J. Snyder.....	" " " " " " " " " " " "	62 50
94	" 30....	Chas. A. Hart.....	" " " " " " " " " " " "	62 50
95	" 30....	Yerkes & Finan W. W. M. Co.....	Band saw.....	123 65
96	" 30....	Darling, Brown & Sharpe.....	Calipers.....	22 50
97	" 30....	Brown & Sharpe Mfg. Co.....	" " " " " " " " " " " "	39 60
98	" 30....	Queen & Co., incorporated.....	Electrical supplies, etc.....	367 45
99	" 30....	W. & L. E. Gurley.....	Compass.....	40 00
100	" 30....	G. E. Stechert.....	Books.....	178 45
101	" 30....	The Herald Pub. Co.....	Advertising.....	3 00
102	" 30....	The Inter-Ocean.....	" " " " " " " " " " " "	9 45
103	" 30....	The Chicago Herald Co.....	" " " " " " " " " " " "	15 75
104	" 30....	The Chicago Builder and Trader.....	" " " " " " " " " " " "	10 00
105	" 30....	The Tribune Co.....	" " " " " " " " " " " "	20 70
106	" 30....	The Illinois State Register.....	" " " " " " " " " " " "	4 00
107	" 30....	The Chicago Times.....	" " " " " " " " " " " "	14 25
108	" 30....	The Champaign Times.....	" " " " " " " " " " " "	4 15
109	" 30....	Montgomery & Co.....	Iron.....	11 36
110	" 30....	Otis C. White.....	Laboratory supplies.....	13 00
111	" 30....	Southwick & Critchley.....	Pins.....	7 50
112	" 30....	U. S. Express Co.....	Expressage.....	9 46
113	" 30....	A. H. Baldwin.....	Drawings of fishes.....	54 70
114	" 30....	Marine Biological Lab.....	Laboratory material.....	96 20
115	" 30....	Sheldon Brick Co.....	Brick.....	130 80
116	" 30....	Bevis & Co.....	Drawers, cases, etc.....	125 00
117	" 30....	Wm. Price.....	Painting, etc.....	201 15
118	" 30....	Hammond Typewriter Co.....	Typewriter and cabinet.....	73 50
119	" 30....	G. W. Yates.....	Carpet.....	36 46
120	" 30....	A. H. Revell & Co.....	Desk.....	18 50
121	" 30....	W. C. Vosburgh Mfg. Co.....	Gas fixtures.....	30 00
122	" 30....	U. S. treasury.....	Losses on military stores.....	7 84
123	" 30....	I. M. Holland.....	Sand.....	25 50
124	" 30....	Ludington, Wells, Van Schaick Co.....	Lumber.....	433 00
125	" 30....	B. F. Crow.....	Centrolinead.....	10 00
126	" 30....	S. P. Sutton.....	Salary, August and September, 1893.....	166 66
127	" 30....	Granolithic Pavement Co.....	Cement walks.....	463 80
128	" 30....	A. P. Winston.....	Salary, September, 1893.....	100 00
129	" 30....	G. W. Parker.....	" " " " " " " " " " " "	115 00
130	" 30....	G. A. Gray Co.....	Planer.....	660 00
131	" 30....	The Lodge & Davis M. T. Co.....	Sensitive drill.....	50 00
132	" 30....	N. C. Ricker.....	Services as architect.....	32 55
133	Oct. 5....	Odin Coal Co.....	Coal.....	562 89
134	" 7....	Geo. W. Bullard.....	Services as architect.....	2,000 00
135	" 7....	Granolithic Pavement Co.....	Cement walks and floors.....	414 00
136	" 16....	N. W. Graham.....	Expenses to board meeting.....	17 02
137	" 16....	Alex. McLean.....	Expenses to board and Com. meeting.....	94 85
138	" 16....	R. P. Morgan.....	Expenses to board meeting.....	36 02
139	" 16....	F. M. McKay.....	" " " " " " " " " " " "	13 50
140	" 16....	McIntosh Battery & Optical Co.....	Rock sections.....	150 00

*List of Warrants—Continued.*

No.	Date.	To whom.	For what.	Amount.
	1893.			
141	Oct. 16	Chas. Verdin	Apparatus	\$76 20
142	" 16	W. O. Krohn	Laboratory expenses	2 60
143	" 16	R. Friedlander & Son	Books	73 43
144	" 16	Robinson & Burr	Repairs, etc.	37 20
145	" 16	H. C. Forbes	Expenses paid	13 59
146	" 16	C. A. Hart	Traveling expenses	1 80
147	" 16	Adams Express Co.	Expressage	4 74
148	" 16	Webster Mfg. Co.	Chairs	2 00
149	" 16	G. E. Stechert	Apparatus	79 13
150	" 16	Eimer & Amend	Chemical supplies	35 55
151	" 16	George Besore	Lumber	424 49
152	" 16	Oscar Miller	Hardware	11 00
153	" 16	T. R. White, Jr.	Gas, July 1 to Oct. 1, 1893	111 20
154	" 16	A. Zeese & Co.	Zinc plates	14 00
155	" 16	North American Review	Subscription	5 00
156	" 16	Champaign County Herald	Printing and paper	58 00
157	" 16	F. L. Bills	Postage	30 00
158	" 16	Hammond Typewriter Co.	Ribbons and spools	2 40
159	" 16	Ill. Society of Eng. and Surveyors	Advertising	10 00
160	" 16	A. C. McClurg & Co.	Stationery	65 38
161	" 16	S. W. Shattuck	Petty expenses, 3 months, August 31	31 63
162	" 16	Agr'l. Depart. University of Ill.	Expenses, September, 1893	108 95
163	" 16	J. C. Vaughan	Nursery stock	3 09
164	" 16	Goodyear Rubber Co.	Rubber hose and tubing	28 95
165	" 16	Richards & Co., Ltd	Chemical supplies	77 99
166	" 16	Baker & Adamson	Acid, etc.	20 60
167	" 16	Northwestern Calcium Light Co.	Gas	7 75
168	" 16	Stearns' Lime and Stone Co.	Brick and clay	12 50
169	" 16	The Dickson Mfg. Co.	Doors, transoms, etc.	266 79
170	" 16	The Union Mfg. Co.	Water 3 months to Oct. 1, 1893	125 00
171	" 16	Bullard & Gormley Co.	Registers	12 60
171	" 16	Frank Young	Piano tuning	3 00
173	" 16	J. R. Greenhalgh	Glassware	9 90
174	" 16	Smith & Webster	Plumber's goods	42 75
175	" 16	Eugene Dietzgen & Co.	Surveying pins, etc.	11 21
176	" 16	Fuller & Fuller Co.	Glass, acid, etc.	65 73
177	" 16	Queen & Co.	Balances and weights	128 30
178	" 16	Crane Co.	Pipe and fittings	188 79
179	" 16	Richard Kny & Co.	Chemical apparatus	138 78
180	" 16	McConnell Filter Co.	Filter	12 00
181	" 16	Ohio Stamp Works	Set stamps	3 05
182	" 16	Fox Machine Co.	Trimmer	48 00
183	" 16	Brown & Sharpe Mfg. Co.	Grinder	541 02
184	" 16	J. T. Slocumb & Co.	Center drills	3 00
185	" 16	Thompson & Van Buren	Printing cards	3 00
186	" 16	Mich. Agricultural College	Blue prints	7 80
187	" 16	Jas. A. Taylor & Co.	Crescent gauge, etc.	1 19
188	" 16	Bacon, Mittendorf & Hall	Stools, shades, etc.	58 96
189	" 16	The treasury of the U. S.	Loss of ordnance stores	43 58
190	" 16	Abendroth & Root Mfg. Co.	Tubes, gaskets, etc.	114 10
191	" 16	Henry Heil Chem. Co.	Chemical apparatus, etc.	315 94
192	" 16	Williams, Brown & Earl	Jars, etc.	4 55
193	" 16	Kenf- & Esser Co.	Drawing materials	7 20
194	" 16	O. Riley	Use of piano	31 00
195	" 16	Mrs. M. A. De Hart	Making bags	3 65
196	" 16	Revere Rubber Co.	Apparatus	40 95
197	" 16	U. S. Patent Office	Binding reports	31 20
198	" 16	F. E. Galloupe	Engineering Index	3 00
199	" 16	G. E. Stechert	Books	34 88
200	" 16	Ginn & Co.	Books	2 50
201	" 16	Maltby & Wallace	Pipe, fittings and repairs	34 08
202	" 16	Harrison Bros. & Co.	Paint	6 30
203	" 16	Isaac Fielding	Postage	5 00
204	" 16	Central Union Telephone Co.	Rent on instrument, Dec. 31, 1893	15 00
205	" 16	Stover Novelty Works	Saw rest	17 01
206	" 16	Wm. Jessup & Sons	Steel	23 41
207	" 16	Brown & Sharpe Mfg. Co.	Apparatus	54 54
208	" 16	Darling, Brown & Sharpe	"	21 06
209	" 16	Bausch & Lomb Optical Co.	"	6 98
210	" 16	The American Contractor	Advertising	11 25
211	" 16	St. Louis Republican	"	15 60
212	" 16	Illinois State Journal	"	4 50
213	" 16	The Tribune Co.	"	25 20
214	" 16	The Chicago Herald Co.	"	19 50
215	" 16	The Journal	"	6 25
216	" 16	Illinois State Register	"	5 50
217	" 16	St. Louis Globe Democrat	"	21 00

*List of Warrants—Continued.*

No.	Date.	To whom.	For what.	Amount.
	1892.			
218	Oct. 16	The Inter Ocean	Advertising	\$11 70
219	" 16	John O'Neil & Sons	Plumbing	1,774 00
220	" 16	I. C. R. R. Co.	Freightage	63 57
221	" 16	C. C. C. St. L. Ry. Co.	"	21 33
222	" 16	The Pacific Express Co.	"	20 41
223	" 16	The American Express Co.	"	47 27
224	" 16	Pay-roll men and women Sept., '93	Labor	607 81
225	" 16	Pay-roll students Sept., 1893	"	208 42
226	" 31	T. J. Burrill	Salary for October, 1892	266 66
227	" 31	S. W. Shattuck	"	166 66
228	" 31	E. Snyder	"	166 66
229	" 31	N. C. Ricker	"	166 66
230	" 31	G. E. Morrow	"	108 33
231	" 31	I. O. Baker	"	166 66
232	" 31	S. A. Forbes	"	83 33
233	" 31	C. W. Rolfe	"	166 66
234	" 31	D. McIntosh	"	150 00
235	" 31	A. N. Talbot	"	166 66
236	" 31	A. W. Palmer	"	166 66
237	" 31	F. F. Frederick	"	150 00
238	" 31	S. W. Parr	"	150 00
239	" 31	H. J. Barton	"	166 66
240	" 31	Chas. M. Moss	"	166 66
241	" 31	D. K. Dodge	"	166 66
242	" 31	F. M. McMurtry	"	166 66
243	" 31	L. P. Breckenridge	"	166 66
244	" 31	G. W. Myers	"	125 00
245	" 31	Katharine Merrill	"	106 00
246	" 31	D. W. Shea	"	150 00
247	" 31	W. O. Krohn	"	150 00
248	" 31	Elizabeth Cooley	"	133 33
249	" 31	David Kinley	"	150 00
250	" 31	J. D. Bruner	"	150 00
251	" 31	H. E. Summers	"	100 00
252	" 31	J. M. White	"	108 33
253	" 31	W. H. Vandervoort	"	125 00
254	" 31	R. J. Townsend	"	116 66
255	" 31	E. K. Hall	"	125 00
256	" 31	G. W. Parker	"	115 00
257	" 31	W. D. Peuce	"	120 00
258	" 31	Maud Kimball	"	30 00
259	" 31	Edith A. Shattuck	"	70 00
260	" 31	F. A. Clark	"	100 00
261	" 31	C. D. McLane	"	100 00
262	" 31	F. D. Gardner	"	41 66
263	" 31	W. E. Sandford	"	75 00
264	" 31	Alice M. Barber	"	60 00
265	" 31	H. S. Piatt	"	80 00
266	" 31	J. D. Phillips	"	75 00
267	" 31	C. A. Gunn	"	75 00
268	" 31	A. H. White	"	75 00
269	" 31	William Esty	"	100 00
270	" 31	E. G. Howe	"	150 00
271	" 31	Anita M. Kellogg	"	100 00
272	" 31	A. H. Daniels	"	100 00
273	" 31	Frank Smith	"	100 00
274	" 31	A. P. Winston	"	100 00
275	" 31	Albert Curtiss	"	75 00
276	" 31	B. V. Swenson	"	75 00
277	" 31	F. W. Richart	"	70 00
278	" 31	C. B. Clark	"	75 00
279	" 31	H. E. Parker	"	30 00
280	" 31	N. A. Weston	"	75 00
281	" 31	W. D. Gibbs	"	40 00
282	" 31	C. V. Millar	"	40 00
283	" 31	C. W. Carter	"	40 00
284	" 31	C. Bennett	"	83 33
285	" 31	Lillie Heath	"	45 00
286	" 31	Elva Blount	"	45 00
287	" 31	A. B. Baker	"	70 00
288	" 31	J. Morrow	"	60 00
289	" 31	L. H. Walden	"	25 00
290	" 31	A. Iten	"	25 00
291	" 31	C. A. Herme	"	30 00
292	" 31	L. G. Lathrop	"	30 00
293	" 31	J. A. Newlin	"	40 00
294	" 31	H. C. Forbes	"	83 33
295	" 31	John Marten	"	83 33

*List of Warrants—Continued.*

No.	Date.	To whom.	For what.	Amount.
	1892.			
296	Oct. 31.	Mary J. Snyder.....	Salary for October, 1893 .....	\$62 50
297	" 31.	Chas A. Hart .....	" " .....	62 50
298	" 31.	H. E. Summers.....	" " .....	50 00
299	" 31.	American Express Co. ....	Freightage .....	19 20
300	" 31.	John Marten .....	Expenses .....	22 31
301	" 31.	G. C. Willis.....	Canvases, etc. ....	\$3 30
302	" 31.	Pantagraph Printing Co. ....	Class records.....	58 95
303	" 31.	Frank Smith.....	Books.....	10 50
304	" 31.	Knowlton & Bennett.....	Paint, etc.....	3 55
305	" 31.	Frank Blake Webster Co. ....	Subscription.....	1 00
306	" 31.	L. S. Foster.....	" .....	9 00
307	" 31.	E. H. Sargent & Co. ....	Apparatus .....	36 28
308	" 31.	The Transcript Co. ....	Advertising.....	8 00
309	" 31.	Indianapolis Sentinel .....	" .....	8 00
310	" 31.	Phillips Bros .....	Specifications.....	61 25
311	" 31.	The Polygraph Printing Co. ....	Blue prints.....	44 85
312	" 31.	S. A. Bullard .....	Expenses, expres, telegrams, etc. ....	18 93
313	" 31.	Fitzgerald Plaster Co. ....	Plaster compound.....	47 40
314	" 31.	Henry Trevett .....	Hardware .....	242 57
315	" 31.	Bevis & Co .....	Desks.....	180 00
316	" 31.	Richards & Co. ....	Chemical supplies.....	41 00
317	" 31.	Westcott Chuck Co. ....	Chucks.....	4 80
318	" 31.	The Pratt & Whitney Co. ....	Tools, etc.....	72 75
319	" 31.	Michigan Agricultural College .....	Punching machine.....	14 00
320	" 31.	Wynne & Gordon.....	Vises .....	156 67
321	" 31.	The Machinists' Supply Co. ....	Tools, etc.....	94 05
322	" 31.	N. W. Graham .....	Expenses to board and com. meeting.....	25 00
323	" 31.	B. F. Stevens.....	Books.....	17 53
324	" 31.	Fred Finder.....	Drayages.....	6 75
325	" 31.	W. O. Krohps.....	Expenses.....	1 60
326	Nov. 15.	Yeager & Schultz.....	Labor and material, Eng. Hall .....	2, 415 44
327	" 15.	J. E. Armstrong.....	Expenses.....	64 15
328	" 15.	W. L. Pillsbury.....	Expenses to com. meeting, Chicago.....	26 50
329	" 15.	C. W. Carter.....	Express charges.....	2 35
330	" 15.	F. L. Bills.....	Postage.....	30 00
331	" 15.	W. E. Sandford.....	Expenses of laboratory.....	2 05
332	" 15.	H. J. Barton.....	Traveling expenses.....	10 82
333	" 15.	Earl R. Smith.....	Painting signs.....	6 50
334	" 15.	Isaac Fielding.....	Postage.....	10 50
335	" 15.	C. A. Hart.....	Traveling expenses.....	6 35
336	" 15.	Iydia M. Hart.....	Drawings.....	23 00
337	" 15.	D. A. Sargent.....	Photographs.....	16 25
338	" 15.	Nasser & Abo Samro .....	Museum materials.....	23 75
339	" 15.	Mrs. R. F. Herrick.....	Museum specimens.....	33 00
340	" 15.	A. W. Palmer.....	Traveling expenses.....	8 85
341	" 15.	Rookwood Pottery Co. ....	Museum material.....	31 00
342	" 15.	Em Terquem.....	Books.....	27 31
343	" 15.	S. Shiga.....	Colored designs.....	10 00
344	" 15.	Bisorn Ginni.....	Museum materials.....	12 00
345	" 15.	M. Hashida.....	" .....	35 00
346	" 15.	Gurney Bros.....	Tags.....	3 00
347	" 15.	Hornstein Bros.....	Printing.....	12 25
348	" 15.	Ceylon Commissioners.....	Museum materials.....	140 36
349	" 15.	Maine Board, World's Fair Com. ....	Fish specimens.....	250 00
350	" 15.	S. J. Tellery & Co. ....	Museum materials.....	103 75
351	" 30.	C. F. Hottes.....	Traveling expense.....	8 48
352	" 30.	A. H. Baldwin.....	Specimens of fishes.....	112 80
353	" 30.	Edith A. Shattuck.....	Traveling expenses.....	13 20
354	" 30.	A. H. Revell & Co. ....	Furniture.....	115 40
355	" 30.	Marshall Field & Co. ....	Portieres, etc.....	19 12
356	" 30.	S. A. Maxwell & Co. ....	Wall paper.....	34 20
357	" 30.	The Chicago Carpet Co. ....	Carpet, etc.....	123 90
358	" 30.	P. P. Caproni Bros.....	Museum material.....	21 00
359	" 30.	Trusdale Mfg. Co. ....	Furniture.....	181 36
360	" 30.	Deratur Lumber Mfg. Co. ....	" .....	214 17
361	" 30.	H. B. Dodge & Co .....	Venetian blinds.....	115 00
362	" 30.	Bevis & Co.....	Desks.....	150 00
363	" 30.	A. H. Andrews & Co. ....	Chairs and settees.....	771 10
364	" 30.	Engene Dietzgen Co. ....	Repairs.....	7 20
365	" 30.	Selig & Kandler.....	" .....	23 40
366	" 30.	Davidson & Son.....	Slate.....	8 50
367	" 30.	W. W. Walla & Co. ....	Cement.....	9 55
368	" 30.	Pratt & Whitney Co. ....	Tapes, etc.....	9 83
369	" 30.	C. L. Shear.....	N. Y. Fungi.....	6 00
370	" 30.	Cleveland Twist Drill Co. ....	Drills.....	17 84
371	" 30.	Geneva Optical Co. ....	Microscope.....	40 00
372	" 30.	Electric Lighting and Power Co. ....	Cinders.....	1 20

*List of Warrants—Continued.*

No.	Date.	To whom.	For what.	Amount.
	1893.			
373	Nov. 30	Bausch & Lomb Optical Co.	Shades.....	\$2 96
374	" 30	Granolithic Pavement Co.	Cementwork.....	117 50
375	" 30	Robinson & Burr	Plumbing, etc.....	366 68
376	" 30	S. A. Bullard	Expenses to board and com. meeting..	77 87
377	" 30	A. Lufte & Sons	Museum material.....	9 00
378	" 30	The Java Village	" ".....	1 75
379	" 30	Jacob & Hillman	" ".....	7 50
380	" 30	Albert R. Soukami.	" ".....	1 50
381	" 30	C. W. Rolfe	Expenses to Chicago.....	19 30
382	" 30	Frank Young	Tuning piano.....	2 50
383	" 30	Joseph Macky	Sand.....	1 50
384	" 30	S. A. Forbes	Expenses.....	14 15
385	" 30	Western Union Telegraph Co.	Telegrams.....	3 21
386	" 30	Odin Coal Co.	Coal.....	732 81
387	" 30	Standard Oil Co.	Oil.....	11 48
388	" 30	Crane Co.	Waste.....	12 96
389	" 30	Columbian Hotel	Hotel bill.....	2 35
390	" 30	L. W. Faulkner	Glass, etc.....	10 57
391	" 30	J. C. Vaughan	Greenhouse stock.....	3 14
392	" 30	George E. Marshall	Record book.....	10 00
393	" 30	Illinois Christian Endeavor Union	Advertising.....	15 00
394	" 30	J. J. Snyder	Rubber stamps, etc.....	6 40
395	" 30	Office Specialty Mfg. Co.	Shannon file, etc.....	46 00
396	" 30	S. P. Sutton	Superintendent, $\frac{1}{4}$ October, 1893.	31 25
397	" 30	Whitall, Tatum & Co.	Laboratory supplies.....	28 80
398	" 30	Agricultural department.	Expenses, October, 1893.....	96 06
399	" 30	Pay-rolls of men, October, 1893.	Labor.....	400 14
400	" 30	Pay-rolls of students, October, 1893		174 98
401	" 30	T. J. Burrill	Salary for November, 1893.....	266 66
402	" 30	S. W. Shattuck	" ".....	166 66
403	" 30	E. Snyder	" ".....	166 66
404	" 30	N. C. Ricker	" ".....	166 66
405	" 30	G. E. Morrow	" ".....	108 33
406	" 30	I. O. Baker	" ".....	166 66
407	" 30	S. A. Forbes	" ".....	83 33
408	" 30	C. W. Rolfe	" ".....	166 66
409	" 30	D. McIntosh	" ".....	150 00
410	" 30	A. N. Talbot	" ".....	166 66
411	" 30	A. W. Palmer	" ".....	166 66
412	" 30	F. F. Frederick	" ".....	150 00
413	" 30	S. W. Parr	" ".....	150 00
414	" 30	H. J. Barton	" ".....	166 66
415	" 30	Chas. M. Moss	" ".....	166 66
416	" 30	D. K. Dodge	" ".....	166 66
417	" 30	F. M. McMurry	" ".....	166 66
418	" 30	L. P. Breckenridge	" ".....	166 66
419	" 30	G. W. Myers	" ".....	125 00
420	" 30	Katharine Merrill	" ".....	100 00
421	" 30	D. W. Shea	" ".....	150 00
422	" 30	W. O. Krohn	" ".....	150 00
423	" 30	Elizabeth Cooley	" ".....	133 33
424	" 30	David Kinley	" ".....	150 00
425	" 30	J. D. Bruner	" ".....	150 00
426	" 30	H. E. Summers	" ".....	100 00
427	" 30	J. M. White	" ".....	108 33
428	" 30	W. H. Van Dervoort	" ".....	125 00
429	" 30	E. J. Townsend	" ".....	116 66
430	" 30	E. K. Hall	" ".....	125 00
431	" 30	G. W. Parker	" ".....	115 00
432	" 30	W. D. Pence	" ".....	120 00
433	" 30	Maud Kimball	" ".....	30 00
434	" 30	Edith A. Shattuck	" ".....	70 00
435	" 30	T. A. Clark	" ".....	100 00
436	" 30	C. D. McLane	" ".....	100 00
437	" 30	F. D. Gardner	" ".....	41 66
438	" 30	W. E. Sandford	" ".....	75 00
439	" 30	Alice M. Barber	" ".....	60 00
440	" 30	H. S. Piatt	" ".....	80 00
441	" 30	J. D. Phillips	" ".....	75 00
442	" 30	C. A. Gunn	" ".....	75 00
443	" 30	A. H. White	" ".....	75 00
444	" 30	W. Esty	" ".....	100 00
445	" 30	E. G. Howe	" ".....	150 00
446	" 30	Anita M. Kellogg	" ".....	100 00
447	" 30	A. H. Daniels	" ".....	100 00
448	" 30	Frank Smith	" ".....	100 00
449	" 30	A. P. Winston	" ".....	100 00

*List of Warrants—Continued.*

No.	Date.	To whom.	For what.	Amount.
1893.				
450	Nov. 30	Albert Curtiss	Salary for November, 1892	\$75 00
451	" 30	B. V. Stvenson	" "	75 00
452	" 30	F. W. Rickart	" "	70 00
453	" 30	C. B. Clark	" "	75 00
454	" 30	H. E. Parker	" "	30 00
455	" 30	N. A. Weston	" "	75 00
456	" 30	W. D. Gibbs	" "	40 00
457	" 30	C. V. Millar	" "	40 00
458	" 30	C. W. Carter	" "	40 00
459	" 30	Cleaves Bennett	" "	83 33
460	" 30	Lillie Heath	" "	45 00
461	" 30	Elva Blount	" "	45 00
462	" 30	A. B. Baker	" "	70 00
463	" 30	J. Morrow	" "	60 00
464	" 30	L. H. Walden	" "	25 00
465	" 30	A. Iten	" "	25 00
466	" 30	C. A. Herme	" "	30 00
467	" 30	L. G. Lathrop	" "	40 00
468	" 30	J. A. Newlin	" "	25 00
469	" 30	M. F. Lindsey	" "	30 00
470	" 30	E. W. Justus	" "	83 33
471	" 30	H. C. Forbes	" "	83 33
472	" 30	John Marten	" "	62 50
473	" 30	Mary J. Snyder	" "	62 50
474	" 30	Charles A. Hart	" "	25 00
475	" 30	H. E. Summers	" "	62 50
476	" 30	L. P. Breckenridge	Salary, 3 mo., to date, Supt. heating	125 00
477	" 30	W. L. Pillsbury	" " " " Sec. board trust's	150 00
478	" 30	S. W. Shattuck	" " " " business agent	158 89
479	" 30	Fuller & Fuller Co.	Chemical supplies	10 00
480	" 30	E. E. Chester	Barometer and hand level	54 00
481	" 30	John Chatillon & Sons	Scales	11 25
482	" 30	R. S. Ritchie & Sons	Apparatus	13 03
483	" 30	Western Electric Co.	" "	156 60
484	" 30	Western Electric Instrument Co.	Locks, etc.	39 88
485	" 30	The Yale & Towne Mfg. Co.	Postage	20 00
486	" 30	F. L. Ellis	Tools	16 63
487	" 30	T. F. Welch & Co.	Expenses to Chicago	15 50
488	" 30	L. P. Breckenridge	Services and expenses	204 36
489	" 30	E. R. Boyer	Alcohol	43 22
490	" 30	The Morach Distillery	Expenses	40 87
491	" 30	John Marten	Postage	34 80
492	" 30	Isaac Fielding	Work in electric laboratory	22 00
493	" 30	W. Snodgrass	Freightage	65 29
494	" 30	I. C. R. R. Co.	Telegrams	10 15
495	" 30	Western Union Telegraph Co.	Freightage	103 45
496	" 30	C. C. C. & St. L. Ry Co.	Expenses	2 80
497	" 30	A. N. Talbot	Expressage	15 80
498	" 30	Pacific Express Co.	" "	37 60
499	" 30	American Express Co.	Drayage	1 25
500	" 30	E. K. Hall	Collecting insects	3 57
501	" 30	Charles Wilder	Shell bags	2 50
502	" 30	L. C. Garwood	Paper, etc.	3 92
503	" 30	A. H. Abbott & Co.	Books	70 00
504	" 30	Houghton, Mifflin & Co.	" "	77 66
505	" 30	R. Friedlander & Son	Hauling water	10 00
506	" 30	S. P. Bartlett	Manual of Conchology	6 00
507	" 30	S. R. Roberts	Science for 1894	3 50
508	" 30	W. D. C. Hodges	Balances, etc.	166 16
509	" 30	Queen & Co.	Expenses	13 32
510	" 30	H. C. Forbes	Printing, etc.	122 00
511	" 30	Pantagraph Printing Co.	Books, etc.	125 51
512	" 30	A. C. McClurg & Co.	Waste baskets	2 00
513	" 30	J. R. Greenhalgh	Salt, etc.	6 76
514	" 30	C. H. Baddeley	Hardware	62 04
515	" 30	Bullard & Gormley Co.	Repsiring	6 00
516	" 30	C. L. Miller	Subscription	153 67
517	" 30	The Illini	Advertising	3 00
518	" 30	Herald Publishing Co.	Lumber	18 27
519	" 30	J. Hamilton & Son	Chemical apparatus, etc.	9 61
520	" 30	Henry Heil Chemical Co.	Books	4 35
521	" 30	Harper & Bros.	Furniture	208 00
522	" 30	Montgomery Ward & Co.	Marble	121 10
523	" 30	Peoria Steam Marble Works	Desks	77 00
524	" 30	Decatur Lumber Mfg. Co.	Apparatus	7 20
525	" 30	Bausch & Lomb Optical Co.	Advertising	6 83
526	" 30	The Engineering News Pub. Co.	" "	" "

*List of Warrants—Continued.*

No.	Date.	To whom.	For what.	Amount.
	1893.			
527	Nov. 30.	Champaign County Herald.	Printing, etc.	\$87 30
528	" 30.	Wm. Sim Drug Co.	Curtains.	109 55
529	" 30.	Public School Pub. Co.	Advertising	6 00
530	" 30.	T. R. White, Jr.	Gas, October, 1893.	141 10
531	" 30.	M. M. Back & Co.	Iron barrow	14 10
532	" 30.	L. W. Faulkner.	Oils, etc.	50 45
533	" 30.	Library Bureau.	Pamphlet cases	8 25
534	" 30.	Office Specialty Mfg. Co.	Perforator	1 50
535	" 30.	Hubbard & Sons.	Hardware	4 90
536	" 30.	Liquid Carbonic Acid Mfg. Co.	Acid	3 00
537	" 30.	Goodyear Rubber Co.	Rubber tubing.	11 40
538	" 30.	Richards & Co., limited.	Chemical apparatus.	76 03
539	" 30.	The Ansonia Electric Co.	Lamps.	15 75
540	" 30.	Buff & Berger	Transit, etc.	264 35
541	" 30.	McIntosh Battery & Optical Co.	Apparatus.	151 27
542	" 30.	Revere Rubber Co.	Rubber hose.	18 81
543	" 30.	Office Specialty Mfg. Co.	Shannon files	5 80
544	" 30.	Crosby Steam Gauge & Valve Co.	Pressure gauge tester	50 30
545	" 30.	Rhode Island Tool Co.	Machinists' tools	5 96
546	" 30.	The Machinists' Supply Co.	Tools, belting, etc.	47 30
547	" 30.	Paul Theodore.	Lathes, tools, etc.	4 12
548	" 30.	Brown-Sharp & Co.	Gear cutter, etc.	7 25
549	" 30.	Jenney & Mundie.	Blue prints	4 59
550	" 30.	Norton Emery Wheel Co.	Emery wheels	12 13
551	" 30.	Robinson & Burr.	Plumbing and heating	919 95
552	" 30.	C. N. Clark & Co.	Stone.	6 25
553	" 30.	Keuffel & Esser Co.	C. E. instruments	213 35
554	" 30.	Michigan Agricultural College.	Iron castings	21 85
555	" 30.	The Detroit Lubricator Co.	Oil	1 00
556	" 30.	N. J. Bartlett & Co.	Books	107 27
557	" 30.	B'd M'g's Wis. W. P. Exhib.	Aquaria	65 00
558	" 30.	C. A. Hart.	Expenses	26 45
559	" 30.	Bernard Quaritch	Books	117 31
560	" 30.	C. E. Cummings.	N. A. lichens	3 85
561	" 30.	W. L. Linder.	Desks	423 00
562	" 30.	Walker & Mulliken.	Tables, etc.	110 05
563	" 30.	Ozias Riley	Clock, etc.	6 00
564	" 30.	Knowlton & Bennett.	Paints, etc.	26 25
565	" 30.	G. C. Willis.	Toweling, etc.	36 91
566	" 30.	Hugo Kahl.	Salary, July, 1893.	40 00
567	" 30.	Decatur Lumber Mfg. Co.	Desks	30 00
568	" 30.	R. S. Wilber.	Drayage	247 90
569	" 30.	George Besore.	Lumber	170 86
570	" 30.	Henry Trevett	Hardware	36 58
571	" 30.	The Gazette.	Printing.	221 15
572	" 30.	W. F. Marker	Work.	88 35
573	" 30.	Agricultural department, U. of I.	Labor and material.	795 38
574	" 30.	Architectural department, U. of I.	" " " "	1,253 51
575	" 30.	Mechanical department, U. of I.	" " " "	181 40
576	Dec. 15.	Yeager & Schultz.	Power.	10,479 22
577	" 15.	N. W. Graham.	On building contract.	21 72
578	" 15.	Alex. McLean.	Expenses to board meeting	71 25
579	" 15.	S. A. Bullard.	Expenses to board and com. meeting.	33 65
580	" 15.	N. B. Morrison.	" " " "	73 00
581	" 15.	John H. Bryant.	" " " "	22 57
582	" 15.	Henry Raab.	" " " "	20 00
583	" 15.	I. S. Raymond.	Expenses as delegate	25 70
584	" 15.	New Jersey Steel and Iron Co.	Model elevated railway.	100 00
585	" 15.	Enico Bros.	Museum material	25 00
586	" 15.	Otto Baugartel.	" " " "	7 00
587	" 15.	Farnley & Co.	Cable message	4 65
588	" 15.	Richards & Co.	Bags.	10 00
589	" 15.	The New S. Wales Ex. Com.	Museum material	300 00
590	" 15.	Russia Commission.	" " " "	3 68
591	" 15.	Jamaica Commission.	" " " "	17 92
592	" 15.	W. J. Fraser.	Packing World's Fair exhibit.	52 85
593	" 15.	George H. Heideman.	" " " "	24 16
594	" 15.	John Tierney.	Carpenter work.	22 95
595	" 15.	A. Finner.	" " " "	20 85
596	" 15.	H. E. Parker.	" " " "	26 00
597	" 15.	Charles Weeks.	Moving house.	150 00
598	" 15.	Charles Verdin.	Apparatus.	112 70
599	" 15.	Narragansett Machine Co.	Gymnasium apparatus.	97 13
600	" 15.	John Marten.	Expenses.	12 24
601	" 15.	Orr & Lockett Hardware Co.	Hardware	26 25
602	" 15.	Vacuum Oil Co.	Oil	25 50
603	" 15.	Western Electric Co.	Laboratory supplies.	97 20

*List of Warrants—Continued.*

No.	Date.	To whom.	For what.	Amount.
	1893.			
604	Dec. 15.	Pantagraph Printing Co.	Printing boxes	\$83 00
605	" 15.	Eichberg & Baer	Silk	2 40
606	" 15.	Alb'ny Prt'd Wr'p'g Paper Co.	Paper	8 00
607	" 15.	A. P. Cunningham	Chemical supplies	42 06
608	" 15.	C. H. Baddeley	Jars, etc.	8 60
609	" 15.	Lord, Owen & Co.	Vials, etc.	16 90
610	" 15.	H. E. Summers	Expenses	15 56
611	" 15.	The Hektograph Mfg. Co.	Refilling hektograph	5 50
612	" 15.	Hamilton & Russell	Hardware	2 10
613	" 15.	W. W. Walls & Co.	Lumber and lime	3 80
614	" 15.	W. C. Vosburg Mfg. Co.	Drop light	8 75
615	" 15.	Huff Bros. L'mbr' & Pl'n'g M'l Co	Desks	60 61
616	" 15.	Macomb Stoneware Co.	Clay	4 65
617	" 15.	E. G. Howe	Expenses	6 87
618	" 15.	Anita M. Kellogg	"	2 00
619	" 15.	I. M. Holland	Gravel	1 00
620	" 15.	Wabash R. R. Co.	Freightage	1 14
621	" 15.	C., C. & St. L. Ry. Co.	"	21 95
622	" 15.	I. C. R. R. Co.	"	96 27
623	" 15.	Agricultural Department, U. of I.	Expenses	100 09
624	" 15.	F. L. Bills	Postage	25 00
625	" 15.	Isaac Fielding	"	10 60
626	" 15.	T. Olson & Co.	Cement tester, etc.	142 50
627	" 15.	H. J. Green	Repairs	10 85
628	" 15.	E. C. Smith	Apparatus	25 00
629	" 15.	G. Cramer	Dry plates	13 36
630	" 15.	Machinists' Supply Co.	Tools, etc.	29 67
631	" 15.	Crosby Steam Gagne & Valve Co.	Mercury column	6 70
632	" 15.	American Steam Gauge Co.	Gauge, etc.	9 00
633	" 15.	Lodge Davis Machine & Tool Co.	Expenses of shipping machine	31 00
634	" 15.	The Aschroft Mfg. Co.	Indicators	128 00
635	" 15.	Testing Machine Co.	Apparatus	175 00
636	" 15.	Richard Kny & Co.	etc.	95 88
637	" 15.	A. Booth Packing Co.	Clams	2 75
638	" 15.	H. C. Forbes	Express charges, etc.	4 71
639	" 15.	Keuffel & Esser Co.	Cases, etc.	23 33
640	" 15.	Queen & Co.	Apparatus, etc.	145 78
641	" 15.	National Typewriter Exchange	Carbon paper	3 00
642	" 15.	C. F. Hottes	Expenses	13 85
643	" 15.	Western Union Telegraph Co.	Telegrams	3 74
644	" 15.	Library Bureau	Library supplies	17 42
645	" 15.	A. C. McClurg & Co.	Books and stationery	107 93
646	" 15.	Fuller & Fuller Co.	Apparatus and supplies	122 77
647	" 15.	D. L. Roots	Mill work	113 92
648	" 15.	McIntosh Battery & Optical Co.	Laboratory supplies	58 53
649	" 15.	Pay-rl of m'n & w'm'n, Nov., 1893	Labor	396 31
650	" 15.	Pay-roll of students, Nov., 1893	"	158 68
651	" 30.	T. J. Burrill	Salary for December, 1893.	266 66
652	" 30.	S. W. Shattuck	"	166 66
653	" 30.	E. Snyder	"	166 66
654	" 30.	N. C. Ricker	"	166 66
655	" 30.	G. E. Morrow	"	108 33
656	" 30.	I. O. Baker	"	166 66
657	" 30.	S. A. Forbes	"	83 33
658	" 30.	C. W. Roife	"	166 66
659	" 30.	D. McIntosh	"	150 00
660	" 30.	A. N. Talbot	"	166 66
661	" 30.	A. W. Palmer	"	166 66
662	" 30.	F. F. Frederick	"	150 00
663	" 30.	S. W. Parr	"	150 00
664	" 30.	H. J. Barton	"	166 66
665	" 30.	Chas. M. Moss	"	166 66
666	" 30.	D. K. Dodge	"	166 66
667	" 30.	F. M. McMurry	"	166 66
668	" 30.	L. P. Breckenridge	"	166 66
669	" 30.	G. W. Myers	"	125 00
670	" 30.	Katharine Merrill	"	100 00
671	" 30.	D. W. Shea	"	150 00
672	" 30.	W. O. Krohn	"	150 00
673	" 30.	Elizabeth C. Cooley	"	133 33
674	" 30.	David Kinley	"	150 00
675	" 30.	J. D. Bruner	"	150 00
676	" 30.	H. E. Summers	"	100 00
677	" 30.	J. M. White	"	108 33
678	" 30.	W. H. Van Dervoort	"	125 00
679	" 30.	E. J. Townsend	"	116 66
680	" 30.	E. K. Hall	"	125 00



*List of Warrants—Continued.*

No.	Date.	To whom.	For what	Amount.
	1893.			
681	Dec. 30.	G. W. Parker.....	Salary for December, 1893.....	\$115 00
682	" 30.	W. D. Pence.....	" " " " " " " " " " " "	120 00
683	" 30.	Clara Maude Kimball.....	" " " " " " " " " " " "	30 00
684	" 30.	Edith A. Shattuck.....	" " " " " " " " " " " "	70 00
685	" 30.	T. A. Clark.....	" " " " " " " " " " " "	100 00
686	" 30.	C. D. McLane.....	" " " " " " " " " " " "	100 00
687	" 30.	F. D. Gardner.....	" " " " " " " " " " " "	41 66
688	" 30.	W. E. Sandford.....	" " " " " " " " " " " "	75 00
689	" 30.	Alice M. Barber.....	" " " " " " " " " " " "	60 00
690	" 30.	H. S. Piatt.....	" " " " " " " " " " " "	80 00
691	" 30.	J. D. Phillips.....	" " " " " " " " " " " "	75 00
692	" 30.	C. A. Gunn.....	" " " " " " " " " " " "	75 00
693	" 30.	A. H. White.....	" " " " " " " " " " " "	75 00
694	" 30.	W. Esty.....	" " " " " " " " " " " "	100 00
695	" 30.	E. G. Howe.....	" " " " " " " " " " " "	150 00
696	" 30.	Anita M. Kellogg.....	" " " " " " " " " " " "	100 00
697	" 30.	A. H. Daniels.....	" " " " " " " " " " " "	100 00
698	" 30.	Frank Smith.....	" " " " " " " " " " " "	100 00
699	" 30.	A. P. Winston.....	" " " " " " " " " " " "	100 00
700	" 30.	Albert Curtiss.....	" " " " " " " " " " " "	75 00
701	" 30.	B. V. Swenson.....	" " " " " " " " " " " "	75 00
702	" 30.	B. C. Vial.....	" " " " " " " " " " " "	30 00
703	" 30.	C. B. Clark.....	" " " " " " " " " " " "	75 00
704	" 30.	H. E. Parker.....	" " " " " " " " " " " "	30 00
705	" 30.	N. A. Weston.....	" " " " " " " " " " " "	75 00
706	" 30.	W. D. Gibbs.....	" " " " " " " " " " " "	40 00
707	" 30.	C. V. Millar.....	" " " " " " " " " " " "	40 00
708	" 30.	C. W. Carter.....	" " " " " " " " " " " "	40 00
709	" 30.	C. Bennett.....	" " " " " " " " " " " "	83 33
710	" 30.	Lillie Heath.....	" " " " " " " " " " " "	45 00
711	" 30.	Elva Blount.....	" " " " " " " " " " " "	45 00
712	" 30.	A. B. Baker.....	" " " " " " " " " " " "	70 00
713	" 30.	J. Morrow.....	" " " " " " " " " " " "	60 00
714	" 30.	L. H. Waldon.....	" " " " " " " " " " " "	25 00
715	" 30.	A. Iten.....	" " " " " " " " " " " "	25 00
716	" 30.	C. A. Hermé.....	" " " " " " " " " " " "	30 00
717	" 30.	L. G. Lathrop.....	" " " " " " " " " " " "	30 00
718	" 30.	J. A. Newlin.....	" " " " " " " " " " " "	40 00
719	" 30.	M. F. Lindsey.....	" " " " " " " " " " " "	30 00
720	" 30.	E. W. Justus.....	" " " " " " " " " " " "	35 00
721	" 30.	J. M. Doughty.....	" " " " " " " " " " " "	30 00
722	" 30.	H. C. Forbes.....	" " " " " " " " " " " "	83 33
723	" 30.	John Marten.....	" " " " " " " " " " " "	83 33
724	" 30.	Mary J. Snyder.....	" " " " " " " " " " " "	62 50
725	" 30.	Chas. A. Hart.....	" " " " " " " " " " " "	62 50
726	" 30.	H. E. Summers.....	" " " " " " " " " " " "	25 00
727	" 30.	Bacon, Mittendorf & Hall.....	Hat rack.....	15 00
728	" 30.	J. W. Ford.....	Labor.....	2 00
729	" 30.	Entomological News.....	Subscription, 1894.....	1 00
730	" 30.	Bevis & Co.....	Book case.....	244 00
731	" 30.	C. T. Busch.....	Chairs, etc.....	23 25
732	" 30.	C. J. Boyer.....	Books.....	3 50
733	" 30.	E. H. Sargent & Co.....	Bottles.....	20 60
734	" 30.	W. D. Conklin.....	Labor.....	13 20
735	" 30.	Mrs. J. E. Hart.....	Making insect nets.....	1 80
736	" 30.	Harvey Argo.....	Labor.....	3 15
737	" 30.	John P. Coyle.....	Expenses.....	60 00
738	" 30.	R. H. Thurston.....	" " " " " " " " " " " "	62 98
739	" 30.	Chas. Knowles & Co.....	Customs entry.....	7 50
740	" 30.	K. Kono.....	Museum materials.....	25 50
741	" 30.	M. Takito.....	" " " " " " " " " " " "	16 45
742	" 30.	Osaka Exhibition Association.....	" " " " " " " " " " " "	23 50
743	" 30.	G. E. Sobrero.....	" " " " " " " " " " " "	25 00
744	" 30.	Boit Frere.....	" " " " " " " " " " " "	7 85
745	" 30.	Tokio Corporation.....	" " " " " " " " " " " "	23 00
746	" 30.	Kyoto Exhibition Association.....	" " " " " " " " " " " "	20 25
747	" 30.	J. M. White.....	Expenses, return of exhibits.....	317 65
748	" 30.	D. H. Chester.....	" " " " " " " " " " " "	118 58
749	" 30.	W. H. Forbes.....	Salary and packing exhibit.....	174 41
750	" 30.	I. H. Kapp.....	Salary, 2½ months to date.....	325 00
751	" 30.	The Dickson Mfg. Co.....	Moulding, rails, etc.....	179 17
752	" 30.	Fuller & Fuller Co.....	Glass, etc.....	38 10
753	" 30.	Rand, McNally & Co.....	Maps.....	42 00
754	" 30.	McIntosh Battery & Optical Co.....	Apparatus.....	2 30
755	" 30.	Bevis & Co.....	Furniture, etc.....	82 55
756	" 30.	John O'Neil & Sons.....	Lead pipe, etc.....	107 64
757	" 30.	C. N. Clark & Co.....	Cutting stone.....	3 20

*List of Warrants--Continued.*

No.	Date.	To whom.	For what.	Amount.
	1893.			
758	Dec. 30.	G. E. Stechert .....	Relief map .....	\$18 75
759	" 30.	W. D. Pence .....	Expenses .....	21 55
760	" 30.	Pitt & Scott's Agency .....	Customs charges, etc. ....	11 20
761	" 30.	Edwards & Co. ....	Advertising .....	9 60
762	" 30.	Peoria Steam Marble Works .....	Tile .....	7 00
763	" 30.	T. J. White, Jr. ....	Gas, November, 1893 .....	150 40
764	" 30.	C. J. Sabin .....	Hard coal .....	5 00
765	" 30.	J. D. Phillips .....	Lettering diplomas .....	8 00
766	" 30.	Yale & Towne Mfg. Co. ....	Keys .....	4 97
767	" 30.	J. A. Fay & Egan Co. ....	Belting .....	15 88
768	" 30.	L. W. Faulkner & Co. ....	Oils, etc. ....	2 85
769	" 30.	Maxwell & Mollet .....	Shellac, brushes, etc. ....	12 68
770	" 30.	Eimer & Amend .....	Apparatus and supplies .....	10 38
771	" 30.	A. H. Revell & Co. ....	Book case .....	16 50
772	" 30.	Eugene Dietzgen & Co. ....	Repairs on instruments .....	10 35
773	" 30.	Kuffel & Esser Co. ....	Protractor .....	7 75
774	" 30.	The <i>Illini</i> .....	Advertising, etc. ....	22 52
775	" 30.	G. C. Miller .....	Blue prints .....	15 60
776	" 30.	G. L. Marehand .....	Services looking over accounts .....	450 00
777	" 30.	J. E. Armstrong .....	Expenses .....	12 95
778	" 30.	N. B. Morrison .....	" .....	15 00
779	" 30.	Royal Norwegian exhibit .....	Museum materials .....	61 00
780	" 30.	J. Kopp .....	" .....	20 50
781	" 30.	F. M. McKay .....	Expenses to board and Com. meeting .....	33 30
782	" 30.	F. L. Bills .....	Postage .....	15 00
783	" 30.	W. H. Van Dervoort .....	Expenses .....	3 20
784	" 30.	J. Ostrand .....	Drayage .....	12 75
785	" 30.	Alfred H. White .....	Expenses .....	3 88
786	" 30.	Katharine Merrill .....	" .....	1 45
787	" 30.	Western Union Telegraph Co. ....	Telegraph charges .....	4 40
788	" 30.	Pacific Express Co. ....	Expressage .....	19 50
789	" 30.	American Express Co. ....	" .....	4 86
790	" 30.	Isaac Fielding .....	Postage .....	5 00
791	" 30.	Bernard Quaritch .....	Zoological Record, 1892 .....	6 12
792	" 30.	K. F. Kochler's Antiquarium .....	Books .....	8 06
793	" 30.	Bausch & Lomb Optical Co. ....	Repairs .....	2 00
794	" 30.	Robinson & Burr .....	Repairs, etc. ....	56 41
795	" 30.	Maltby & Wallace Co. ....	Pipe, fittings, etc. ....	52 61
796	" 30.	T. H. Trevett .....	Hardware .....	25 15
797	" 30.	Geo. Beore .....	Lumber .....	454 14
798	" 30.	Henry Trevett .....	Hardware, etc. ....	88 98
799	" 30.	D. H. Lloyd & Son .....	Stationery, etc. ....	31 80
800	" 30.	A. C. McClurg & Co. ....	Books .....	54 51
801	" 30.	Henry J. Green .....	Barometer, etc. ....	41 95
802	" 30.	E. W. Blatchford & Co. ....	Lead .....	7 08
803	" 30.	General Electric Company .....	Motor .....	100 00
804	" 30.	The Ansonia Electric Co. ....	Oil filters, etc. ....	25 90
805	" 30.	Page Belting Co. ....	Belt .....	18 81
806	" 30.	McIntosh Battery & Optical Co. ....	Dials .....	2 44
807	" 30.	D. L. Roots & Son .....	Sash and glass .....	7 20
808	" 30.	Richards & Co., limited .....	Apparatus .....	30 19
809	" 30.	Western Electric Co. ....	Rubber rods .....	4 80
810	" 30.	Queen & Co. ....	Apparatus .....	308 00
811	" 30.	Electric Apparatus Co. ....	Apparatus .....	95 38
812	" 30.	Orr & Locket Hardware Co. ....	Tools, etc. ....	84 95
813	" 30.	Testing Machine Co. ....	Extensometers .....	128 00
814	" 30.	G. C. Willis .....	Room furnishing, etc. ....	13 07
815	" 30.	W. H. Beckwith .....	Floor brush .....	5 65
816	" 30.	Hubbard & Sons .....	Hardware .....	1 95
817	" 30.	Crowder Bros .....	Rocking grates .....	16 80
818	" 30.	Crosby Steam Gauge & Valve Co. ....	Lubricator .....	5 00
819	" 30.	A. P. Cunningham & Sons .....	Drugs .....	4 20
820	" 30.	Am. Architect, Bldg. & News Co. ....	Subscription .....	25 00
821	" 30.	Yeager & Schultz .....	Amount due on building contract .....	13,739 65
822	" 30.	F. L. Bills .....	Postage .....	20 00
823	" 30.	Central Union Telephone Co. ....	Rent of Inst., Jan. 1, March 31 .....	15 00
824	" 30.	James M. White .....	Expenses in packing exhibit .....	21 98
825	" 30.	H. C. Forbes .....	Petty expenses .....	2 50
	1894.			
826	Jan. 15.	James O'Neil Sons .....	Plumbing .....	7 95
827	" 15.	Bevis & Co. ....	Cases .....	187 00
828	" 15.	Robinson & Burr .....	Electrical fittings, etc. ....	223 11
829	" 15.	Richards & Co., limited .....	Balance .....	95 31
830	" 15.	The Wells Glass Co. ....	Glass .....	35 00
831	" 15.	J. M. White .....	Labor and material for designs .....	40 00
832	" 15.	J. W. Freund .....	Instruments and piano .....	38 05
833	" 15.	Electric Appliance Co. ....	Apparatus .....	7 72
834	" 15.	Geneva Optical Co. ....	Laboratory supplies .....	4 32

*List of Warrants—Continued.*

No.	Date.	To whom.	For whom.	Amount.
	1894.			
835	Jan. 15	Fauth & Co.	Level of precision.	255 75
836	" 15	W. & L. E. Gurley	Case for level, etc.	1 61
837	" 15	Queen & Co.	Microscope.	780 50
838	" 15	The Ansonia Electric Co.	Rubber rods.	11 93
839	" 15	U. S. Express Co.	Expressage.	2 07
840	" 15	L. W. Faulkner & Co.	Cartage.	2 00
841	" 15	Lydia M. Hart	Work on drawings and chart.	30 03
842	" 15	J. E. Armstrong	Expenses.	31 83
843	" 15	W. L. Steele	Salary and expenses.	16 05
844	" 15	Edward G. Howe	Expenses.	4 05
845	" 15	W. O. Krohn	Charts, supplies.	8 30
846	" 15	C., C., & St. L. R'y Co.	Freightage.	4 59
847	" 15	Wabash R. R. Co.	"	3 02
848	" 15	Illinois Central R. R. Co.	"	146 07
849	" 15	Pay roll of men, Dec., 1393.	Labor.	505 97
850	" 15	Pay roll of students, Dec., 1893.	"	242 81
851	" 31	T. J. Burrill	Salary for Jan., 1894.	266 66
852	" 31	S. M. Shattuck	"	166 66
853	" 31	E. Snyder	"	166 66
854	" 31	N. C. Ricker	"	166 66
855	" 31	G. E. Morrow	"	108 33
856	" 31	I. O. Baker	"	166 66
857	" 31	S. A. Forbes	"	83 33
858	" 31	C. W. Rolfe	"	166 66
859	" 31	D. McIntosh	"	150 00
860	" 31	A. N. Talbot	"	166 66
861	" 31	A. W. Palmer	"	166 66
862	" 31	F. F. Frederick	"	150 00
863	" 31	S. W. Parr	"	150 00
864	" 31	H. J. Barton	"	166 66
865	" 31	Chas. M. Moss	"	166 66
866	" 31	D. K. Dodge	"	166 66
867	" 31	F. M. McMurtry	"	166 66
868	" 31	L. P. Breckenridge	"	166 66
869	" 31	G. W. Myers	"	125 00
870	" 31	Katharine Merrill	"	100 00
871	" 31	D. W. Shea	"	150 00
872	" 31	W. G. Krohn	"	150 00
873	" 31	Elizabeth Cooley	"	133 33
874	" 31	David Kinley	"	150 00
875	" 31	J. D. Bruner	"	150 00
876	" 31	H. E. Summers	"	100 00
877	" 31	J. M. White	"	108 33
878	" 31	W. H. Van Dervoort	"	125 00
879	" 31	E. J. Townsend	"	116 66
880	" 31	E. K. Hall	"	125 00
881	" 31	G. W. Parker	"	115 00
882	" 31	W. D. Pence	"	120 00
883	" 31	Maude Kimball	"	30 00
884	" 31	Edith A. Shattuck	"	70 00
885	" 31	T. A. Clark	"	100 00
886	" 31	C. D. McLane	"	100 00
887	" 31	F. D. Gardner	"	41 66
888	" 31	W. E. Sandford	"	75 00
889	" 31	Alice M. Barber	"	60 00
890	" 31	H. S. Piatt	"	80 00
891	" 31	J. D. Phillips	"	75 00
892	" 31	C. A. Gunn	"	75 00
893	" 31	A. H. White	"	75 00
894	" 31	W. Esly	"	100 00
895	" 31	E. G. Howe	"	150 00
896	" 31	Anita M. Kellogg	"	100 00
897	" 31	A. H. Daniels	"	100 00
898	" 31	Frank Smith	"	100 00
899	" 31	A. P. Winston	"	100 00
900	" 31	Albert Curtiss	"	75 00
901	" 31	B. V. Swenson	"	75 00
902	" 31	L. W. Peabody	"	70 00
903	" 31	C. B. Clark	"	75 00
904	" 31	H. E. Parker	"	30 00
905	" 31	N. A. Weston	"	75 00
906	" 31	W. D. Gibbs	"	40 00
907	" 31	C. V. Millar	"	40 00
908	" 31	C. W. Carter	"	40 00
909	" 31	Henry Jones	"	50 00
910	" 31	C. Bennett	"	83 33
911	" 31	Lillie Heath	"	45 00
912	" 31	Elva Blount	"	45 00

*List of Warrants—Continued.*

No.	Date.	To whom.	For what.	Amount.
	1894.			
913	Jan. 31	A. B. Baker.	Salary for January, 1894.	70 00
914	" 31	Joe Morrow.	" "	60 00
915	" 31	L. H. Walden.	" "	25 00
916	" 31	A. Iten.	" "	25 00
917	" 31	C. A. Herme.	" "	30 00
918	" 31	L. G. Lathrop.	" "	30 00
919	" 31	J. A. Newlin.	" "	40 00
920	" 31	M. F. Lindsey.	" "	30 00
921	" 31	E. W. Justus.	" "	35 00
922	" 31	J. M. Doughty.	" "	30 00
923	" 31	H. C. Forbes.	" "	83 33
924	" 31	John Marten.	" "	83 33
925	" 31	Mary J. Snyder.	" "	62 50
926	" 31	Chas. A. Hart.	" "	62 50
927	" 31	H. E. Summers.	" "	25 00
928	" 31	I. H. Rapp.	" "	130 00
929	" 31	McIntosh Battery & Optical Co.	Steel cylinders.	51 25
930	" 31	Joseph Jastrom.	Apparatus.	28 10
931	" 31	T. R. White, Jr.	Gas, December, 1893.	95 20
932	" 31	Union Mfg. Co.	Water, three months, April 1, 1894.	125 00
933	" 31	Western Bank Note & Eng. Co.	Diplomas.	62 50
934	" 31	G. E. Marshall & Co.	Blank book.	4 00
935	" 31	Richard Kny.	Burettes.	17 75
936	" 31	Champaign Co. Herald.	Printing.	64 45
937	" 31	Kenyon News & Postal Sub. Co.	Subscriptions.	456 00
938	" 31	G. E. Stechert.	Books.	25 71
939	" 31	Geneva Optical Co.	Apparatus.	35 00
940	" 31	J. J. Van Valkenburgh.	Photographs.	7 00
941	" 31	L. W. Woodruff.	Books.	20 00
942	" 31	Bevis & Co.	Tables.	27 00
943	" 31	Hubbard & Sons.	Hardware, etc.	11 50
944	" 31	Webster Mfg. Co.	Chairs.	185 72
945	" 31	D. L. Roots & Sons.	Boxes.	13 00
946	" 31	Amberg File & Index Co.	Handle pad.	2 00
947	" 31	The Bishop Babcock Co.	Pump and tank.	38 00
948	" 31	Henry Trevett.	Hardware, etc.	161 78
949	" 31	Maltby & Wallace Co.	Pipe and fittings.	104 86
950	" 31	Geo. Besore.	Lumber.	156 12
951	" 31	Odin Coal Co.	Coal.	638 00
952	" 31	Orr & Lockett Hardware Co.	Hardware.	7 83
953	" 31	Hydron Bros.	Lumber.	56 51
954	" 31	Richard Kny & Co.	Chemical apparatus.	19 36
955	" 31	E. Miller & Son.	Crash.	3 50
956	" 31	The Crane Co.	Pipe and fittings.	45 86
957	" 31	Western Electric Co.	Wire.	6 32
958	" 31	J. C. Sedgwick.	Lockers.	50 00
959	" 31	E. C. Meacham Arms Co.	Apparatus.	22 30
960	" 31	Stearns Lime & Stone Co.	Plaster.	2 25
961	" 31	John W. Hills.	Slides.	41 00
962	" 31	Evansville Oil Co.	Oil.	36 70
963	" 31	Segar & Cramer.	Museum material.	14 00
964	" 31	Dr. Kalien.	" "	87 00
965	" 31	F. M. McMurtry.	Expenses.	33 10
966	" 31	Adams Express Co.	Vase.	29 32
967	" 31	J. R. Holder.	Labor.	5 00
968	" 31	Imperial Comm. of Persia.	Museum material.	49 00
969	" 31	American Express Co.	Expressage.	45 65
970	" 31	Agricultural department U. of I.	Expenses.	51 85
971	" 31	C. H. Elliott.	Plastering farm house.	17 75
972	" 31	D. McIntosh.	Expenses to Dixon.	20 54
973	" 31	E. H. Farrington.	" "	22 79
974	" 31	G. E. Morrow.	" " etc.	31 66
975	" 31	W. J. Fraser.	Salary, 1 month, to Jan. 11, 1894.	50 00
976	" 31	Eugene Dietzgen & Co.	Surveying implements.	49 57
977	" 31	Mahn & Co.	Extensometer.	100 00
978	" 31	Testing Machine Co.	Limes for testing machine.	5 00
979	" 31	W. F. & J. Barnes & Co.	Drill.	70 00
980	" 31	Emil Greiner.	Apparatus.	22 35
981	" 31	McIntosh Battery & Optical Co.	Keys, etc.	15 25
982	" 31	E. W. Blatchford & Co.	Lead.	2 65
983	" 31	Electric Appliance Co.	Apparatus.	27 75
984	" 31	Brown & Sharpe Mfg. Co.	Tools.	1 10
985	" 31	E. O. Vaile.	Directory.	1 00
986	" 31	A. C. McClurg & Co.	Apparatus, etc.	10 48
987	" 31	Ohio Stamp Works.	Stamp.	2 01
988	" 31	Queen & Co.	Apparatus.	107 30
989	" 31	Henry Heil Chem. Co.	Supplies for laboratory.	25 05

*List of Warrants—Continued.*

No.	Date.	To whom.	For what.	Amount.
	1893.			
990	May 31.	J. A. Fay & Egan Co.	Pulley.	\$3 45
991	" 31.	Geo. Besore.	Lumber.	47 33
992	" 31.	Ansonia Electric Co.	Oil tank.	8 37
993	" 31.	Goodyear Rubber Co.	Rubber tubing.	4 80
994	" 31.	Western Union Telegraph Co.	Telegrams.	2 55
995	" 31.	F. L. Bills.	Postage.	26 25
996	" 31.	Central Union Telephone Co.	Rent for instruments.	6 00
997	" 31.	Crosby Steam Gauge & Valve Co.	Gauge.	3 50
998	" 31.	R. S. Wilber.	Freight and dray charges.	12 39
999	" 31.	J. B. McCann & Son.	Feed for fish.	1 85
1000	" 31.	T. H. Trevett.	Hardware.	1 35
1001	Feb. 15.	Yeager & Schultz.	For account of building contract.	8,796 60
1002	" 15.	N. W. Graham.	Traveling expenses.	25 09
1003	" 15.	H. Chester.	Hack hire.	3 00
1004	" 15.	Joseph Park.	Feed.	13 68
1005	" 15.	A. Iten.	Washing towels.	2 62
1006	" 15.	F. L. Bills.	Postage.	25 00
1007	" 15.	G. E. Morrow.	Expenses paid.	2 50
1008	" 15.	W. L. Steele.	Band music.	5 75
1009	" 15.	F. B. Schumacher.	Specimens for cabinets.	10 00
1010	" 15.	C. W. Ayers.	" "	25 00
1011	" 15.	Royal Norwegian Comm.	" "	10 00
1012	" 15.	W. O. Krohn.	Laboratory supplies.	8 45
1013	" 15.	Wabash R. R. Co.	Freightage.	1 10
1014	" 15.	C. C. C. St. L. Ry. Co.	" "	22 62
1015	" 15.	I. C. R. R. Co.	" "	16 43
1016	" 15.	Pacific Express Co.	" "	8 35
1017	" 15.	American Express Co.	" "	34 43
1018	" 15.	S. A. Forbes.	Expenses.	22 36
1019	" 15.	Lydia M. Hart.	Drawing, etc.	40 30
1020	" 15.	H. C. Forbes.	Laboratory expenses.	2 65
1021	" 15.	E. H. Sargent & Co.	supplies.	14 94
1022	" 15.	James Rowe.	Meat for fish.	1 65
1023	" 15.	S. W. Shattuck.	Petty expenses, 3 months, Nov. 30, '93.	41 00
1024	" 15.	Pay-roll of men, Jan., '94.	Labor.	369 25
1025	" 15.	Pay-roll of students, Jan. '94.	" "	318 00
1026	" 15.	Howe & Brown & Co.	Steel.	22 96
1027	" 15.	Orr & Lockett Hardware Co.	Hardware.	86 27
1028	" 15.	The Smith Premier Typewriter Co.	Ribbons.	1 00
1029	" 15.	J. T. Slocomb & Co.	Center drill.	3 00
1030	" 15.	T. H. Trevett.	Hardware.	11 55
1031	" 15.	H. Swannell.	Paper.	3 75
1032	" 15.	Fuller & Fuller Co.	Glass, etc.	21 27
1033	" 15.	Richards & Co., Ltd.	Chemical apparatus.	4 00
1034	" 15.	Queen & Co.	" "	208 98
1035	" 15.	A. H. Revell & Co.	Burlaps.	2 00
1036	" 15.	Ozias Riley.	Repairing clock.	6 00
1037	" 15.	Eugene Dietzgen & Co.	Surveying instruments.	9 20
1038	" 15.	Riehlé Brothers.	Apparatus.	15 00
1039	" 15.	A. S. Alvi Company.	Protractors.	57 75
1040	" 15.	Kenffel & Esser Co.	Leveling rod.	33 41
1041	" 15.	G. A. Gray & Co.	Brace for planer.	7 80
1042	" 15.	Norton Emery Wheel Co.	Wheels.	6 00
1043	" 15.	Manning, Maxwell & Moore.	Center grinder.	12 00
1044	" 15.	Western Electric Co.	Wire.	14 40
1045	" 15.	Bausch & Lomb Optical Co.	Apparatus.	4 05
1046	" 15.	Soule Photograph Co.	Photographs.	5 84
1047	" 15.	E. H. Sargent & Co.	Chemical apparatus.	30 81
1048	" 15.	East'n Electric Light & Stor. Bat. Co.	Storage battery.	41 00
1049	" 15.	Fairbanks, Morse & Co.	Scales.	15 75
1050	" 15.	McIntosh Battery & Optical Co.	Apparatus.	18 22
1051	" 28.	T. J. Burrill.	Salary for February, 1893.	266 66
1052	" 28.	S. W. Shattuck.	" "	166 66
1053	" 28.	E. Snyder.	" "	166 66
1054	" 28.	N. C. Ricker.	" "	166 66
1055	" 28.	G. E. Morrow.	" "	108 33
1056	" 28.	I. O. Baker.	" "	166 66
1057	" 28.	S. A. Forbes.	" "	83 33
1058	" 28.	C. W. Rolfe.	" "	166 66
1059	" 28.	D. McIntosh.	" "	150 00
1060	" 28.	A. N. Talbot.	" "	166 66
1061	" 28.	A. W. Palmer.	" "	166 66
1062	" 28.	F. F. Frederick.	" "	150 00
1063	" 28.	S. W. Parr.	" "	150 00
1064	" 28.	H. J. Barton.	" "	166 66
1065	" 28.	Chas. M. Moss.	" "	166 66
1066	" 28.	D. K. Dodge.	" "	166 66

*List of Warrants—Continued.*

No.	Date.	To whom.	For what.	Amount.
	1893.			
1067	Feb. 28.	F. M. McMurry.....	Salary for February, 1894.....	166 66
1068	" 28.	L. P. Breckenridge.....	" " " " " " " " " " " "	166 66
1069	" 28.	G. W. Myers.....	" " " " " " " " " " " "	125 00
1070	" 28.	Katharine Merrill.....	" " " " " " " " " " " "	100 00
1071	" 28.	D. W. Shea.....	" " " " " " " " " " " "	150 00
1072	" 28.	W. O. Krohn.....	" " " " " " " " " " " "	150 00
1073	" 28.	Elizabeth Cooley.....	" " " " " " " " " " " "	133 33
1074	" 28.	David Kinley.....	" " " " " " " " " " " "	150 00
1075	" 28.	J. D. Bruner.....	" " " " " " " " " " " "	150 00
1076	" 28.	H. E. Summers.....	" " " " " " " " " " " "	100 00
1077	" 28.	J. M. White.....	" " " " " " " " " " " "	108 33
1078	" 28.	W. H. Van Dervoort.....	" " " " " " " " " " " "	125 00
1079	" 28.	E. J. Townsend.....	" " " " " " " " " " " "	116 66
1080	" 28.	E. K. Hall.....	" " " " " " " " " " " "	125 00
1081	" 28.	G. W. Parker.....	" " " " " " " " " " " "	115 00
1082	" 28.	W. D. Pence.....	" " " " " " " " " " " "	120 00
1083	" 28.	Maud Kimball.....	" " " " " " " " " " " "	30 00
1084	" 28.	Edith A. Shattuck.....	" " " " " " " " " " " "	70 00
1085	" 28.	T. A. Clark.....	" " " " " " " " " " " "	100 00
1086	" 28.	C. D. McLane.....	" " " " " " " " " " " "	100 00
1087	" 28.	F. D. Gardner.....	" " " " " " " " " " " "	41 66
1088	" 28.	W. E. Sandford.....	" " " " " " " " " " " "	75 00
1089	" 28.	Alice M. Barber.....	" " " " " " " " " " " "	60 00
1090	" 28.	H. S. Piatt.....	" " " " " " " " " " " "	80 00
1091	" 28.	J. D. Phillips.....	" " " " " " " " " " " "	75 00
1092	" 28.	Chas. A. Gunn.....	" " " " " " " " " " " "	75 00
1093	" 28.	A. H. White.....	" " " " " " " " " " " "	75 00
1094	" 28.	W. Esty.....	" " " " " " " " " " " "	100 00
1095	" 28.	G. E. Howe.....	" " " " " " " " " " " "	150 00
1096	" 29.	Anita M. Kellogg.....	" " " " " " " " " " " "	100 00
1097	" 28.	A. H. Daniels.....	" " " " " " " " " " " "	100 00
1098	" 28.	Frank Smith.....	" " " " " " " " " " " "	100 00
1099	" 28.	A. P. Winston.....	" " " " " " " " " " " "	100 00
1100	" 28.	Albert Curless.....	" " " " " " " " " " " "	75 00
1101	" 28.	B. V. Swenson.....	" " " " " " " " " " " "	75 00
1102	" 28.	L. W. Peabody.....	" " " " " " " " " " " "	70 00
1103	" 28.	C. B. Clark.....	" " " " " " " " " " " "	75 00
1104	" 28.	H. E. Parker.....	" " " " " " " " " " " "	30 00
1105	" 28.	N. A. Weston.....	" " " " " " " " " " " "	75 00
1106	" 28.	W. D. Gibbs.....	" " " " " " " " " " " "	40 00
1107	" 28.	C. V. Millar.....	" " " " " " " " " " " "	40 00
1108	" 28.	C. W. Carter.....	" " " " " " " " " " " "	40 00
1109	" 28.	Henry Jones.....	" " " " " " " " " " " "	50 00
1110	" 28.	C. Bennett.....	" " " " " " " " " " " "	83 33
1111	" 28.	Lillie Heath.....	" " " " " " " " " " " "	45 00
1112	" 28.	Elva Blount.....	" " " " " " " " " " " "	45 00
1113	" 28.	A. B. Baker.....	" " " " " " " " " " " "	70 00
1114	" 28.	J. Morrow.....	" " " " " " " " " " " "	60 00
1115	" 28.	L. H. Walden.....	" " " " " " " " " " " "	25 00
1116	" 28.	A. Iten.....	" " " " " " " " " " " "	25 00
1117	" 28.	C. A. Herme.....	" " " " " " " " " " " "	30 00
1118	" 28.	L. G. Lathrop.....	" " " " " " " " " " " "	30 00
1119	" 28.	J. A. Newlin.....	" " " " " " " " " " " "	40 00
1120	" 28.	M. F. Lindsey.....	" " " " " " " " " " " "	30 00
1121	" 28.	E. W. Justus.....	" " " " " " " " " " " "	35 00
1122	" 28.	J. M. Doughty.....	" " " " " " " " " " " "	30 00
1123	" 28.	H. C. Forbes.....	" " " " " " " " " " " "	83 33
1124	" 28.	John Marten.....	" " " " " " " " " " " "	83 33
1125	" 28.	Mary J. Snyder.....	" " " " " " " " " " " "	62 50
1126	" 28.	Chas. A. Hart.....	" " " " " " " " " " " "	62 50
1127	" 28.	H. E. Summers.....	" " " " " " " " " " " "	25 00
1128	" 28.	T. R. White, Jr.....	Gas, January, 1894.....	124 00
1129	" 28.	I. H. Rapp.....	Salary, February, 1894.....	130 60
1130	" 28.	W. L. Pillsbury.....	Salary as secretary, 3 mo. to date.....	125 00
1131	" 28.	S. W. Shattuck.....	Salary business agent, 3 mo. to date.....	150 00
1132	" 28.	C. J. Sabin.....	Coal.....	8 00
1133	" 28.	Price & Sandford.....	Laboratory supplies.....	2 65
1134	" 28.	L. P. Breckenridge.....	Expenses.....	17 24
1135	" 28.	Richards & Co.....	Compass.....	5 63
1136	" 28.	I. O. Baker.....	Expenses.....	7 88
1137	" 26.	H. E. Summers.....	" " " " " " " " " " " "	31 26
1138	" 28.	Webster Mtg. Co.....	Laboratory trays.....	12 50
1139	" 28.	Pantagraph Printing Co.....	Printing and binding.....	62 15
1140	" 28.	A. P. Cunningham.....	Paper and subscription.....	7 01
1141	" 28.	Wm. Mieback & Co.....	Net frames.....	1 65
1142	" 28.	The Cassino Art Co.....	Subscription.....	2 09
1143	" 28.	A. A. Beal & Son.....	Plates.....	80 00

*List of Warrants—Continued.*

No.	Date.	To whom.	For what.	Amount.
	1894.			
1144	Feb. 28	Hubbard & Sons	Speaking tubes	\$30 60
1145	" 28	D. H. Lloyd & Sons	Stationery	11 05
1146	" 28	Hine Eliminator Co.	Eliminators	22 50
1147	" 28	Engineering News Pub. Co.	Advertising	6 88
1148	" 28	Jones & Laughlin	Steel	4 54
1149	" 28	Newark Machine Tool Works	Vice jaws	2 44
1150	" 28	Melton, Bradley Co.	Zostrope, etc.	3 08
1151	" 28	Odin Coal Co.	Coal	939 40
1152	" 28	Robinson & Burr	Machinist's labor and material	764 64
1153	" 28	R. S. Wilber	Drayage	159 15
1154	" 28	The Gazette	Printing and stationery	353 81
1155	" 28	Robert Clark & Co.	History of Illinois	2 50
1156	" 28	Gutav E. Stechert	Books and subscription	13 13
1157	" 28	Brown, Mittendorf & Hall	Chairs, etc.	21 17
1158	" 28	Henry Trevett	Hardware	65 05
1159	" 28	Bausch & Lomb Optical Co.	Apparatus, etc.	37 84
1160	" 28	Soule Photograph Co.	Slides	273 44
1161	" 28	McIntosh Battery and Optical Co.	Apparatus	262 95
1162	" 28	William Price	Painting, etc.	763 85
1163	" 28	A. C. McClurg & Co.	Books	431 04
1164	" 28	L. P. Breckenridge	Salary, 3 mo. to date, Supt. heating	62 50
1165	" 28	American Express Co.	Freightage	29 60
1166	" 28	W. L. Steele	Music	7 25
1167	" 28	W. O. Krohn	Expenses	8 71
1168	" 28	Lydia M. Hart	Drawings	27 90
1169	" 28	Bernard Quaritch	Books	27 30
1170	" 28	F. M. McMurry	Expenses visiting high school	90 13
1171	" 28	F. Weimschenk	Gymnasium apparatus	15 00
1172	" 28	Chemical Laboratory	Chem. and apparatus	23 31
1173	" 28	Mechanical Depart. U. of I.	Labor, material, power	456 47
1174	" 28	Architectural Depart. U. of I.	" " "	423 07
1175	" 28	Architectural Depart. U. of I.	" " "	921 77
1176	Mar. 6	Yeager & Schultz	Amount due on building contract	10,037 72
1177	" 14	Nina B. Bronson	Land	50 09
1178	" 14	Nina B. Bronson	"	4,450 00
1179	" 15	N. W. Graham	Expenses to board meeting	23 32
1180	" 15	Henry Raab	" " "	5 00
1181	" 15	Alex. McLean	" " "	30 82
1182	" 15	S. A. Bullard	Expenses to board and com. meetings	62 30
1183	" 15	F. M. McKay	" " "	15 80
1184	" 15	J. E. Armstrong	" " "	12 31
1185	" 15	N. B. Morrison	" " "	18 90
1186	" 15	I. S. Raymond	" " "	4 00
1187	" 15	T. J. Burrill	Traveling expenses	49 85
1188	" 15	C. W. Spalding	Accrued interest on bonds	20 00
1189	" 15	Frank Young	Tuning piano	5 00
1190	" 15	C. C. Bailey	Repairs on pump	2 00
1191	" 15	F. L. Bills	Postage	27 40
1192	" 15	D. H. Chester	Services and expenses World's Fair	246 63
1193	" 15	Electric Lighting and Power Co.	Expenses cutting trolley wires	25 00
1194	" 15	Entomological Society of Ontario	Subscription	1 00
1195	" 15	H. W. Rokker	Bulletins	4 50
1196	" 15	Ginn & Co.	Books	12 00
1197	" 15	National Typewriter Exchange	Supplies	6 00
1198	" 15	Macmillan & Co.	Subscription	6 00
1199	" 15	H. C. Forbes	Laboratory expenses	2 98
1200	" 15	Walker & Mullekin	Furniture	23 00
1201	" 15	The Pantagraph Printing Co.	Blue prints	14 40
1202	" 15	The Puster Mfg. Co.	Pulleys	6 00
1203	" 15	Electric Appliance Co.	Apparatus	24 94
1204	" 15	Chicago Shafting and Pulley Co.	Pulleys	36 44
1205	" 15	Schaffer & Budenberg	Repairs	6 70
1206	" 15	American Battery Co.	Storage cells, etc.	13 15
1207	" 15	Page Belting Co.	Belts	9 41
1208	" 15	The Electric Storage Battery Co.	Apparatus	16 25
1209	" 15	Hayden Brothers	Lumber	5 75
1210	" 15	Hartley & Graham	Balls and primers	13 50
1211	" 15	Queen & Co.	Mercurial pyrometer	22 50
1212	" 15	Crosby Steam Gauge and Valve Co.	Indicators cards	3 00
1213	" 15	Howard White	Flexible metallic filets	4 33
1214	" 15	Chicago Foundry Supply Co.	Plumbago	3 00
1215	" 15	Celley & Wright	Apparatus	2 50
1216	" 15	McIntosh Battery and Optical Co.	"	3 50
1217	" 15	The Illini	Advertising	185 28
1218	" 15	C. W. Carter	Charts	3 90
1219	" 15	Kenyon News and Postal Sub. Co.	Subscription	26 70
1220	" 15	Chas. Scribner's Sons	Books	20 00
1221	" 15	B. Westernman & Co.	"	29 04

*List of Warrants—Continued.*

No.	Date.	To whom.	For what.	Amount.
	1893.			
1222	Mar. 15.	Carl Schoenhof.	Books.	\$3 57
1223	" 15.	W. O. Krohn.	Expenses.	8 15
1224	" 15.	Pay rolls of men, Feb., 1894.	Labor.	280 48
1225	" 15.	Pay rolls of students, Feb., 1894.		176 40
1226	" 26.	T. J. Burrill.	Salary for March, 1894.	266 66
1227	" 26.	S. W. Shattuck.		166 66
1228	" 26.	E. Snyder.		166 66
1229	" 26.	N. C. Ricker.		166 66
1230	" 26.	G. E. Morrow.		108 33
1231	" 26.	I. O. Baker.		166 66
1232	" 26.	S. A. Forbes.		83 33
1233	" 26.	C. W. Rolfe.		166 66
1234	" 26.	D. McIntosh.		150 00
1235	" 26.	A. N. Talbot.		166 66
1236	" 26.	A. W. Palmer.		166 66
1237	" 26.	F. F. Frederick.		150 00
1238	" 26.	S. W. Parr.		150 00
1239	" 26.	H. J. Barton.		166 66
1240	" 26.	Chas. M. Moss.		166 66
1241	" 26.	D. K. Dodge.		166 66
1242	" 26.	F. M. McMurry.		166 66
1243	" 26.	L. P. Breckenridge.		166 66
1244	" 26.	G. W. Myers.		125 00
1245	" 26.	Katharine Merrill.		100 00
1246	" 26.	D. W. Shea.		150 00
1247	" 26.	W. O. Krohn.		150 00
1248	" 26.	Elizabeth Cooley.		133 33
1249	" 26.	David Kinley.		150 00
1250	" 26.	J. D. Bruner.		150 00
1251	" 31.	H. E. Summers.		100 00
1252	" 31.	J. M. White.		108 33
1253	" 31.	W. H. VanDervoort.		125 00
1254	" 31.	E. J. Townsend.		166 66
1255	" 31.	E. K. Hall.		125 00
1256	" 31.	G. W. Parker.		115 00
1257	" 31.	W. D. Pence.		120 00
1258	" 31.	Maud Kimball.		30 00
1259	" 31.	Edith A. Shattuck.		70 00
1260	" 31.	T. A. Clark.		100 00
1261	" 31.	C. W. McLane.		100 00
1262	" 31.	F. D. Gardner.		41 66
1263	" 31.	W. E. Sanford.		75 00
1264	" 31.	Alice M. Barber.		60 00
1265	" 31.	H. S. Piatt.		80 00
1266	" 31.	J. D. Phillips.		75 00
1267	" 31.	Chas. A. Gunn.		75 00
1268	" 31.	A. H. White.		75 00
1269	" 31.	W. Esty.		100 00
1270	" 31.	E. G. Howe.		150 00
1271	" 31.	Anita M. Kellogg.		100 00
1272	" 31.	A. H. Daniels.		100 00
1273	" 31.	Frank Smith.		100 00
1274	" 31.	A. P. Winston.		100 00
1275	" 31.	Albert Curtiss.		75 00
1276	Mar. 31.	B. V. Swenson.		75 00
1277	" 31.	L. W. Peabody.		70 00
1278	" 31.	C. B. Clark.		75 00
1279	" 31.	H. E. Parker.		30 00
1280	" 31.	N. A. Weston.		75 00
1281	" 31.	W. D. Gibbs.		40 00
1282	" 31.	C. V. Millar.		40 00
1283	" 31.	C. W. Carter.		40 00
1284	" 31.	Henry Jones.		50 00
1285	" 31.	C. Bennett.		83 33
1286	" 31.	Lillie Heath.		45 00
1287	" 31.	Elva Blount.		45 00
1288	" 31.	A. B. Baker.		70 00
1289	" 31.	J. Morrow.		60 00
1290	" 31.	L. H. Walden.		25 00
1291	" 31.	A. Iten.		25 00
1292	" 31.	C. A. Herme.		30 00
1293	" 31.	L. G. Lathrop.		30 00
1294	" 31.	M. J. Lindsey.		30 00
1295	" 31.	E. W. Justus.		35 00
1296	" 31.	J. M. Doughty.		30 00
1297	" 31.	H. C. Forbes.		83 33
1298	" 31.	John Marten.		83 33



*List of Warrants—Continued.*

No.	Date.	To whom.	For what.	Amount.
	1893.			
1299	Mar. 31.	Mary J. Snyder.	Salary for March, 1894.	\$62 50
1300	" 31.	Chas. A. Hart.	" " "	62 50
1301	" 31.	H. E. Summers.	" " "	25 00
1302	" 31.	E. B. Preston & Co.	Hose.	33 33
1303	" 31.	Wm. Miebach & Co.	Hardware.	53 40
1304	" 31.	Odin Coal Co.	Coal.	230 85
1305	" 31.	Maltby & Wallace Co.	Fittings, repairs, etc.	67 35
1306	" 31.	A. C. McClurg & Co.	Stationery.	18 10
1307	" 31.	Public School Pub. Co.	Advertising.	6 00
1308	" 31.	J. Manz & Co.	Plates.	2 25
1309	" 31.	T. R. While, Jr.	Gas, February, 1894.	142 00
1310	" 31.	George Besore.	Lumber.	34 87
1311	" 31.	Bullard-Gormley Co.	Hardware.	21 00
1312	" 31.	Eberbach Drug and Chem. Co.	Laboratory supplies.	22 50
1313	" 31.	The Kariher Co-operative Co.	Sugar.	1 00
1314	" 31.	Albany Per. Wrapping Paper Co.	Paper.	8 00
1315	" 31.	Robinson & Burr.	Fitting and repairs.	36 09
1316	" 31.	N. W. Graham.	Expense trip to Cleveland.	50 55
1317	" 31.	J. E. Armstrong.	" " "	27 35
1318	" 31.	Smith-Premier Typewriter Co.	Typewriter, etc.	124 50
1319	" 31.	Electric Lighting & Power Co.	Power, July, 1892, to Feb. 15, 1894.	73 91
1320	" 31.	D. H. Lloyd & Son.	Rent of piano, 3 mo., March 16, 1894.	15 00
1321	" 31.	W. L. Steele.	Band leader, winter term.	15 00
1322	" 31.	F. L. Bills.	Postage stamps.	25 00
1323	" 31.	H. C. Forbes.	Expenses of laboratory.	4 40
1324	" 31.	Adams Express Co.	Freight charge.	50
1325	" 31.	The Monarch Distillery.	Alcohol.	36 78
1326	Apr. 16.	Yeager & Schultz.	Amount due on contract.	4,857 88
1327	" 16.	Geo. W. Bullard.	Services as architect and superinten't.	1,200 00
1328	" 16.	I. H. Rapp.	Services as superintendent.	130 00
1329	" 16.	W. L. Pillsbury.	Salary as secretary, March, 1894.	41 66
1330	" 16.	S. W. Shattuck.	Petty expenses to Feb. 28, 1894.	22 40
1331	" 16.	N. W. Graham.	Notary fees paid.	2 00
1332	" 16.	T. J. Burrill.	Expenses to Cleveland.	31 45
1333	" 16.	C. W. Hart.	Traveling expenses.	3 14
1334	" 16.	H. A. Surface.	Work on entomologist's office.	56 00
1335	" 16.	S. A. Forbes.	Expenses.	34 92
1336	" 16.	F. M. McKay.	Expenses committee business.	16 50
1337	" 16.	F. M. McMurry.	Expenses paid.	7 25
1338	" 16.	H. J. Barton.	Expenses visiting schools.	27 23
1339	" 16.	W. O. Krohn.	Laboratory expenses.	17 33
1340	" 16.	Frank Smith.	Expenses to Havana.	15 05
1341	" 16.	Frank L. Bills.	Postage.	25 00
1342	" 16.	Lydia M. Hart.	Drawings.	42 65
1343	" 16.	Mandel Brothers.	Bolting.	5 40
1344	" 16.	Union Telephone Co.	Rent of instruments.	20 21
1345	" 16.	Disuilling & Cattle Feeding Co.	Alcohol.	22 05
1346	" 16.	C. C. C. & St. L. Ry Co.	Freightage.	2 49
1347	" 16.	I. C. R. R. Co.	" " "	13 50
1348	" 16.	Pacific Express Co.	Expressage.	9 21
1349	" 16.	American Express Co.	" " "	23 90
1350	" 16.	G. C. Miller.	Blue prints.	38 73
1351	" 16.	S. R. Roberts.	Manual of Conchology.	6 00
1352	" 16.	Revere Rubber Co.	Rubber tubing.	5 00
1353	" 16.	Bacon, Mittendorf & Hall.	Frames, etc.	39 25
1354	" 16.	A. P. Cunningham & Son.	Nature.	1 80
1355	" 16.	Western Union Telegraph Co.	Telegrams.	1 97
1356	" 16.	E. H. Sargent & Co.	Corks.	1 48
1357	" 16.	Pantagraph Printing Co.	Printing.	7 22
1358	" 16.	V. Baker.	Ice.	1 10
1359	" 16.	Yale & Towne Mfg. Co.	Locks.	2 60
1360	" 16.	Crosby Steam Gage & Valve Co.	Lubricators.	5 88
1361	" 16.	A. C. McClurg & Co.	Books.	540 93
1362	" 16.	Publishers' Weekly.	Annual literary index.	3 66
1363	" 16.	Ozias Riley.	Rent of organ.	4 00
1364	" 16.	Darling, Brown & Sharpe.	Steel rule.	9 00
1365	" 16.	McIntosh Battery & Optical Co.	Apparatus.	5 65
1366	" 16.	Gustav E. Stechert.	Books.	24 50
1367	" 16.	Eastman Kodak Co.	Supplies.	4 00
1368	" 16.	Norton Emery Wheel Co.	Emery wheels.	5 40
1369	" 16.	Manning, Maxwell & Moore.	Belts, hooks, etc.	6 40
1370	" 16.	Fuller & Fuller Co.	Laboratory supplies.	16 76
1371	" 16.	Richards & Co., Ltd.	Thermometers, etc.	47 92
1372	" 16.	Union Mfg. Co.	Water to July 1, 1894.	125 00
1373	" 16.	M. C. Lilley & Co.	Military supplies.	21 10
1374	" 16.	Pay rolls of men, March, 1894.	Labor.	401 53
1375	" 16.	Pay rolls of students, March, 1894.	" " "	170 21

*List of Warrants—Continued.*

No.	Date.	To whom.	For what.	Amount.
	1893.			
1376	April 30	T. J. Burrill.....	Salary for April, 1894.....	266 66
1377	" 30	S. W. Shattuck.....	" ".....	166 66
1378	" 30	E. Snyder.....	" ".....	166 66
1379	" 30	N. C. Ricker.....	" ".....	166 66
1380	" 30	G. E. Morrow.....	" ".....	83 33
1381	" 30	I. O. Baker.....	" ".....	166 66
1382	" 30	S. A. Forbes.....	" ".....	83 33
1383	" 30	C. W. Rolfe.....	" ".....	166 66
1384	" 30	D. McIntosh.....	" ".....	150 00
1385	" 30	A. N. Talbot.....	" ".....	166 66
1386	" 30	A. W. Palmer.....	" ".....	166 66
1387	" 30	F. F. Frederick.....	" ".....	150 00
1388	" 30	S. W. Parr.....	" ".....	150 00
1389	" 30	H. J. Barton.....	" ".....	166 66
1390	" 30	Chas. M. Moss.....	" ".....	166 66
1391	" 30	D. K. Dodge.....	" ".....	166 66
1392	" 30	F. M. McMurtry.....	" ".....	166 66
1393	" 30	L. P. Breckenridge.....	" ".....	166 66
1394	" 30	G. W. Myers.....	" ".....	125 00
1395	" 30	Katharine Merrill.....	" ".....	100 00
1396	" 30	D. W. Shea.....	" ".....	150 00
1397	" 30	W. O. Krohn.....	" ".....	150 00
1398	" 30	Elizabeth Cooley.....	" ".....	133 33
1399	" 30	David Kinley.....	" ".....	150 00
1400	" 30	J. D. Bruner.....	" ".....	150 00
1401	" 30	H. E. Summers.....	" ".....	100 00
1402	" 30	J. M. White.....	" ".....	108 33
1403	" 30	W. H. Van Dervoort.....	" ".....	125 00
1404	" 30	E. J. Townsend.....	" ".....	116 66
1405	" 30	E. K. Hall.....	" ".....	125 00
1406	" 30	G. W. Parker.....	" ".....	115 00
1407	" 30	W. D. Pence.....	" ".....	120 00
1408	" 30	Maud Kimball.....	" ".....	30 00
1409	" 30	Edith A. Shattuck.....	" ".....	70 00
1410	" 30	T. A. Clark.....	" ".....	100 00
1411	" 30	C. D. McLane.....	" ".....	100 00
1412	" 30	G. P. Clinton.....	" ".....	83 33
1413	" 30	W. E. Sandford.....	" ".....	75 00
1414	" 30	Alice M. Barber.....	" ".....	60 00
1415	" 30	H. S. Piatt.....	" ".....	80 00
1416	" 30	J. D. Phillips.....	" ".....	75 00
1417	" 30	Chas. A. Gunn.....	" ".....	75 00
1418	" 30	A. H. White.....	" ".....	75 00
1419	" 30	W. Esty.....	" ".....	100 00
1420	" 30	E. G. Howe.....	" ".....	150 00
1421	" 30	Anita M. Kellogg.....	" ".....	100 00
1422	" 30	A. H. Daniels.....	" ".....	100 00
1423	" 30	Frank Smith.....	" ".....	100 00
1424	" 30	A. P. Winston.....	" ".....	100 00
1425	" 30	Albert Curtiss.....	" ".....	75 00
1426	" 30	B. V. Swenson.....	" ".....	75 00
1427	" 30	L. W. Peabody.....	" ".....	70 00
1428	" 30	C. B. Clark.....	" ".....	75 00
1429	" 36	H. E. Parker.....	" ".....	30 00
1430	" 30	N. A. Weston.....	" ".....	75 00
1431	" 30	W. D. Gibbs.....	" ".....	40 00
1432	" 30	C. V. Millar.....	" ".....	40 00
1433	" 30	C. W. Carter.....	" ".....	40 00
1434	" 30	Henry Jones.....	" ".....	50 00
1435	" 30	C. Bennett.....	" ".....	83 33
1436	" 30	Lillie Heath.....	" ".....	45 00
1437	" 30	Elva Blount.....	" ".....	45 00
1438	" 30	A. B. Baker.....	" ".....	70 00
1439	" 30	J. Morrow.....	" ".....	60 00
1440	" 30	L. H. Walden.....	" ".....	25 00
1441	" 30	A. Iten.....	" ".....	25 00
1442	" 30	C. A. Herme.....	" ".....	30 00
1443	" 30	L. G. Lathrop.....	" ".....	30 00
1444	" 30	M. J. Lindsey.....	" ".....	30 00
1445	" 30	E. W. Justus.....	" ".....	40 00
1446	" 30	H. C. Forbes.....	" ".....	83 33
1447	" 30	John Marten.....	" ".....	83 33
1448	" 30	Mary J. Snyder.....	" ".....	62 50
1449	" 30	Chas. A. Hart.....	" ".....	62 50
1450	" 30	H. E. Summers.....	" ".....	25 00
1451	" 30	W. L. Pillsbury.....	" ".....	100 00
1452	" 30	I. H. Rapp.....	" ".....	130 00

*List of Warrants—Continued.*

No.	Date.	To whom.	For whom.	Amount.
	1894.			
1453	April 30	N. W. Graham	Expense to board meeting	\$24 55
1454	" 30	R. P. Morgan	" " etc.	29 95
1455	" 30	J. H. Bryant	" " "	8 25
1456	" 30	W. L. Pillsbury	" " "	11 51
1457	" 30	F. M. McMurry	Summer school expenses	15 05
1458	" 30	Lillian McLain	Labor in geological laboratory	6 70
1459	" 30	Agricultural department U. of I.	Expenses March, 1894	11 14
1460	" 30	C. B. Richards Co.	Freight, etc.	10 95
1461	" 30	J. W. Keller	Fire work	4 93
1462	" 30	Harry S. Barnes	Cleaning bricks	9 45
1463	" 30	The Deane Steam Pump Co.	Fibrous packing	1 50
1464	" 30	C. A. Hunt	Curtains	3 25
1465	" 30	Orr & Lockett Hardware Co.	Hardware	30 45
1466	" 30	Ansonia Brass & Copper Co.	Brass rods	27 85
1467	" 30	C. Hennecke & Co.	Baskets	3 60
1468	" 30	Storrs & Harrison Co.	Clematis	5 40
1469	" 30	Maltby & Wallace Co.	Repairs	6 37
1470	" 30	A. C. McClurg & Co.	Stationery	33 64
1471	" 30	Henry Trevett	Hardware	132 87
1472	" 30	Queen & Co.	Apparatus	36 75
1473	" 30	Electric Appliance Co.	"	20 95
1474	" 30	McIntosh Battery & Optical Co.	Galvanometer	36 00
1475	" 30	Richard Kny & Co.	Apparatus	525 96
1476	May 15	Yeager & Schultz	Amount due on building contract	5,022 75
1477	" 15	Alex. McLean	Expenses to board meeting	19 14
1478	" 15	T. J. Burrill	Traveling expenses	12 00
1479	" 15	T. A. Clark	Expenses visiting schools	38 88
1480	" 15	E. G. Howe	"	2 50
1481	" 15	J. C. Quade	For the <i>Technograph</i>	40 53
1482	" 15	E. R. Hills	Target supplies	1 28
1483	" 15	G. W. McCluer	Salary, April, 1894	15 00
1484	" 15	B. F. Gump	Bolting cloth	15 20
1485	" 15	Frank Smith	Expenses	30 90
1486	" 15	Gordon Foundry	Shelving	2 00
1487	" 15	Geo. Dehm	Shelving and counter	2 00
1488	" 15	M. Newbery	Mosquito nets	1 50
1489	" 15	Chas. Schill	Hardware	2 30
1490	" 15	M. M. Clark	Coal	1 15
1491	" 15	G. E. McHose	Boat rent	12 00
1492	" 15	A. E. Wiener	Rubber coat, etc.	3 50
1493	" 15	S. A. Forbes	Expenses	32 91
1494	" 15	Lydia M. Hart	Drawings	12 42
1495	" 15	C. A. Hart	Expenses	6 15
1496	" 15	H. A. Surface	"	11 30
1497	" 15	Bausch & Lomb Optical Co.	Stage micrometers	3 00
1498	" 15	H. C. Forbes	Expenses	3 50
1499	" 15	L. Aubere	Furniture	20 35
1500	" 15	E. H. Sargent & Co.	Bottle corks, etc.	39 93
1501	" 15	Albany Perforated Paper Co.	Paper	8 00
1502	" 15	L. W. Faulkner Co.	"	3 50
1503	" 15	Bullard, Gormley Co.	Screws	12 43
1504	" 15	Kirkpatrick Grocery Co.	Brooms, etc.	1 21
1505	" 15	T. H. Trevett	Hardware	8 92
1506	" 15	T. R. White, Jr.	Gas for March, 1894	134 00
1507	" 15	N. W. Davis	Sand	13 75
1508	" 15	Price & Sandford	Oils, etc.	16 95
1509	" 15	G. C. Willis	Toweling, etc.	8 30
1510	" 15	T. Olsen & Co.	Testing machine	1,550 00
1511	" 15	The Ashcroft Manufacturing Co.	Metallic indicator paper	11 70
1512	" 15	Crosby Steam Gage & Valve Co.	Planimeters, etc.	52 04
1513	" 15	F. F. Roots & Bro.	Tables, etc.	30 45
1514	" 15	Academy of Nat'l Science of Phila.	Subscription	2 50
1515	" 15	Bilton, Bradley & Co.	Bristol board	1 31
1516	" 15	O. Davis & Co.	Methods in taxidermy	5 00
1517	" 15	N. Y. Entomological Society	Subscription	4 00
1518	" 15	The Mathews Northrup Co.	Maps	35 00
1519	" 15	The Harris Pubs'g Co.	Fishes of North America	6 00
1520	" 15	F. L. Bills	Postage stamps	31 50
1521	" 15	I. C. R. R. Co.	Freightage	63 14
1522	" 15	C., C. & St. L. Ry	"	16 63
1523	" 15	Wabash Ry. Co.	"	3 54
1524	" 15	Pacific Express Co.	"	8 25
1525	" 15	American Express Co.	"	24 71
1526	" 15	Maltby & Wallace Co.	Repairs	30 09
1527	" 15	The Odin Coal Co.	Coal	55 45
1528	" 15	Samuel Harris Co.	Gear cutter, etc.	5 84
1529	" 15	Detroit Flower Pot Mfg. Co.	Greenhouse supplies	7 35

*List of Warrants—Continued.*

No.	Date.	To whom.	For what.	Amount.
1894.				
1530	May 15	Richards & Co.	Geologist's compass, etc.	\$10 67
1531	" 15	Hausmann & Dunn	Instruments.	40 33
1532	" 15	H. J. Barton	Expenses to high school	8 82
1533	" 15	Rand, McNally	Map of Illinois	12 00
1534	" 15	G. W. McCluer	Expenses to Bloomington	6 10
1535	" 15	E. R. Hills	Target supplies	1 15
1536	" 15	J. J. McGoum	Sprayer and outfit.	13 95
1537	" 15	B. Zelle	Matting, etc.	13 30
1538	" 15	M. Newberry	Labor	22 50
1539	" 15	Adolph Hempel		23 83
1540	" 15	The Inland Pubs'g Co.	Subscription	8 75
1541	" 15	World's Columbian Exposition	Plates	15 50
1542	" 15	A. C. McClurg & Co.	Books, etc.	239 69
1543	" 15	B. Westermann & Co.		10 17
1544	" 15	Whitall, Tatum & Co.	Apparatus	22 05
1545	" 15	W. O. Krohn	Expenses	50 25
1546	" 15	Katharine Merrill	"	1 50
1547	" 15	C. L. Miller	Tuning piano	2 50
1548	" 15	Bevis & Company	sawdust	1 50
1549	" 15	Pay-roll of men.	Labor, April, 1894.	355 55
1550	" 15	Pay-roll of students		133 17
1551	" 31	T. J. Burrill	Salary for May, 1894.	266 66
1552	" 31	S. W. Shattuck	"	166 66
1553	" 31	E. Snyder	"	166 66
1554	" 31	N. C. Ricker	"	166 66
1555	" 31	G. E. Morrow	"	83 33
1556	" 31	I. O. Baker	"	166 66
1557	" 31	S. A. Forbes	"	83 33
1558	" 31	C. W. Rolfe	"	166 66
1559	" 31	D. McIntosh	"	150 00
1560	" 31	N. A. Talbot	"	166 66
1561	" 31	A. W. Palmer	"	166 66
1562	" 31	E. F. Frederick	"	150 00
1563	" 31	S. W. Parr	"	150 00
1564	" 31	H. J. Barton	"	166 66
1565	" 31	Chas. M. Moss	"	166 66
1566	" 31	D. K. Dodge	"	166 66
1567	" 31	F. M. McMurtry	"	166 66
1568	" 31	L. P. Breckenridge	"	166 66
1569	" 31	Geo. W. Myers	"	125 00
1570	" 31	Katharine Merrill	"	100 00
1571	" 31	D. W. Shea	"	150 00
1572	" 31	W. O. Krohn	"	150 00
1573	" 31	Elizabeth Cooley	"	133 33
1574	" 31	David Kinley	"	150 00
1575	" 31	J. D. Bruner	"	150 00
1576	" 31	H. E. Summers	"	100 00
1577	" 31	J. M. White	"	108 33
1578	" 31	W. H. Van Dervoort	"	125 00
1579	" 31	E. J. Townsend	"	116 66
1580	" 31	E. K. Hall	"	125 00
1581	" 31	Geo. W. Parker	"	115 00
1582	" 31	W. D. Pence	"	120 00
1583	" 31	Maud Kimball	"	30 00
1584	" 31	Edith A. Shattuck	"	70 00
1585	" 31	T. A. Clark	"	100 00
1586	" 31	C. D. McLane	"	100 00
1587	" 31	G. P. Clinton	"	83 33
1588	" 31	W. E. Sandford	"	75 00
1589	" 31	Alice M. Barber	"	60 00
1590	" 31	H. S. Platt	"	80 00
1591	" 31	J. D. Phillips	"	75 00
1592	" 31	Chas. A. Gunn	"	75 00
1593	" 31	A. H. White	"	75 00
1594	" 31	G. Esty	"	100 00
1595	" 31	E. G. Howe	"	150 00
1596	" 31	Anita M. Kellogg	"	100 00
1597	" 31	A. H. Daniels	"	100 00
1598	" 31	Frank Smith	"	100 00
1599	" 31	A. P. Winston	"	100 00
1600	" 31	Albert Curtiss	"	75 00
1601	" 31	B. V. Swenson	"	75 00
1602	" 31	L. W. Peabody	"	70 00
1603	" 31	C. B. Clark	"	75 00
1604	" 31	H. E. Parker	"	30 00
1605	" 31	N. A. Weston	"	75 00
1606	" 31	G. W. McCluer	"	15 00
1607	" 31	W. D. Gibbs	"	40 00

*List of Warrants—Continued.*

No.	Date.	To whom.	For what.	Amount.
	1894.			
1608	May 31	C. V. Millar	Salary for May, 1894	\$40 00
1609	" 31	C. W. Carter	" "	40 00
1610	" 31	Henry Jones	" "	50 00
1611	" 31	C. Bennett	" "	83 33
1612	" 31	Lillie Heath	" "	45 00
1613	" 31	Elva Blount	" "	45 00
1614	" 31	A. B. Baker	" "	70 00
1615	" 31	J. Morrow	" "	60 00
1616	" 31	L. H. Walden	" "	25 00
1617	" 31	A. Iten	" "	25 00
1618	" 31	C. A. Herme	" "	30 00
1619	" 31	L. G. Lathrop	" "	30 00
1620	" 31	M. J. Lindsey	" "	30 00
1621	" 31	E. W. Justus	" "	40 00
1622	" 31	H. C. Forbes	" "	83 33
1623	" 31	John Marten	" "	83 33
1624	" 31	Mary J. Snyder	" "	62 50
1625	" 31	Chas. A. Hart	" "	62 50
1626	" 31	H. E. Summers	Salary for May, 1894	25 00
1627	" 31	W. L. Pillsbury	" "	100 00
1628	" 31	L. P. Breckenridge	Salary for 3 months to May 31, 1894	62 50
1629	" 31	S. W. Shattuck	Salary 3 months to May 31, 1894	150 00
1630	" 31	I. H. Rapp	Salary, May, 1894	130 00
1631	" 31	Western Bank Note Eng. Co.	Diploma	37 50
1632	" 31	Engineering News Pub. Co.	Advertising	6 80
1633	" 31	Fuller & Fuller Co.	Chemical supplies	5 53
1634	" 31	E. Miller & Son	Laboratory supplies	18 83
1635	" 31	H. C. Karlier	" "	15 85
1636	" 31	E. Henry	Supplies	115 57
1637	" 31	Robinson & Burr	Iron piping, etc.	85 03
1638	" 31	G. E. Stechert	Books	108 50
1639	" 31	Lawton & Co.	Letter duplicator	16 15
1640	" 31	Pantagraph Printing Co.	Binding books	112 48
1641	" 31	The Illinois	Subscription and advertising	169 84
1642	" 31	Champaign County Herald	Printing, etc.	86 60
1643	" 31	Wm. Price	Painting, etc	181 89
1644	" 31	R. Friedlander & Son	Books	284 29
1645	" 31	A. C. McUlurg & Co.	" "	209 41
1646	" 31	Chem. Lab. University of Ill.	Chemical supplies	50 71
1647	" 31	Physical laboratory	Set of weights, etc.	53 25
1648	" 31	Mechanical depart. Univ. of Ill.	Labor, material and power	574 32
1649	" 31	Architectural depart. Univ. of Ill.	" "	279 40
165	" 31	Architectural depart. Univ. of Ill.	" "	344 68
1651	June 8	Yeager & Schultz	On contract Engineering Hall	9,859 19
1652	" 8	N. W. Graham	Expenses to board meeting	20 57
1653	" 8	Alex. McLean	" "	23 36
1654	" 8	S. A. Bullard	Expenses to board and com. meeting	91 40
1655	" 8	James E. Armstrong	" "	14 16
1656	" 8	I. S. Raymond	" "	17 50
1657	" 8	James B. Angell	Commencement address	100 00
1658	" 8	Wm. L. Steele	Music at commencement exercises	27 45
1659	" 8	G. C. Willis	Ribbon	4 65
1660	" 8	Phillips & Pillsbury	Writing diplomas	58 25
1661	" 8	F. L. Bilis	Postage	60 00
1662	" 8	W. L. Pillsbury	Expenses to look after catalogue	10 40
1663	" 8	E. R. Hills	Expenses	4 30
1664	" 8	Frank Young	Tuning pianos	2 50
1665	" 8	E. Henry	Oils, etc.	4 35
1666	" 8	G. C. Miller	Blue points, etc.	24 84
1667	" 8	C. W. Rolfe	Ores, etc.	5 00
1668	" 8	E. R. Boyer	Services and expenses	15 35
1669	" 8	Clara Maud Kimball	Music fees	602 00
1670	" 8	Mayme Hill	Services as pianist in gymnasium	64 00
1671	" 8	W. O. Krohn	Expenses	25 84
1672	" 8	John Marten	" "	10 30
1673	" 8	Lydia M. Hart	Drawings	31 60
1674	" 8	S. A. Forbes	Expenses	31 07
1675	" 8	N. C. Ricker	Photo mountings, etc.	65 10
1676	" 8	H. W. Rokker	Printing	1,000 00
1677	" 8	Miles Newberry	Services at biological station	46 50
1678	" 8	Adolph Hempel	" "	25 00
1679	" 8	American Net and Twine Co.	Band net	9 50
1680	" 8	H. C. Forbes	Laboratory expenses	4 25
1681	" 8	F. H. Sargeant & Co.	Apparatus, etc.	27 01
1682	" 8	G. E. Stechert	Books	118 26
1683	" 8	H. F. Summers	Laboratory supplies	11 30
1684	" 8	A. E. Foote	Crystals	125 00

*List of Warrants—Continued.*

No.	Date.	To whom.	For what.	Amount.
	1893.			
1685	June 8	Maltby & Wallace Co.	Pressure regulator, etc.	42 02
1686	" 8	D. C. Heath & Co.	Books	10 58
1687	" 8	Houghton, Mifflin & Co.	Vol. 6 of Silva.	25 00
1688	" 8	American Journal of Philology	Book	42 00
1689	" 8	John Hopkins Press	"	3 00
1690	" 8	T. R. White, Jr.	Gas, April, 1894	126 00
1691	" 8	Standard Oil Co.	Oil	11 08
1692	" 8	W. H. Van Dervoort	Expense.	5 95
1693	" 8	The Machinist's Supply Co.	Letters	2 17
1694	" 8	George B. Carpenter Co.	Flag	4 90
1695	" 8	E. H. Renner Bros.	Carriage	3 00
1696	" 8	P. Junkersfeld.	<i>Technograph</i>	59 47
1697	" 8	Pantagraph Printing Co.	Printing.	40 50
1698	" 8	The Chicago Herald Co.	Advertising	22 40
1699	" 8	W. W. Walls Co.	Cement	3 00
1700	" 8	Electric Lighting & Power Co.	Power 3 months, May 14, 1894	6 30
1701	" 15	Queen & Co.	Balance, etc.	343 40
1702	" 15	Geo. A. Ogle & Co.	Atlas	6 25
1703	" 15	The Puster Mfg. Co.	Pulleys, etc.	36 15
1704	" 15	Page Belting Co.	Leather belts	36 32
1705	" 15	Ansonia Brass and Copper Co.	Copper	26 88
1706	" 15	Richards & Co.	Tubing, etc.	47 41
1707	" 15	Chas. H. Besley & Co.	Brass	17 90
1708	" 15	Goodyear Rubber Co.	Tubing	5 00
1709	" 15	Chicago Shafting and Pulley Co.	Pulleys	97 79
1710	" 15	Fuller & Fuller Co.	Acids	25 30
1711	" 15	Richards & Co.	Thermometer	21 60
1712	" 15	A. H. Andrews & Co.	Seats	12 00
1713	" 15	Public School Pub. Co.	Advertising	6 00
1714	" 15	R. S. Wilber	Drayage	207 85
1715	" 15	McIntosh Battery and Optical Co.	Apparatus	137 65
1716	" 15	Western Electric Co.	Apparatus and supplies.	156 08
1717	" 15	Goodnow & Wightman	Steel balls	2 27
1718	" 15	Hausman & Dunn.	Handles	4 25
1719	" 15	C. A. Squire	Expenses Choral Union.	12 75
1720	" 15	S. W. Shattuck	Expenses trip to Minnesota lands.	74 46
1721	" 15	Illinois Central R. R. Co.	Freightage	34 54
1722	" 15	Pacific Express Co.	"	26 55
1723	" 15	American Express Co.	"	29 00
1724	" 15	Pay-roll of students, May, 1894.	Labor.	363 26
1725	" 15	Pay-roll of men, May, 1894.	"	370 89
1726	" 15	S. W. Shattuck	Petty expense to May 30, 1893	21 59
1727	" 15	John Orstrand	Drayage	7 00
1728	" 15	F. M. McKay	Expense to board meeting.	27 60
1729	" 15	Anita M. Kellogg	Expenses	2 50
1730	" 15	T. J. Burrill	Expenses paid.	11 50
1731	" 15	S. A. Forbes	Expenses	46 80
1732	" 15	A. C. McClurg & Co.	Books	185 14
1733	" 15	G. E. Stechert	"	412 09
1734	" 15	E. I. Shea	"	97 50
1735	" 15	D. Appleton & Co.	Annual Cyclopaedia	6 00
1736	" 15	D. H. Lloyd & Son.	Books	58 30
1737	" 15	A. N. Talbot	Expenses	22 85
1738	" 15	Southwick & Critchley	Pins	9 25
1739	" 15	National Typewriter Exchange.	Repairs	3 00
1740	" 15	Frank Smith	Expenses	19 25
1741	" 15	G. C. Willis	Cloth	1 30
1742	" 15	Jenney Electric Motor Co.	Armature, etc.	71 50
1743	" 15	Brush Electric Co.	Machine.	701 00
1744	" 15	Karlier Coöperative Co.	Oils, soaps, etc.	10 70
1745	" 15	Bausch & Lomb Optical Co.	Apparatus	32 33
1746	" 15	Ass'n Am. Agl. Col. and Exp. St.	Membership fees, '93-'94.	15 00
1747	" 15	Hornstein Bros.	Catalogue, etc.	603 60
1748	" 20	I. H. Rapp	Salary, June, 1894.	130 00
1749	" 20	G. W. Bullard	Services as architect.	1,200 00
1750	" 20	Yeager & Schultz.	On contract.	7,667 94
1751	" 30	T. J. Burrill	Salary for June, 1894.	266 66
1752	" 30	S. W. Shattuck	"	166 66
1753	" 30	E. Snyder	"	166 66
1754	" 30	N. C. Ricker	"	166 66
1755	" 30	G. E. Morrow	"	83 33
1756	" 30	I. O. Baker	"	166 66
1757	" 30	S. A. Forbes	"	83 33
1758	" 30	C. W. Rolfe	"	166 66
1759	" 30	D. McIntosh	"	150 00
1760	" 30	A. N. Talbot	"	166 66
1761	" 30	A. W. Palmer	"	166 60

*List of Warrants—Continued.*

No.	Date.	To whom.	For what.	Amount.
	1893.			
1762	June 30	F. F. Frederick .....	Salary for June, 1894.....	\$150 00
1763	" 30	S. W. Parr .....	" " .....	150 00
1764	" 30	H. J. Barton .....	" " .....	166 66
1765	" 30	Chas. M. Moss .....	" " .....	166 66
1766	" 30	D. K. Dodge .....	" " .....	166 66
1767	" 30	F. M. McMurry .....	" " .....	166 66
1768	" 30	L. P. Breckenridge .....	" " .....	166 66
1769	" 30	Geo. W. Myers .....	" " .....	125 00
1770	" 30	Katharine Merrill .....	" " .....	100 00
1771	" 30	D. W. Shea .....	" " .....	150 00
1772	" 30	W. O. Krohn .....	" " .....	150 00
1773	" 30	Elizabeth Cooley .....	" " .....	133 00
1774	" 30	David Kinley .....	" " .....	150 00
1775	" 30	J. D. Bruner .....	" " .....	150 00
1776	" 30	H. E. Summers .....	" " .....	100 00
1777	" 30	J. M. White .....	" " .....	108 33
1778	" 30	W. H. VanDervoort .....	" " .....	125 00
1779	" 30	E. J. Townsend .....	" " .....	116 66
1780	" 30	E. K. Hall .....	" " .....	125 00
1781	" 30	Geo. W. Parker .....	" " .....	115 00
1782	" 30	W. D. Pence .....	" " .....	120 00
1783	" 30	Maud Kimball .....	" " .....	30 00
1784	" 30	Edith A. Shattuck .....	" " .....	70 00
1785	" 30	T. A. Clark .....	" " .....	100 00
1786	" 30	C. D. McLane .....	" " .....	100 00
1787	" 30	G. P. Clinton .....	" " .....	83 33
1788	" 30	W. E. Sandford .....	" " .....	75 00
1789	" 30	Alice M. Barber .....	" " .....	60 00
1790	" 30	H. S. Piatt .....	" " .....	80 00
1791	" 30	J. D. Phillips .....	" " .....	75 00
1792	" 30	Chas. A. Gunn .....	" " .....	75 00
1793	" 30	A. H. White .....	" " .....	75 00
1794	" 30	W. Esty .....	" " .....	100 00
1795	" 30	G. E. Howe .....	" " .....	150 00
1796	" 30	Anita M. Kellogg .....	" " .....	160 00
1797	" 30	A. H. Daniels .....	" " .....	100 00
1798	" 30	Frank Smith .....	" " .....	100 00
1799	" 30	A. P. Winston .....	" " .....	100 00
1800	" 30	Albert Curless .....	" " .....	75 00
1801	" 30	B. V. Swenson .....	" " .....	75 00
1802	" 30	L. W. Peabody .....	" " .....	70 00
1803	" 30	C. B. Clark .....	" " .....	75 00
1804	" 30	H. E. Parker .....	" " .....	30 00
1805	" 30	N. A. Weston .....	" " .....	75 00
1806	" 30	G. W. McCluer .....	" " .....	15 00
1807	" 30	W. D. Gibbs .....	" " .....	40 00
1808	" 30	C. V. Millar .....	" " .....	40 00
1809	" 30	C. W. Carter .....	" " .....	40 00
1810	" 30	W. L. Pillsbury .....	" " .....	100 00
1811	" 30	C. Bennett .....	" " .....	83 33
1812	" 30	Lillie Heath .....	" " .....	45 00
1813	" 30	Elva Blount .....	" " .....	45 00
1814	" 30	A. B. Baker .....	" " .....	70 00
1815	" 30	J. Morrow .....	" " .....	30 00
1816	" 30	L. H. Walden .....	" " .....	12 50
1817	" 30	A. Iten .....	" " .....	12 50
1818	" 30	C. A. Herme .....	" " .....	30 00
1819	" 30	L. G. Lathrop .....	" " .....	30 00
1820	" 30	M. F. Lindsey .....	" " .....	15 00
1821	" 30	E. W. Justus .....	" " .....	20 00
1822	" 30	H. E. Forbes .....	" " .....	83 33
1823	" 30	Mary J. Snyder .....	" " .....	62 50
1824	" 30	Chas. A. Hart .....	" " .....	62 50
1825	" 30	H. E. Summers .....	" " .....	25 00
1826	" 30	August Hempel .....	Work at Havana station .....	25 00
1827	" 30	Miles Newberry .....	" " .....	45 00
1828	" 30	Henry Trevett .....	Hardware .....	117 29
1829	" 30	The Gazette .....	Printing, etc .....	29 50
1830	" 30	Edwards & Docker Co. .....	Subscription .....	4 00
1831	" 30	F. L. Bills .....	Postage .....	58 30
1832	" 30	Ill. Cent. R. R. Co. .....	Freightage .....	8 93
1833	" 30	American Express Co. .....	Expressage .....	7 80
1834	" 30	C. C. C. St. L. R'y. Co. .....	Freightage .....	45 71
1835	" 30	H. H. Scurlock .....	Moving piano .....	4 00
1836	" 30	Pub. School Pubg. Co. .....	Advertising .....	10 00
1837	" 30	T. H. Trevett .....	Hardware .....	15 50
1838	" 30	Geo. Besore .....	Lumber .....	72 57

*List of Warrants--Continued.*

No.	Date.	To whom.	For what.	Amount.
	1894.			
1839	June 30....	G. Cramer Dry Plate Works .....	Photo plates .....	\$3 20
1840	" 30....	Crosby Steam Gage & Valve Co. ....	Hose pipe .....	19 55
1841	" 30....	H. Leiber & Co. ....	Camera .....	10 80
1842	" 30....	General Electric Co. ....	Dynamo .....	175 00
1843	" 30....	Electric Appliance Co. ....	Meters, etc. ....	431 42
1844	" 30....	Western Electric Inst. Co. ....	Voltmeters .....	814 50
1845	" 30....	Westinghouse Elec. Mfg. Co. ....	Dynamos .....	400 00
1846	" 30....	E. C. Smith .....	Spherometer .....	50 00
1847	" 30....	Walker & Mulliken .....	Cord .....	4 32
1848	" 30....	Am. Institute Elec. Engineers .....	Proceedings .....	3 00
1849	" 30....	Maltby & Wallace Co. ....	Piping, etc. ....	11 15
1850	" 30....	Robinson & Burr .....	" .....	167 68
1851	July 10....	C. W. Spalding .....	Taxes .....	1,519 35
1852	" 10....	Macmillan & Co. ....	Subscription, etc. ....	5 10
1853	" 10....	R. S. Wilber .....	Drayage .....	2 90
1854	" 10....	C. W. Johnson .....	Subscription .....	1 00
1855	" 10....	H. C. Forbes .....	Expenses .....	5 60
1856	" 10....	Lawton & Co. ....	Stationery .....	6 80
1857	" 10....	F. L. Bills .....	Postage .....	39 00
1858	" 10....	Central Union Telephone Co. ....	Rent of instruments .....	21 00
1859	" 10....	John Marten .....	Salary part June, 1894. ....	27 82
1860	" 10....	Maltby & Wallace Co. ....	Amount due on heating contract. ....	1,500 00
1861	" 10....	W. E. Sandford .....	Petty expenses .....	1 40
1862	" 10....	T. R. White, Jr. ....	Gas, June, 1894. ....	113 60
1863	" 10....	Geneva Optical Co. ....	Tripod .....	3 60
1864	" 10....	Jenney Electric Motor Co. ....	Motor .....	67 50
1865	" 10....	B. Zelle .....	Rent for rooms .....	15 00
1866	" 10....	G. E. McHose .....	Use of boat .....	45 75
1867	" 10....	Mrs. Frank Smith .....	Salary, June, 1894. ....	25 00
1868	" 10....	McIntosh Battery Optical Co. ....	Set of net fixtures .....	25 00
1869	" 10....	E. H. Sargent Co. ....	Apparatus .....	29 42
1870	" 10....	G. P. Clinton .....	Expenses .....	14 59
1871	" 10....	John A. Schuette .....	Net .....	17 50
1872	" 10....	A. A. Beal & Co. ....	Plates .....	70 00
1873	" 10....	Wm. Price .....	Glazing .....	5 60
1874	" 10....	Pay-roll of men, June, 1894. ....	Labor .....	630 84
1875	" 10....	Pay-roll of students, June, 1894. ....	" .....	116 30
1876	" 31....	Yale Towne Mfg. Co. ....	Locks .....	14 17
1877	" 31....	Urbana Brick Co. ....	Brick .....	32 00
1878	" 31....	A. P. Cunningham & Son .....	Chemical supplies .....	16 90
1879	" 31....	J. A. Fay & Egan Co. ....	Saw setter and file, etc. ....	46 50
1880	" 31....	A. L. Ide & Son .....	Repairs, etc. ....	60 33
1881	" 31....	Schaffer & Budenberg .....	Repairs .....	3 05
1882	" 31....	E. C. Smith .....	thermometers .....	50 00
1883	" 31....	Richards & Co. ....	Platinum wire .....	5 22
1884	" 31....	Queen & Co. ....	Apparatus .....	32 90
1885	" 31....	Maltby & Wallace Co. ....	Pipe fittings, etc. ....	70 59
1886	" 31....	Wm. Price .....	Painting .....	37 93
1887	" 31....	Geo. Besore .....	Lumber .....	51 66
1888	" 31....	G. C. Willis .....	Crash, etc. ....	16 04
1889	" 31....	The Gazette .....	Printing .....	63 00
1890	" 31....	A. C. McClurg Co. ....	Books, etc. ....	55 84
1891	" 31....	G. E. Stecher .....	" .....	193 46
1892	" 31....	McIntosh Battery Optical Co. ....	Ivory balls .....	4 60
1893	" 31....	H. W. Rokker .....	Printing, etc. ....	48 75
1894	" 31....	National R'y Publication Co. ....	Railway guide .....	5 00
1895	" 31....	American Express Co. ....	Expressage .....	10 25
1896	" 31....	Pacific Express Co. ....	" .....	3 35
1897	" 31....	N. W. Graham .....	Expenses .....	20 27
1898	" 31....	J. M. White .....	" .....	12 25
1899	" 31....	A. H. White .....	" .....	1 05
1900	" 31....	Western Union Telegraph Co. ....	Telegrams .....	8 85
1901	" 31....	T. J. Barrill .....	Salary for July, 1894. ....	266 66
1902	" 31....	S. W. Shattuck .....	" .....	166 66
1903	" 31....	E. Snyder .....	" .....	166 66
1904	" 31....	N. C. Ricker .....	" .....	166 66
1905	" 31....	G. E. Morrow .....	" .....	83 33
1906	" 31....	I. O. Baker .....	" .....	166 66
1907	" 31....	S. A. Forbes .....	" .....	83 33
1908	" 31....	C. W. Rolfe .....	" .....	166 66
1909	" 31....	D. McIntosh .....	" .....	150 00
1910	" 31....	A. N. Talbot .....	" .....	166 66
1911	" 31....	A. W. Palmer .....	" .....	166 66
1912	" 31....	F. F. Frederick .....	" .....	150 00
1913	" 31....	S. W. Parr .....	" .....	150 00
1914	" 31....	H. J. Barton .....	" .....	166 66
1915	" 31....	Chas. M. Moss .....	" .....	166 66



*List of Warrants—Continued.*

No.	Date.	To whom.	For what.	Amount.
	1894.			
1916	July 31	D. K. Dodge	Salary for July, 1894	\$166 66
1917	" 31	F. M. McMurry	" "	166 66
1918	" 31	L. P. Breckenridge	" "	166 66
1919	" 31	G. W. Myers	" "	125 00
1920	" 31	Katharine Merrill	" "	100 00
1921	" 31	D. W. Shea	" "	150 00
1922	" 31	W. G. Krohn	" "	150 00
1923	" 31	Elizabeth Cooley	" "	138 33
1924	" 31	David Kinley	" "	150 00
1925	" 31	J. D. Bruner	" "	150 00
1926	" 31	H. E. Summers	" "	125 00
1927	" 31	J. M. White	" "	108 33
1928	" 31	W. H. Van Dervoort	" "	125 00
1929	" 31	E. J. Townsend	" "	116 66
1930	" 31	E. K. Hall	" "	125 00
1931	" 31	G. W. Parker	" "	115 00
1932	" 31	G. E. Howe	" "	150 00
1933	" 31	G. W. McCluer	" "	15 00
1934	" 31	W. L. Pillsbury	" "	100 00
1935	" 31	C. Bennett	" "	83 33
1936	" 31	Lillie Heath	" "	45 00
1937	" 31	Elva Blount	" "	45 00
1938	" 31	A. B. Baker	" "	70 00
1939	" 31	L. G. Lathrop	" "	30 00
1940	" 31	H. C. Forbes	" "	83 33
1941	" 31	Mary J. Snyder	" "	62 50
1942	" 31	W. G. Johnson	" "	100 00
1943	" 31	Frank Smith	" "	100 00
1944	" 31	Mrs. Frank Smith	" "	25 00
1945	" 31	Adolph Hempel	" "	25 00
1946	" 31	Miles Newberry	Services at biological station	46 50
1947	" 31	Emier & Amend	Chemical supplies	49 72
1948	" 31	Geo. F. Lasher	Postal guide	1 50
1949	" 31	Am. Ass'n. for Ex. Univ. Teach'g	Subscription	2 50
1950	" 31	Pantagraph Printing Co.	Binding	93 22
1951	" 31	A. W. Palmer	Salary, summer school	99 50
1952	" 31	S. W. Parr	" "	49 75
1953	" 31	F. M. McMurry	" "	149 25
1954	" 31	David Kinley	" "	134 33
1955	" 31	George W. Myers	" "	111 94
1956	" 31	Katherine Merrill	" "	89 55
1957	" 31	W. O. Krohn	" "	134 33
1958	" 31	H. E. Summers	" "	111 94
1959	" 31	Anita M. Kellogg	" "	74 63
1960	" 31	Alice M. Barber	" "	44 78
1961	" 31	I. H. Rapp	Salary, July, 1894	130 00
1962	" 31	Elias Kirby	Sand	8 60
1963	" 31	T. R. White, Jr.	Gas, June, 1894	31 40
1964	" 31	Walker & Mulliken	Cord, basket, etc.	2 35
1965	" 31	E. H. Sargent Co.	Bottles	4 25
1966	Aug. 4	N. W. Graham	Expenses to board meeting	16 07
1967	" 4	Alex. McLean	" "	21 82
1968	" 4	Henry Raab	" "	7 50
1969	" 4	N. B. Morrison	" "	52 65
1970	" 4	J. E. Armstrong	Expenses to board and com. meeting	57 42
1971	" 4	Isaac S. Raymond	Expenses to board meeting	3 25
1972	" 4	F. L. Bills	Postage	20 00
1973	" 4	J. M. Macy	Piano repairs	2 50
1974	" 4	John Marten	Part of salary, July, 1894	19 23
1975	" 4	S. W. Shattuck	Services as disbursing agent	50 00
1976	" 4	H. C. Forbes	Petty expenses	3 70
1977	" 4	L. V. Manspeaker	Oils, lamp chimneys	9 01
1978	" 4	The Harris Publishing Co.	Subscription	2 00
1979	" 4	C. A. Hart	Salary, July, 1894	52 50
1980	" 4	Maltby & Wallace Co.	Repairs	56 77
1981	" 4	Thomas Mfg. Co.	Paint	4 80
1982	" 4	Illinois Soc. of Eng. and Survey'rs	Advertising	10 00
1983	" 4	Mackey Paint Paper Co.	Paper	1 95
1984	" 4	The Champaign Plumbing Co.	Repairs	2 00
1985	" 4	G. E. Stechert	Books	162 59
1986	" 4	Richards & Co.	Chemical apparatus and supplies	1,196 27
1987	" 4	Illinois Central R. R. Co.	Freightage	4 48
1988	" 4	C. C. C. & St. L. R'y.	" "	12 69
1989	" 4	Wabash R. R. Co.	" "	4 85
1990	" 4	American Express Co.	Expressage	7 45
1991	" 4	Pacific Express Co.	" "	4 40
1992	" 4	Union Mfg. Co.	Water, 3 months, October 1, 1894	125 00
1993	" 4	The T. H. Clement Co.	Band saw, etc.	89 43

*List of Warrants—Continued.*

No.	Date.	To whom.	For what.	Amount.
1894.				
1994	Aug. 4....	Electric Appliance Co.....	Apparatus.....	\$5 00
1995	" 4....	General Electric Co.....	Arresters, etc.....	38 50
1996	" 4....	Library Bureau.....	Library cards.....	32 95
1997	" 4....	C. W. Spalding.....	Treasurer, individual expenses.....	116 72
1998	" 4....	Yeager & Schultz.....	Amount due on building contract.....	6,808 58
1999	" 4....	Malby & Wallace Co.....	" " heating contract.....	4,000 00
2000	" 4....	George L. Batchelder.....	" " electric wiring con't.....	500 00
2001	" 8....	J. E. Armstrong.....	Expenses to board on committee work.....	12 66
2002	" 8....	F. L. Bills.....	Postage.....	40 00
2003	" 8....	Western Union Telegraph Co.....	Telegrams.....	4 71
2004	" 8....	S. R. Roberts.....	Manual of Conchology.....	6 00
2005	" 8....	Arthur Pillsbury.....	Making diagrams, etc.....	101 00
2006	" 8....	Andrews & Johnson.....	Fan.....	57 50
2007	" 8....	J. F. Tenney.....	Stamp.....	14 45
2008	" 8....	Ginn & Co.....	Books.....	2 00
2009	" 8....	Francis J. Garrison.....	The Liberator.....	35 50
2010	" 8....	G. E. Stechert.....	Books.....	181 89
2011	" 8....	A. C. McClurg & Co.....	" ".....	293 52
2012	" 8....	Bullard & Gormley Co.....	Hardware.....	38 20
2013	" 8....	D. H. Lloyd & Son.....	Piano.....	190 00
2014	" 8....	A. W. Palmer.....	Salary, summer schools.....	33 83
2015	" 8....	S. W. Parr.....	" ".....	16 92
2016	" 8....	F. M. McMurtry.....	" ".....	50 75
2017	" 8....	David Kinley.....	" ".....	45 67
2018	" 8....	George W. Myers.....	" ".....	38 06
2019	" 8....	Katharine Merrill.....	" ".....	30 45
2020	" 8....	W. O. Krohn.....	" ".....	45 67
2021	" 8....	H. E. Summers.....	" ".....	38 06
2022	" 8....	Anita M. Kellogg.....	" ".....	25 37
2023	" 8....	Alice M. Barber.....	" ".....	15 22
2024	" 8....	Pay-roll of men.....	Labor, July, 1894.....	938 96
2025	" 8....	Pay-roll of students.....	" ".....	219 35
2026	" 31....	A. S. Draper.....	Salary, August, 1894.....	583 33
2027	" 31....	T. J. Burrill.....	" ".....	225 00
2028	" 31....	S. W. Shattuck.....	" ".....	166 60
2029	" 31....	E. Snyder.....	" ".....	166 66
2030	" 31....	N. C. Ricker.....	" ".....	166 66
2031	" 31....	G. E. Morrow.....	" ".....	83 33
2032	" 31....	I. O. Baker.....	" ".....	166 66
2033	" 31....	S. A. Forbes.....	" ".....	83 33
2034	" 31....	C. W. Rolfe.....	" ".....	166 66
2035	" 31....	D. McIntosh.....	" ".....	150 00
2036	" 31....	A. N. Talbot.....	" ".....	166 66
2037	" 31....	A. W. Palmer.....	" ".....	166 66
2038	" 31....	F. F. Frederick.....	" ".....	150 00
2039	" 31....	S. W. Parr.....	" ".....	150 00
2040	" 31....	H. J. Barton.....	" ".....	166 66
2041	" 31....	Chas. M. Moss.....	" ".....	166 66
2042	" 31....	D. K. Dodge.....	" ".....	166 66
2043	" 31....	L. P. Breckenridge.....	" ".....	166 66
2044	" 31....	G. W. Myers.....	" ".....	125 00
2045	" 31....	Katharine Merrill.....	" ".....	100 00
2046	" 31....	D. W. Shea.....	" ".....	150 00
2047	" 31....	W. O. Krohn.....	" ".....	150 00
2048	" 31....	Elizabeth Cooley.....	" ".....	133 33
2049	" 31....	David Kinley.....	" ".....	150 00
2050	" 31....	J. D. Brunner.....	" ".....	150 00
2051	" 31....	H. E. Summers.....	" ".....	125 00
2052	" 31....	J. M. White.....	" ".....	108 33
2053	" 31....	W. H. VanDervoort.....	" ".....	125 00
2054	" 31....	E. J. Townsend.....	" ".....	116 66
2055	" 31....	E. K. Hall.....	" ".....	125 00
2056	" 31....	G. W. Parker.....	" ".....	115 00
2057	" 31....	E. G. Howe.....	" ".....	150 00
2058	" 31....	G. W. McCluer.....	" ".....	15 00
2059	" 31....	C. Bennett.....	" ".....	83 33
2060	" 31....	Lillie Heath.....	" ".....	45 00
2061	" 31....	Elva Blount.....	" ".....	45 00
2062	" 31....	A. B. Baker.....	" ".....	70 00
2063	" 31....	L. G. Lathrop.....	" ".....	30 00
2064	" 31....	H. C. Forbes.....	" ".....	83 33
2065	" 31....	Mary J. Snyder.....	" ".....	62 50
2066	" 31....	W. G. Johnson.....	" ".....	100 00
2067	" 31....	Frank Smith.....	" ".....	100 00
2068	" 31....	Ernest H. Forbes.....	" ".....	35 00
2069	" 31....	W. L. Pillsbury.....	" ".....	100 00
2070	" 31....	L. P. Breckenridge.....	" ".....	62 50

*List of Warrants—Concluded.*

No.	Date.	To whom.	For what.	Amount.
	1894.			
2971	Aug. 31.	S. W. Shattuck.....	Salary, August, 1894.....	\$150 00
2072	" 31.	T. R. White, Jr.....	Coke, etc.....	13 00
2073	" 31.	Jenney Electric Motor Co.....	Motor.....	200 00
2074	" 31.	V. Beasley.....	Labor and material.....	10 50
2075	" 31.	G. W. McCluer.....	Expenses, August, 1894.....	16 55
2076	" 31.	N. W. Graham.....	Expense to committee meeting.....	29 00
2077	" 31.	R. P. Morgan.....	Expense to board meeting.....	14 58
2078	" 31.	H. E. Summers.....	Traveling expenses.....	11 78
2079	" 31.	Mrs. Frank Smith.....	Salary, August, 1894.....	25 00
2080	" 31.	Adolph Hempel.....	Labor.....	25 00
2081	" 31.	Miles Newberry.....	".....	46 50
2082	" 31.	C. A. Hart.....	Salary, August, 1894.....	62 50
2083	" 31.	John Marten.....	Salary, part of August, 1894, and expense.....	50 24
2084	" 31.	H. A. Surface.....	Work on reports.....	64 36
2085	" 31.	W. G. Johnson.....	Expenses.....	10 67
2086	" 31.	Fuller & Fuller Co.....	Glass.....	18 78
2087	" 31.	C. N. Clark & Co.....	Limestone cubes.....	5 00
2088	" 31.	Davidson & Sons.....	Marble.....	17 00
2089	" 31.	I. H. Rapp.....	Salary, part of August, 1894.....	25 00
2090	" 31.	McLane & Gunn.....	Blue print paper.....	1 56
2091	" 31.	W. D. Pence.....	Expenses.....	7 08
2092	" 31.	J. W. Booker.....	Stallion.....	63 33
2093	" 31.	Inter-state School Review.....	Advertising.....	3 00
2094	" 31.	E. O. Vaile.....	".....	9 00
2095	" 31.	Pantagraph Printing Co.....	Circulars and programs.....	46 50
2096	" 31.	J. W. Butler Paper Co.....	Envelopes.....	7 50
2097	" 31.	A. H. Andrew & Co.....	Settee castings.....	4 50
2098	" 31.	Maxwell & Mollet.....	Oil.....	1 15
2099	" 31.	C. C. Bailey.....	Repairs on pumps.....	2 00
2100	" 31.	T. Olsen & Co.....	Beam for testing machine.....	175 00
2101	" 31.	Urbana Courier.....	Advertising for coal.....	4 00
2102	" 31.	Champaign County Herald.....	Printing.....	63 35
2103	" 31.	Geo. E. Marshall & Co.....	Record book.....	5 00
2104	" 31.	Isaac Fielding.....	Postage.....	2 00
2105	" 31.	Robinson & Burr.....	Fittings, repairs, etc.....	82 71
2106	" 31.	Maltby & Wallace Co.....	".....	24 55
2107	" 31.	George Besore.....	Lumber, etc.....	121 05
2108	" 31.	The Nation.....	Advertising.....	2 85
2109	" 31.	Westcott Chuck Co.....	Chucks.....	27 50
2110	" 31.	Manning, Maxwell & Moore.....	Pulleys.....	6 63
2111	" 31.	F. E. Reed & Co.....	Engine lathe.....	541 00
2112	" 31.	A. L. Pillsbury.....	Construction diagrams.....	50 00
2113	" 31.	A. C. McClurg & Co.....	Books.....	423 52
2114	" 31.	G. E. Stechert.....	".....	38 00
2115	" 31.	R. S. Wilber.....	Drayage.....	54 65
2116	" 31.	L. P. Breckenridge.....	Supplies.....	17 90
2117	" 31.	F. L. Bills.....	Postage.....	75 50
2118	" 31.	Illinois Central R'y. Co.....	Freightage.....	50 86
2119	" 31.	C. C. C. & St. L. R'y. Co.....	".....	29 19
2120	" 31.	American Express Co.....	".....	28 39
2121	" 31.	Pay rolls of men.....	Labor, August, 1894.....	881 84
2122	" 31.	Pay rolls of students.....	".....	335 84
2123	" 31.	Mechanical department, U. of Ill.	Labor and material.....	219 21
2124	" 31.	Architectural department, U. of Ill.	".....	269 86
2125	" 31.	Architectural department, U. of Ill.	".....	1,028 94

*Financial Statement of the University of Illinois [not including State Laboratory of Natural History or the Agricultural Experiment Station] for the year ending August 31, 1894.*

RECEIPTS, SEPTEMBER 1, 1893—AUGUST 31, 1894.		
Balance .....		\$171,907 22
<i>From U. S. Appropriation—</i>		
For instruction and the facilities therefor .....		20,000 00
<i>From State Appropriations—</i>		
For salaries, library, repairs, etc. ....	\$60,000 00	
For erection of an engineering building .....	80,000 00	
For cabinets .....	500 00	
For taxes on Minnesota lands .....	2,901 14	
		143,401 14
<i>From other sources—</i>		
Interest .....	\$30,316 37	
Rents .....	1,576 35	
Fees of university students .....	13,805 00	
Fees of preparatory students .....	3,861 34	
Gross receipts of business departments and laboratories .....	13,063 73	
Bonds .....	5,000 00	
Miscellaneous .....	1,471 63	
		69,694 42
		<u>\$404,402 78</u>
EXPENDITURES, SEPTEMBER 1, 1893—AUGUST 31, 1894.		
<i>Of U. S. Appropriations—</i>		
Natural history department .....	\$96 12	
Architectural department .....	707 77	
Geological department .....	209 48	
Library .....	181 28	
English department .....	109 10	
Agricultural department .....	104 60	
Mechanical engineering department .....	3,093 13	
Veterinary department .....	52 53	
Testing laboratory .....	1,686 09	
Physical and electrical laboratories .....	2,991 76	
College of engineering .....	216 05	
Civil engineering department .....	1,101 79	
Zoological department .....	995 19	
Chemical laboratory .....	490 00	
Municipal engineering department .....	700 00	
Salaries for instructions .....	4,569 90	
		\$17,304 89
<i>Of State Appropriations—</i>		
Taxes on Minnesota lands .....	\$1,519 35	
Buildings and grounds .....	8,717 22	
Salaries for instruction .....	48,537 63	
Mechanical shops .....	1,793 74	
Museums .....	2,823 13	
Apparatus and material .....	6,028 82	
Library .....	4,578 37	
Laboratories .....	2,576 92	
Heating and furnishing Natural History Hall .....	5,284 84	
Erection of Engineering Hall .....	91,836 33	
		173,696 35
<i>Of other funds—</i>		
Board expense .....	\$1,661 34	
Salaries for instruction .....	21,028 93	
Salaries for services .....	7,895 43	
Buildings and grounds .....	1,860 70	
Fuel and lights .....	4,401 98	
Stationery, printing, and postage .....	2,361 84	
Preparatory school .....	2,945 39	
Gross expenses of business departments .....	12,687 92	
Water supply .....	500 00	
Furniture and fixtures .....	2,238 24	
Premium and interest on bonds .....	513 11	
Land purchase .....	4,500 00	
Heating apparatus .....	1,339 68	
World's Fair exhibit .....	1,364 13	
Summer school .....	1,532 75	
Incidental .....	801 90	
Biological station .....	607 49	
Miscellaneous .....	3,548 16	
		71,788 99
Balance .....		141,612 55
		<u>\$404,402 78</u>

*Financial Statement of the Illinois State Laboratory of Natural History, for the Fiscal Year ending June 30, 1894.*

RECEIPTS.		
Balance .....	\$710 31	
For field, office, and incidental expenses .....	1,500 00	
Improvement of library .....	1,000 00	
Pay of assistants .....	3,500 00	
Illustration of report of state entomologist .....	250 00	
Colored drawings of fishes of Illinois .....	600 00	
Publication of bulletins .....	500 00	
EXPENDITURES.		
For field, office, and incidental expenses .....		\$1,500 00
Improvement of library .....		1,000 00
Pay of assistants .....		3,500 00
Illustration of report of state entomologist .....		249 12
Colored drawings of fishes of Illinois .....		328 99
Balance .....		1,482 20
	\$8,060 31	\$8,060 31

*Financial Statement of the Agricultural Experiment Station, University of Illinois, for the Year ending June 30, 1894.*

RECEIPTS.		
Appropriated by congress .....		\$15,000 00
From State Board of Agriculture for analyses of fertilizers .....	\$60 00	
From station farm .....	879 08	
		939 08
		\$15,939 08
EXPENDITURES.		
Board expense .....	\$127 84	
Books and publications .....	347 41	
Botanical apparatus and supplies .....	47 08	
Bulletins and report .....	1,307 07	
Chemical apparatus and supplies .....	309 44	
Fertilizers .....	11 02	
Fuel and lights .....	187 60	
Furniture and fittings .....	12 80	
Incidental expenses .....	113 81	
Meteorological apparatus .....	25 67	
Printing, stationery, and postage .....	59 58	
Salaries .....	7,312 16	
Seeds and trees .....	101 12	
Tools and supplies .....	369 70	
Wages and teams .....	4,127 27	
Special expenditures on chinch bug, forage plant, dairying, drainage, and nitrogen experiments .....	540 43	
Other funds .....	\$545 54	\$15,000 00
Balance other funds .....	393 54	
		\$939 08
		\$15,939 08

## BIENNIAL REPORT OF THE ILLINOIS STATE LABORATORY OF NATURAL HISTORY.

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*To the Trustees of the University of Illinois.*

GENTLEMEN: In accordance with your requirement, as expressed in your action concerning the status of the State Laboratory of Natural History, taken June 8, 1892, I beg to submit the following report on the work of the Laboratory during the two years just passed.

The points of principal interest in our recent operations are: (1) the Columbian Exposition exhibit of the zoölogy of Illinois, made by the Laboratory in 1893 under the auspices of the State Board of World's Fair Commissioners, and the accumulations of material coming into our possession at the close of the exposition; (2) the establishment, near Havana, conjointly with the University, in 1894, of a biological station for the continuous investigation of the aquatic life of the Illinois River and its dependent waters; and (3) an elaborate experimental work done this year with measures for the destruction of the chinch bug, and especially for the dissemination of the contagious diseases of that insect, undertaken by the laboratory staff, with the coöperation of the Agricultural Experiment Station.

### COLUMBIAN EXPOSITION EXHIBIT.

Our zoölogical exhibit, occupying 3,000 square feet of floor space in the Illinois State Building, at Jackson Park, was so planned as to present the main and most attractive features of the native animal life of the state, and at the same time to illustrate the operations of the State Laboratory of Natural History, and of the state entomologist's office associated with it. The exhibit was thus limited to specimens of the birds, fishes and insects of the state.

The relations of the Laboratory to the University of Illinois were shown by the position of this exhibit—immediately beside that of the university college of science, and opposite the exhibits of the college of agriculture and of the Agricultural Experiment Station, with only an aisle intervening.

The leading features of our display were a most excellent collection of the birds of the state and of their eggs; a series of entomological collections, scientific, educational, and economic; a model economic entomologist's office and insectary; and a nearly complete display of the fishes of Illinois in alcohol.

The entomological collections were shown in connection with the entomologist's office, which contained 540 square feet in one room, with an annex 20 feet long and 11 feet wide for an insectary. Into this room were put a select and carefully arranged equipment for first-class work in all departments of technical and economic entomology, sufficient for the use of a chief entomologist and two assistants, including furniture, a section of the laboratory library, a part of the library catalogue, record books with examples of the records, specimens prepared and arranged in the various ways useful for reference, apparatus for collecting and experiment, microscopes, a drawing equipment, and the like, making of the

whole a model establishment which, it was believed, might be profitably studied by any economic entomologist, foreign or American. In the insectary was placed apparatus of various kinds for the breeding and rearing of insects of injurious habit, and for the cultivation of the plants subject to insect injuries upon which experimental methods might be demonstrated.

The special exhibits made in this entomological department included a collection of sixteen hundred species of common Illinois insects, so selected as to present a correct general idea of the insect life of the state; separate collections of insects in their various stages injurious to corn, to wheat, to the apple, and to the strawberry in Illinois, together with characteristic examples of their injuries; a special exhibit of the food of one robin for one year, based upon studies made at the Laboratory and published in our laboratory bulletins; a set of the insects ascertained to have been eaten by birds; a similar series eaten by fishes; a set of butterflies arranged with a view to illustrating the geographical distribution of insect species in Illinois; and a set of Illinois insects illustrating the work of the laboratory in supplying entomological material to the high schools of the state.

The ornithological exhibit was made in four series: (1) A collection of the game birds of the state, mounted as dead game; (2) a series of biological groups mounted in various naturalistic attitudes, with natural accessories indicating habits, haunts, and the like; (3) a general collection of all the birds of the state, grouped according to their distribution within the state at different seasons of the year; and (4) a set of the eggs of the birds breeding in Illinois.

Our ichthyology was illustrated by one hundred and fifteen species of fish from various parts of the state, collected by the laboratory force and exhibited in alcohol.

To this general account the following statement may be added:

#### ORNITHOLOGICAL EXHIBIT.

Winter residents of southern Illinois.....	108 specimens
Winter residents of northern Illinois.....	44 "
Winter residents throughout Illinois.....	141 "
Summer residents of southern Illinois.....	38 "
Summer residents of northern Illinois.....	59 "
Summer residents throughout Illinois.....	207 "
Migrants passing through Illinois.....	77 "
Stragglers in Illinois.....	24 "
Common game birds of Illinois mounted as dead game.....	55 "
A group of wild turkeys mounted with naturalistic accessories.....	6 "
A group of prairie chickens mounted with naturalistic accessories.....	4 "
A group of crossbills mounted with naturalistic accessories.....	8 "
A group of yellow-bellied sapsuckers with nest and eggs.....	4 "
A pair of little green herons with nest and eggs.....	2 "
Total number of birds exhibited.....	775 "

One hundred and twenty-five clutches of birds' eggs representing as many species of birds nesting in Illinois were also shown; the total number of eggs in these clutches being five hundred and twenty-five.

## ENTOMOLOGICAL EXHIBIT.

	Pinned specimens	Vials.	Drawings.
Illinois insects injurious to the apple.....	340	166	57
"    "    "    corn.....	150	85	22
"    "    "    wheat.....	53	43	9
"    "    "    strawberry.....	52	20	13
Insects in the food of birds.....	195	24	
"    "    fishes.....	91	9	
Geographical distribution of Illinois butterflies.....	184		
Illinois insects as furnished to high schools of Illinois.....	459		
Common insects of Illinois—			
Dermaptera.....	4		
Orthoptera.....	215		
Platyptera.....	12		
Odonata.....	73		
Plectoptera.....	8		
Hemiptera.....	566		
Neuroptera.....	20		
Mecoptera.....	4		
Trichoptera.....	3		
Coleoptera.....	2,662		
Diptera.....	541		
Lepidoptera.....	1,058		
Hymenoptera.....	1,016		
Total.....	7,606	287	101

In addition to the above there were exhibited 3,000 specimens of Lepidoptera and Coleoptera, twenty boxes each, from the standard collection of the State Laboratory. Twenty-four racks of vials (about five hundred) of alcohol specimens were shown with these.

The special exhibit of the food of one robin for one year consisted of 5,481 pinned species of insects, eighty tubes—each fifteen inches in length—containing alcoholic specimens, and thirty-eight shorter tubes and vials of alcoholic specimens, besides vials and tubes containing fruit and seeds.

The total number of separate objects shown in these collections was 18,550.

The furniture of the entomologist's office comprised two office desks, four plain work tables, three tables with specimen cases, a table for reference books and record books, two small cases for specimens, a large bookcase, two reagent cases, one typewriting machine and desk, one letterpress and stand, a small printing press and case of type, a sink and four chairs.

In the bookcase was displayed a section of the library of the State Laboratory of Natural History, the books selected being mainly entomological, and including serial publications, periodicals, monographs, reference books, pamphlets, etc., to the number of about five hundred volumes. Complete sets of the publications of the Laboratory and of the State Entomological Reports were also displayed as one of the office table.

Under the head of working apparatus, there were shown in this room one compound microscope and accessories, two dissecting microscopes and accessories, two large microtomes, a complete outfit for collecting insects, sets of bottles, vials, and reagents for preserving insects, and apparatus for inflating larvæ, and that used in mounting and preserving insects.

In the insectary, adjoining the office room, were sixty large and small breeding cages with glass fronts and gauze sides; forty glass jars of various sizes and shapes, to be used as breeding cages; and two gauze-covered cages suitable for outdoor use. These were arranged on shelves and on a table covered with sand. There were also in this room a work table with an Arnold steam sterilizer, large culture jars and funnels, and other apparatus used in the culture of fungi causing insect disease.



The zoölogical display was made in accordance with detailed plans prepared by the director of the State Laboratory. The execution of these plans was confided to Mr. Charles F. Adams\* for the birds; and to Prof. H. E. Summers for the insects.

The material for the ornithological exhibit was chiefly obtained by special collections made for the purpose during the winter of 1891 and the spring and summer of 1892 by parties sent out from the laboratory, and mounted by Mr. Adams himself. As it was quite impossible to make a complete collection of the birds of the state within so short a time, the deficiencies remaining were supplied by selections made from the museums of the University of Illinois, at Urbana, and of the State Board of Agriculture, at Springfield, and by purchase of skins from taxidermists.

The entomological exhibit was likewise provided in part from special collections made by laboratory employés and by assistants especially engaged for the purpose, and in still greater part from the cabinets of the State Laboratory and of the University of Illinois.

The beautiful colored drawings, one hundred and one in number, distributed through the entomological exhibit to illustrate species too small to be well seen by the naked eye, were made at the State Laboratory by Miss Lydia M. Hart, the special artist of the establishment.

The ichthyological collections were all made during the season of 1893 by assistants sent from the laboratory, Mr. J. E. Hallinen, a student of the University, doing the greater part of the field and laboratory work.

It may be proper to place on record here some statement of the manner in which this exhibit was received by those best qualified to appreciate it.

In the *Auk*† for October, 1893, Dr. Frank M. Chapman, of the American Museum of Natural History, at Central Park, New York, writes in an article on "Ornithology at the World's Fair" that "Illinois was easily the leader in the department of local collections representing the bird life of a state or province." "Its collection," he says, "placed in the state building, is well mounted, and the method of arrangement is one which might well be followed in the display of similar collections." Elsewhere he says, that it is by far the best state collection that he has ever seen.

Dr. Robert Ridgway, curator of ornithology to the United States National Museum, writes of it also as "incomparably superior to any other state exhibit at the fair, and a very close competitor with the government exhibit." He says, "I do not see how, making due allowance for limited time and means, it could have been improved."

Equally flattering comments were made upon the entomological features of the exhibit by economic entomologists, both American and foreign, the collection of apple insects especially, and that exhibiting the food of a single robin for one year, attracting wide attention.

The entire mass of this material, excepting only a few birds borrowed from the museum of the University and seventy-one specimens from that of the State Department of Agriculture, was, at the close of the Exposition, transferred by the State World's Fair Commissioners to the Illinois State Laboratory of Natural History and removed to Urbana. The ornithological collection thus acquired I have placed in the museum of the University, so far as the cases there will contain them, and the remaining material is now in the collection room of the State Laboratory, in the basement of Natural History Hall.

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\*The sudden and wholly unexpected death of Mr. Adams, at Chicago, while engaged in the installation of this exhibit, to whose preparation he had devoted nearly two years of intense and unremitting labor, brought to a mournful and untimely end the promising career of an excellent naturalist and a most lovable man. Admirably equipped by his university education, by his very unusual artistic skill as a preparator of zoölogical material, and by his experiences of scientific travel in various parts of the world, he seemed at the beginning of a life of eminent usefulness to science and to the State.

†A quarterly journal, the organ of the American Ornithologists' Union.

## THE EXPOSITION AQUARIUM.

[This is the proper place to mention also a very important gift made to the Laboratory by the United States Commissioner of Fish and Fisheries, Hon. Marshall McDonald, at the close of the Exposition.

Under authorization of your honorable body, as recorded in your proceedings for November 16, 1892, I accepted an appointment as director of the aquarium exhibit of the Commission at the Columbian Exposition, taking charge Jan. 1, 1893, and continuing to serve in that capacity to the close of the Exposition, October 31st. At this latter date, the living inmates of the aquarium comprised representatives of fifty-two species of marine and sixty-two species of fresh water animals—about 2,500 specimens in all.

It was the earnest wish and hope of the Commissioner and myself that the maintenance of this live exhibit at the exposition—of which it was throughout one of the most attractive features—might result in the establishment at Chicago of a permanent aquarium and biological station; and to this end I was authorized in October to offer the contents of the tanks in the aquarium building, with some unimportant exceptions, first to the trustees of the proposed Columbian Museum, and, second, to the South Park commissioners of Chicago, under such conditions only as would secure the maintenance of the establishment and its development as a popular aquarium and a station for scientific research. This offer I made to the trustees of the museum October 12th, and more fully October 23d in the following letter, addressed to Mr. Sidney C. Eastman, secretary of the board:

\* \* \* "I beg to add to the representations of my letter of October 12th this formal tender, to the trustees, of the present living contents of the aquarium tanks (together with the supply of sea water in circulation), with the exception of the sea anemones, the viviparous perch, and the specimens of the various species of trout, which are reserved by the commissioner for use elsewhere. This offer is subject to the following conditions, intended only to enable me to assure the commissioner that the purposes he has had in view in establishing and maintaining the aquarium will be substantially secured:

"It is of course to be presumed and understood that if these collections are accepted, it will be with the wish and intention of maintaining them as a live exhibit for the public benefit on at least their present scale of number and variety. Such specimens as die in the aquarium during the next six months are to be placed in alcohol and turned over the Illinois State Laboratory of Natural History for distribution to the public high schools and state educational institutions, according to the law defining the duties of that institution.

"We beg also that the trustees will formally express their intention, which we are satisfied that they entertain, of using their best endeavors for the development of the aquarium as a scientific institution—a biological station, in fact—with the expectation of affording to scientific men, in due season and according to the apparent demand therefor, facilities for the study and experimental investigation of the plant and animal life of the fresh waters of this country. To this end we believe it indispensable that the aquarium should be at all times under the general supervision of an experienced scientific biologist, capable of rightly shaping its general policy, and competent by training and ability to utilize for the advancement of science the abundant opportunities for observation and experiment which such an establishment must afford.

"The very short time now available for the organization of an aquarium staff qualified and prepared to take charge of this highly perishable material, crowded as this time must be with an overwhelming multitude of equally urgent affairs, leads me further to request that we may be assured of the appointment, for a period of six months, of an expert superintendent and experienced assistants who shall be acceptable to the commissioner, or his representative, as in every way competent and sufficient

for the care of this material under the circumstances existing and soon to ensue. The destructive consequences to our delicate and perishable collections which must follow upon even a temporary mistake in this matter, and the unfortunate complications likely to arise if a wrong beginning were made, lead us to ask that our judgment—greatly enlightened as it has been by the season's experience with the present aquarium plant—may thus be allowed due weight in the selection of the temporary aquarium staff, upon whom the care of the material for the winter will fall. As this is perhaps the most difficult and important, and at the same time the most urgent, feature of the proposed arrangement, I have anticipated the action of the trustees so far as to get the consent of the Commissioner to the continuance—for some months if desired—of one of the present aquarium superintendents, a regular employé of the fish commission, to whom the commissioner is willing to give leave of absence for a time to enable him to help over the emergency. I have also ascertained that all the present aquarium assistants, who are now a body of picked and trained men, thoroughly acquainted with the situation and their duties, would be willing to continue—at least for a time—in their present employment. The existing organization can thus be carried over, without a break, in a way to secure the safety of our material for the winter, and to give the trustees ample time to mature a permanent organization and select a satisfactory staff.

“So far as the general zoölogical supervision of the aquarium is concerned, I beg to say that it will be a pleasure to me to serve the trustees temporarily in this matter, with the understanding that I shall be relieved as soon as a satisfactory selection of a permanent director can be made.

“The foregoing statement contains all the conditions precedent to a transfer. It will be seen that they are intended merely to find a basis of agreement between Commissioner McDonald and the trustees of the Columbian Museum as to the general purposes and policy of the aquarium, and to secure the safety of the collections during the period of readjustment and reorganization.

“I should add as an item of information, which may be of interest to you, that it is now agreed that in case the arrangement here proposed is not made, the collections shall be placed in charge of the Illinois State Laboratory of Natural History (of which I am director) for distribution to the public high schools and educational institutions of the State of Illinois. I very much prefer, however, such a disposition of them as may result in a permanent, living, active scientific institution of the first class, so related and supported as to give us a fair assurance of its development in accordance with the importance of its field and the greatness of the city which it will represent.

“I am further authorized by Commissioner McDonald to say that if such an institution be provided for in Chicago, he will be glad to undertake to establish in connection with it a first-class fishcultural station of the U. S. Fish Commission, on condition that grounds can be found for such an establishment. If this idea were carried out, we should have, practically in one institution, a popular aquarium of the first class, a biological station maintained in the interests of science, and a fish commission station devoted to the practical application of aquatic zoölogy. Such an association of kindred undertakings would greatly reduce the cost of maintaining each, as many of the facilities and much of the apparatus could be adapted to all three as readily as to one alone.

“I shall be glad to meet with the trustees, or with any committee appointed by them, for further consideration of this matter at any time they may suggest.”

The museum trustees were eventually obliged to decline the proposed gift, owing to a lack of funds secured and available for either immediate or permanent maintenance, and owing to the incompleteness of the museum plans and organization at that early date, and I therefore made an identical proposition to the South Park commissioners. In the mean-

time, in order to facilitate the final disposition of the aquarium material, and to make sure that it would be properly utilized in any event, an arrangement was made for its transfer, November 1st, to the State Laboratory of Natural History, and I was so notified October 25th by the following telegram from Commissioner McDonald:

*"To Professor Forbes, Champaign.*

I have determined, with one exception, which I have indicated to you, to turn over all the aquarium material to the State Laboratory of Natural History for such disposition as the director in his discretion may find best."

This telegram was followed next day by a letter from Dr. T. H. Bean, representative of the commission at Chicago, saying, "In accordance with instructions received from the commissioner yesterday, I will turn over to you all the aquarium materials except such as have been reserved by the Commissioner for transfer to Washington."

This tender was accepted by me October 30th, in the following terms:

"In reply to your favor of October 26th, notifying me that you are prepared, in accordance with the instructions of the Commissioner, to turn over to the State Laboratory of Natural History the specimens now in the Aquarium, with certain exceptions reserved by the Commissioner. I beg to say that I shall accept with pleasure, on behalf of the Laboratory, all of this material which I find suitable for use or distribution by us.

"I need not say that I recognize most gratefully the very great obligation conferred by the Commissioner upon the State Laboratory of Natural History, and upon the scientific and educational institutions dependant upon it in part for their supply of scientific material. Such specimens as I take possession of will be utilized to the very best of our opportunity for purposes of scientific study and instruction."

Being notified October 31st, by one of the commissioners of the South Park, that that commission would probably accept the Aquarium on the conditions named, and would, at any rate, provide temporarily for its maintenance until formal action could be taken by them, I did not disturb it until November 7th, at which time the Park commissioners decided not to undertake to provide for its permanent support and development. I consequently then took charge of its contents for the State Laboratory; distributed such portion of them to the colleges and high schools of Chicago as they could utilize and care for; shipped the live marine material to Urbana for an experiment in aquarium maintenance, and placed the remainder in alcohol for subsequent distribution to scientific institutions and public high schools.

A most careful and persistent effort made at the University to maintain these marine animals in tanks of sea water by the aid of a mechanical aerating apparatus such as we used in Chicago, gradually failed through the unavoidable fouling of the water, due, apparently, to the lack of marine vegetation, which the exigencies of the time had made it impossible for me to provide in advance. The specimens dying were, however, preserved and added to the mass of material held for the supply of public schools and other educational institutions of the state.

My experiment here, and my much more valuable experience at the Exposition Aquarium in the thoroughly successful maintenance of marine animals under artificial conditions, have given me positive assurance that it would be quite practicable, within the limits of a reasonable expenditure, to maintain, at this distance from the sea, a salt water aquarium continuously, year after year, in which the more hardy and interesting forms of marine life could be exhibited for the benefit of a general public, and likewise for that of university students. I desire to commend this matter very earnestly to the attention of the trustees, especially as no university in America not in the immediate vicinity of the sea is at present doing anything whatever in this direction. The maintenance of a fresh water aquarium, although more difficult than that of a marine

exhibit, would be in many respects more convenient, and in every way equally useful. The two sorts of collections could, of course, be readily combined in the same establishment. This enlargement of our facilities would be particularly helpful as an apparatus for experimental investigation in connection with the biological station on the Illinois River, now maintained jointly by the State Laboratory and the University of Illinois. I suggest it to you for consideration in connection with plans for a university museum building—with which it might best be associated both in management and construction.

#### THE BIOLOGICAL STATION.

I have next to report the establishment last spring, in leased quarters on the Illinois River, at Havana, of an Aquatic Biological Station, jointly maintained, throughout the season, by the University of Illinois and the State Laboratory of Natural History.

This station was opened April 1st, under authority of the trustees of the University given in your action on a communication submitted by me to your committee on instruction March 2, 1894, and printed in part in the proceedings of the board for March 13th (p. 222). As the appropriation made by you to this end from the university funds was not immediately available, the station work was carried by the State Laboratory until July 1st, and the resources of the laboratory will also be further drawn upon, as may be necessary, for its support until the legislature may have had time to act upon our request for the means of future maintenance.

As this establishment is unique in this country, and is in some important respects the only institution of its kind in the world, I shall feel obliged to enter into some detail concerning its purposes, organization and operations. Since it is now, and in my judgment, should continue to be supported jointly by the University and the Laboratory, I can best report upon it here from both these points of view.

The station depends for its establishment, perpetuation, and development on the acceptance of the following general ideas: That it is a part of the office of a university, properly so called, to promote the progress of pure science; that an institution whose scientific work is closely limited to the economic field may be an industrial school, but can not be a university; that a state institution both educational and scientific in its character should stand in the closest possible relation to the general public welfare, and hence should work out in every direction the application of the results of its investigations to industrial and educational affairs; and that a state institution of this character should help especially to make the people of the state acquainted with the state itself.

The general objects of our station are to provide additional facilities and resources for the natural history survey of the state, now carried on, under legislative authorization, by the State Laboratory of Natural History; to contribute largely to a thoroughgoing scientific knowledge of the whole system of life existing in the waters of this state, with a view to the economic as well as educational applications, and especially with reference to the improvement of fish culture and to the prevention of a progressive pollution of our streams and lakes; to occupy a rich and promising field of original biological investigation hitherto largely overlooked or neglected not only in America but throughout the world; and to increase the resources of the zoölogical and botanical departments of the University by providing means and facilities for special lines of both graduate and undergraduate work and study for those taking major courses in these departments.

The station differs from most of the small number of similar stations thus far established in this country in the fact that its main object is investigation instead of instruction, the latter being a secondary, and at present an incidental, object only. It has for its field the entire system of life in the Illinois River and connected lakes and other adjacent

waters; and it is my intention to extend the work as rapidly as possible to the Mississippi River system, thus making a beginning on a comprehensive and very thoroughgoing work in the general field of the aquatic life in the Mississippi Valley, in all its relations, scientific and economic.

The special subject which I have fixed upon as the point of direction toward which all our studies shall tend, is the effect on the aquatic plant and animal life of this region produced by the periodical overflow and gradual recession of the waters of these great rivers—phenomena of which the Illinois and Mississippi rivers afford excellent and strongly marked examples. The field is entirely fresh, no such investigation having been before undertaken anywhere in the world. It is highly interesting and important, including in its scope very nearly every topic concerning the life of our waters which in any way interests the biologist or the practical man; and it is one for whose investigation we are perhaps better prepared by experience, equipment, purposes and associations, than any other institution or group of naturalists in the country.

As an incidental, but by no means unimportant, result of our work, we shall accumulate the material for a comparison of the chemical and biological conditions of the waters of the Illinois River at the present time and after the opening of the Chicago drainage canal.

The practical importance of our undertaking, as affording the only sound basis for a scientific fish culture, is fully recognized by the highest American authority in this field. In a recent letter on this subject, Hon. Marshall McDonald, United States Commissioner of Fish and Fisheries, says:

“I have carefully gone over the plans of the biological station proposed by you, and am particularly struck with the comprehensiveness of the plan of work to be undertaken. The knowledge to be obtained by such investigation as you contemplate is absolutely necessary as a foundation upon which to build an intelligent, rational administration of our fishery interests. A knowledge of life in its relation to environment is an important subject which biological investigators have not heretofore sufficiently dealt with, but which, it seems to me, is necessary in order to give practical value to special studies of the different species. After all, it is the relation and interdependence of life in the aggregate, and of the conditions influencing it adversely or otherwise, that mainly concern those who are seeking to apply scientific methods of investigation to economic problems.

“I need not tell you that you may count on the Commission for any coöperation and aid that we may be able to give you in this direction, which, looked at from a purely economic standpoint, I consider of the utmost importance.”

The station will also serve as a center of interest and activity for university students engaged on zoölogical and botanical subjects, and will in this way supply a most serious deficiency in our equipment, the disadvantages of which I have long deplored. Not many years ago biological instruction in American colleges was mostly derived from books; of late it has been largely obtained in laboratories instead; but several years' experience of the output of the zoölogical college-laboratory has firmly convinced me that the mere book-worm is hardly narrower and more mechanical than the mere laboratory grub. Both have suffered, and almost equally, from a lack of opportunity to study nature alive. One knows about as much as the other of the real aspect of living nature, and of the ways in which living things limit and determine each others' activities and characters, or in which all are determined by the inorganic environment. I have been particularly struck with the insufficient preparation of the ordinary graduate from laboratory courses in zoölogy for the work of a special instructor in the public schools. He cannot be an intelligent guide and teacher in the field; and he commonly has no command of apparatus and methods of experiment calculated to make his pupils acquainted with the system of the living world.

The immediate and pressing problem of the biological instructor is to provide an equipment and to work out methods by means of which his students may be brought into helpful contact with this world of life while it still lives, and by which they may be enabled to investigate experimentally the problems of mutual influence and relationship which come under the general head of what is now known as biological oecology. With the new station at Havana put on a firm foundation and liberally maintained, the University of Illinois will be better equipped in this particular than any other institution in America.

The utility of the station to the university summer school has already been mentioned. Possibly still more important is the opportunity which it will offer, when permanently established and fairly well equipped, to the independent student and investigator, zoölogical or botanical, who may desire to pursue his studies in the field covered by our operations. It is a part of the plan of organization and equipment of our Illinois River station to receive and assist in every practicable way advanced students and investigators of this description, from whatever place they may come.

Havana was selected by me as the site of the station because of several unique advantages offered by that locality. Streams and lakes illustrating practically all the typical Illinois river situations were to be found there, convenient of access from a central point and from each other. An extensive sandy bluff, commonly well shaded and oozing spring water at its foot, borders the river bottom on the east, and introduces several unusual features of interest to the biological oecologist, besides affording a clean and hard shore to work from, dry, shady, and well-drained camping ground, and an abundance of very pure cold water at all times of the year. No other situation at all suited to our purpose could have been selected which was less likely to endanger the health of our field parties, necessarily exposed to malarial infection as they are in midsummer and early fall by the nature and immediate surroundings of their work. The Havana division of the Illinois Central Railroad affords ready means of communication between the station and the University by trains running without change of cars, and thus makes possible the convenient transportation of live material to the University for study and experimental use, and also gives the students of the summer school a chance to avail themselves of the station equipment for experience in the field. The absence of any extraordinary source of pollution to the river water nearer than Pekin, thirty miles above, and the neighborhood of the field operations of the U. S. Fish Commission at Meredosia, fifty miles below, were likewise points in favor of this location. The summer's experience there has satisfied me that no mistake was made in this respect, but that, on the contrary, the vast abundance and great variety of plant and animal life in the river at that point, and especially in the bottom-land lakes connected with the stream in all stages of water and completely submerged by it in times of overflow, make this locality one of the very best possible for my purposes.

The work was provided for this year in three well-placed rooms in the town itself and in a "cabin boat" on the Illinois river, both furnished from the laboratories and libraries of the University and the State Laboratory of Natural History with everything necessary to first-class work in the collection, preservation, preparation, and systematic study of our material, together with some special pieces of apparatus, and other appliances, manufactured to order for this work.

The office and laboratory rooms were supplied with running water and electric light, and liberally provided with the usual equipment of a biological laboratory, consisting of compound and dissecting microscopes (Reichert and Zeiss), microtomes, biological reagents, to the number of one hundred bottles, water and paraffine baths, laboratory glassware, tanks for alcohol, a coal stove, a kerosene stove, laboratory tables for five assistants, and a working library of about a hundred and twenty volumes.

The cabin boat was used as a field headquarters, and stationed on Quiver Lake, two and a half miles above the town. It carried the seines, sounding lines, aerial and aquatic thermometers, dredges, surface nets, Birge nets, insect nets, plankton apparatus, and other collecting equipment, together with microscopes (Zeiss and Bausch & Lomb), reagents, a small working library, a large number of special breeding cages for rearing aquatic insects, and a few small aquaria. This boat was provided with sleeping accommodations for four men, and with a well-furnished kitchen.

I have myself exercised a general supervision over the station work, planning and following its operations as closely as my other responsibilities would permit. Mr. Frank Smith, instructor in zoology in the University, and zoological assistant of the State Laboratory, has been in immediate charge of the station since April 7th. He has been responsible for the execution of the details of the general plan, and for the technical work on fresh-water worms. Mr. C. A. Hart, curator of the collections of the State Laboratory, has done the entomological work of the station; Mr. Adolph Hempel has worked on protozoans and rotifers; Mrs. Dora Smith has served as microscopic technologist and has had charge of the rooms down town; and Mr. Newberry, of Havana, has kept the cabin boat with its equipment and done duty as a general assistant. I also had the services of Mr. Ernest Forbes, as general collector, for about six weeks of the vacation period. Extensive collections and studies illustrating the aquatic botany of the station have been made periodically at Havana by Professor Burrill, Mr. Clinton, Mr. Yeakel, and Miss Ayers, of the university botanical department. Chemical analyses of the waters from our principal collecting stations have been made at intervals at the chemical laboratory of the University by Professor Palmer, and steps have been taken to secure a good map of the locality. Miss Lydia M. Hart, artist of the State Laboratory, has been at Havana for natural history drawing, and Assistant Professor Summers, of the university department of physiology, spent a part of his vacation making a large series of photographs of the station and its surroundings for use in illustrating its reports.

The greater part of our field work was done on several regular stations, visited periodically throughout the year; two on the Illinois River, three on Quiver Lake, and one each on Phelps and Thompson's lakes.

The river, about five hundred feet wide at low-water mark, and at the highest water not less than four or five miles across, flows rather sluggishly\* over a muddy bed, with banks usually of mud or clay, peculiar, however, in the vicinity of Havana, and for several miles above and below that point, in the fact that the eastern and western shores are strongly contrasted in character. The former, as already said, is a bank of sand from twenty to sixty feet in height, with but little mixture of soil; the western border of a sandy plateau which stretches back from the river from twelve to fifteen miles. The face and summit of this slope, and a varying extent of country beyond, are commonly covered with upland forest trees, largely oak and hickory. At high-water mark this bluff forms the immediate bank of the river itself, but as the water recedes a sloping flat is uncovered, sometimes buried to a little depth in sand, but with clay beneath. Sometimes this flat widens out into a boggy or somewhat swampy belt or patch, thickly overgrown with underbrush and coarse, flowering plants. The river runs, in the Havana district, much nearer this bank than the opposite one, so that few of the bottom-land lakes lie between it and the sandy bluff. Where this bluff rests on the clay, multitudes of springs ooze forth, forming trickling rivulets, which frequently unite before they reach the river in streams a few feet across. This water is of surface origin, being practically the leachings of the sand bed mentioned. It is remarkably pure, cool, and abundant, entirely free from organic matter, and scarcely at all liable to malarial contamination.

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\* According to our observations made when the river stood nearly at low-water mark, the current was less than a mile an hour.



The opposite bank of the river is ordinarily a flat slope of black woodland soil, making when moist a treacherous mud, and springing up, when laid bare, with a dense growth of weeds and grass. This bank is subject to overflow, commonly twice a year, in late winter or early spring and again in June. During these periods of high water, all the bottom-land lakes are of course submerged, becoming distinguished again from the river itself only as the waters recede—perhaps after an interval of several weeks. Most of these lakes are either abandoned portions of old beds of the river more or less completely cut off from the present channel by silting up at either end, or they are similar portions of old beds of tributary streams.

Quiver Lake, in which the headquarters boat was placed, is such a portion of the river bed. It varies in length (when the water is low enough to define it clearly) from one and a half to two and a half miles, and has a usual width of about five hundred feet at low-water mark. It lies nearly parallel with the main river, into which it opens, at its lower or southern end, by about half its greatest width, even in the lowest stage of water. At its upper end it receives Quiver Creek, a stream some five to twenty feet across, which comes down for several miles across the sandy plateau, receiving some distance above its mouth the drainage of a region formerly filled with swamps. This lake lies at the foot of the sandy bluff, and is separated from the river on the west by a narrow tongue of low black land, either bare or covered with trees, according to its height above the usual water level.

Thompson's Lake lies wholly within the bottom-lands of the main river, and its banks are consequently everywhere low and flat. It is five miles in length by about half a mile in width at an average midsummer stage. When the water is moderately high it can be entered by skiffs from either end, but as the river falls the lake is shut off below, and connects with the stream only by a somewhat tortuous narrow channel (about two miles in length) at its northern end. Neither this nor Quiver Lake ever goes dry, the water in the deepest places being not less than three and a half or four feet during the driest seasons. Phelps Lake, on the other hand, is a pond about half a mile long by a fourth as wide, having neither inlet nor outlet after the overflow has receded, rarely drying up entirely, but not infrequently being reduced to a few shallow pools. It is completely surrounded by a bottom-land forest, and its bed is a mere shallow depression in the mud.

Beside our regular station work, occasional collections were made from various other waters, including Spoon River, Matanzas Lake,—three and a half miles below Havana, on the eastern side of the river—Clear Lake, Dogfish Lake, Mud Lake, Liverpool Lake, and Quiver Creek.

At each of the above regular stations thorough-going collections and careful observations were made at regular intervals of from one to three weeks, the time varying according to the nature of the station and the teachings of our experience. The mid-stream and mid-lake collections were of two kinds, qualitative and quantitative; the former made at surface and bottom, with towing net and dredge, and the latter with a plankton net of the finest bolting cloth (number 20), hauled from top to bottom at a regular and uniform rate and over an identical distance. As the waters in which we worked were much too shallow for profitable vertical hauls—often not more than five or six feet in depth—we tightly stretched a line one hundred feet long obliquely from bottom to surface, and drew the quantitative net along this line, to which it was suspended in a horizontal position by a carriage running along the line on wheels. The contents of the dredge were assorted by the aid of a set of bag sieves of netting and of finer cloth, fitted closely together as one apparatus by pushing the ring of one net inside that of another, the longest and finest bag being, of course, at the bottom, and the shortest and coarsest at the top, of the set. In the alongshore work we used hand nets of various sorts, the cone dredge of Professor Birge (commonly called the Birge net by us), sieves, forceps, and fingers, and occasionally a small minnow seine.

Everything collected was bottled and labeled after such methodical preparation as the case required, with the exception of the common and constant sorts, like the more abundant mollusks and insect larvæ. Concerning these, full notes of abundance, etc., were kept for each station at each visit.

Besides these regular collecting operations, the water temperatures were taken daily, a great variety of notes were made on relative numbers, habitats, habits, life histories, food, and behavior of aquatic and subaquatic animals; special collections of fishes and other forms were accumulated for a study of the food of the species under varying conditions; aquarium and breeding-cage operations were carried on, especially with aquatic insects and insect larvæ, for a study of life histories and the determination of immature stages hitherto undescribed; and critical and final microscopic studies of perishable forms (chiefly protozoans and rotifers) were carried forward.

The force engaged worked from the beginning of April to October 1st, under unusually difficult circumstances, with perfect fidelity and great intelligence, and with tireless energy and enthusiasm. At the latter date the cabin boat was brought in, and all the station party returned to Urbana except Mr. Hart, who remained two weeks longer. Most of the equipment remains at Havana in the laboratory rooms, and regular trips will be made to the station during the fall and winter, at intervals of about three weeks, with parties large enough to work every station thoroughly by all the methods above described. It is our intention to ship a large part of these winter collections alive to the University for study on our return from these brief trips.

The results of this first season's work are, of course, just beginning to appear. Indeed the problems to be solved in such a situation have scarcely more than dimly shown themselves as yet, but the promise is, nevertheless, already very interesting. Notable contrasts in kind and number appear between animals of the springy shore of river or lake and the muddy bottom only a few rods away on the other side, between river and lake; between Quiver and Thompson's lakes; between each of these and Matanzas Lake, and between all the other lakes and the temporary pond distinguished locally as Phelps Lake—contrasts sometimes easily comprehensible, as in the first instance given, where the cool spring water flowing in abundantly is evidently favorable to gammarids and asselli swarming there, and sometimes peculiarly puzzling, like that between Quiver Lake on the one hand, whose waters were choked in midsummer with a dense growth of aquatic vegetation, but contained fewer of the smaller animal forms (Entomostraca and the like) than the open current of the river itself, and Thompson's Lake on the other hand, where the water was relatively clear of aquatic plants but abounded in rotifers and Entomostraca. Still more curious was the contrast between the similarly situated and very similar lakes. Quiver and Matanzas, the waters of one loaded and clogged with plants and swarming with small mollusks and insect larvæ, and those of the other with scarcely a trace of even microscopic vegetation, and with a correspondingly insignificant quantity of animal life.

The course of events in a body of water like Phelps Lake, with its terrific seasonal vicissitudes, ranging from complete overflow and loss of identity to absolute drying away in now and then an exceptional year, is extremely interesting to the oecologist. The extraordinary instability of the system, one predominant and excessively abundant form quickly following another almost to the suppression of its predecessor, and all finally overwhelmed in a common doom, gives to the student an impression of an unhealthy organism, caught in the trap of an unfavorable environment, and hurrying through the stages of a fatal disease.

One of the surprises of the season was the abundance of minute life in the main stream, which, as already intimated, sometimes contained a greater abundance of animal forms than most of the lakes connected with it; and another was the relatively small difference between the

animals frequenting widely unlike situations in the same body of water. This is not the place, however, for a summary of our discoveries, and I must content myself with the additional statement that the freshness and fruitfulness of the field was well illustrated by the number of new forms found, especially among rotifers, worms, and insect larvæ.

The collections of the season, preserved for detailed study, are included under nine hundred and fifty-eight collection numbers, representing as many different lots of specimens. During the relatively quiet winter interval the station force will be more or less continuously engaged upon determination work and other laboratory studies, and the preparation of reports. Mr. Smith is studying now the oligochaete worms; Mr. Hempel continues his work on his rotifers and Protozoa; Mr. Hart is determining and describing insect larvæ and other aquatic insect forms, and I have made myself responsible for the Crustacea of our collections (with the assistance of Mr. C. F. Hottes, a fellow in the University) and for a general discussion of methods and results. The papers and reports embodying these studies will be printed in the bulletin of the Illinois State Laboratory of Natural History, with ample illustrations, now making by Miss Lydia M. Hart. So far as possible each general taxonomic paper will be preceded by a thoroughly practical synopsis of genera and species, illustrated by figures and typical forms, and intended to open up to the student and teacher of natural history in Illinois many most interesting and important parts of our local zoology which have hitherto been a sealed book to all except the expert with a special library at his command.

It will be seen that our season's work has fully opened up the field and shown us what is necessary to the continuance and development of our enterprise. I am entirely satisfied with the locality, and wish to occupy it next year in a more permanent manner, with a view to continuous work there for several years—probably not less than five. The present arrangements, while fairly satisfactory for this preliminary year, and clearly the best that could have been made, were very inconvenient in some respects, and wasteful of the time and strength of the station force. The cabin boat on Quiver Lake was two and a half miles from town, and it was usually necessary for all but one or two to make this trip back and forth each day in skiffs. We consequently urgently need a small temporary building on the lake sufficient to afford office and laboratory room and living accommodations for the whole force. This building could be made capable of removal elsewhere if desirable. The cabin boat leased this summer, although the best within our reach, was too small for our purpose and extremely uncomfortable in hot weather, the temperature in the working room often rising considerably above 100° Fahrenheit, and we should have a boat of this description built especially for our purpose. This boat should be equipped with a larger experimental apparatus than we had this year, useful for a study of life histories, for a demonstration of the effects of changed conditions on various species kept in confinement, and other similar work, by which alone clues may be found to the highly complicated and extremely difficult problems presenting themselves to the field observer. A great amount of time and strength has been consumed in rowing from station to station, where our regular collections were made, and we should have a small steam or naphtha launch or tug, able to weather the summer storms.

It has fortunately happened this year that changes in the university courses in my department have released the equipment and the corps of instruction of the zoological laboratories for the spring and autumn terms, and I have thus been able to borrow for the station a part of the university material and to assign to the station work a part of our force engaged for other purposes. This will usually be impossible hereafter, and considerable additions to the station equipment and a larger salary list will consequently be required. An estimate, in detail, of the appropriations necessary to make these improvements and carry out these plans has already been submitted to your committee on legislative appropriations, and I will here only suggest that it seems to me desirable that the

University and the State Laboratory should continue to share the labors and expenses of the station, since its work is equally advantageous to the departments of instruction and to the natural history survey of the state.

#### THE CONTAGIOUS DISEASES OF THE CHINCH BUG.

As an important part of the work of the State Laboratory, I have further to report the experimental operations of the present year, with methods for the prevention and arrest of ravages by chinch bugs in Illinois.

Since my first discovery, in 1882, of an unmistakable contagious disease of this insect, I have given prominent attention to the subject, greatly stimulated by observations made in 1887 and 1888 which demonstrated, quite to my satisfaction, the very important agency of these diseases in reducing to insignificance the most destructive outbreaks of this insect. It was in July, 1887, that I first found dead chinch bugs evidently killed by a second fungus parasite, *Sporotrichum globuliferum*, Speg., previously known as a botanical species, but not identified as the cause of the death of insects. The publication from time to time of the results of my observations and experiments strongly attracted the attention of economic entomologists to this subject, and published reports from other states—notably from Kansas—of the successful application of the germs of insect disease for the destruction of chinch bugs in the field aroused a widespread interest among farmers generally, frequently amounting to a confident belief that injuries by the chinch bug might be completely prevented by the distribution of diseased specimens into infested fields. The results of my own experiments did not by any means warrant this belief, but, as apparent at the beginning of the present season, had led me rather to conclude that the diseases at present known can be propagated among chinch bugs only under especially favorable circumstances, and that under those circumstances they are certain to appear spontaneously in our region, without very prolonged delay. Opportunities for experiment had been, however, too few in Illinois to warrant me in announcing this as a conclusion proved beyond dispute. I have consequently supplied to very many farmers of this state during the last two years numerous lots of infected chinch bugs, by means of which to introduce the contagious diseases of that insect into their own fields, but in so doing I have spared no pains to notify all concerned of the experimental character of the method, and of its hitherto variable, and as yet problematical, results.

A great increase of chinch-bug injury this season (1894) and the near prospect of very heavy loss throughout a large part of the state so greatly increased this demand upon me last spring for infected material, that I was no longer able to meet it from current appropriations at my disposal, and with the aid of my usual corps of assistants. I consequently suggested, early in June, to the authorities of the Agricultural Experiment Station, at Urbana, the idea of providing for more elaborate experiments in the field, and of supplying a limited amount of tested infection material for trial by farmers themselves. Under ordinary circumstances, of course, I should not have proposed this general supply to farmers until we had reached more definite and promising conclusions as a result of our own experimental work, but I was led to make this proposition this year by the following considerations:

1. I was not yet prepared to say positively that the contagious disease method applied as in Kansas would not take effect in very many cases if persistently followed up. As long as there was an appreciable chance that the farmers might thus save any considerable part of their crops this season by our aid, it seemed to me that they were entitled to the benefit of the doubt in favor of this procedure, especially as the expense of a general distribution would be, at most, a trifle compared with the great interests at stake.

2. The general credit which this method has received through the above mentioned publications, and through the agricultural papers and

daily press, and the firm belief which very many of our farmers already had in it, made it seem very likely that nothing would satisfy them except a chance to try it.

3. I was reasonably well satisfied from our own field observations and laboratory experiments that, under favorable weather conditions, this contagious disease might do an immense service to those parts of the state threatened with the destruction of their wheat and corn, and as we could not foresee the weather of the season, I thought it incumbent on us to take measures to derive the greatest possible advantage from weather favorable to the disease, if such weather should follow.

4. I wished, finally, to see for myself how generally and accurately the somewhat complicated directions necessary to an intelligent use of this method would be followed out by the average farmer, when greatly interested in the result.

This plan of experimentation and distribution was very promptly taken up and favorably considered by the executive committee of the Station board, and I was authorized to spend in this direction not to exceed \$200. previous to the meeting of the board June 1st, and subsequent to that meeting \$250 more. I consequently engaged the necessary assistants, enlarged our facilities, and published a general notice, to those interested, of my willingness to receive live chinch bugs and return infected ones in their place, using for this purpose the Associated Press, June 5, 1894, and sending out through the Experiment Station office a press bulletin on "The Chinch Bug in Illinois," dated June 7th. This offer was most eagerly accepted by a very large number of farmers, and we were presently very nearly overwhelmed—as were also the local express offices and the post-office—by packages of chinch bugs arriving from all parts of the state, and in all imaginable conditions.

In order to avail myself of the much larger experience of the Kansas Station, I followed precisely, at first, the infection methods there in use, depending upon an exposure of the chinch bugs to insects dead with the disease and covered with the characteristic fungus growth, and to make assurance doubly sure I had obtained a supply of material directly from the Kansas State University, although we had the same fungus in our own infection boxes at the time. Notwithstanding the great enlargement of our facilities, and the continuous expert attention which the whole subject received, especially from Mr. John Marten, who has had principal charge of our disease experiments for four years, the contagion did not spread rapidly enough in our boxes to make it possible to meet at once more than a small percentage of the demand. I found later that a part of this slow development was due to a difficulty which seems not to have been previously noticed by any one here or elsewhere, namely, the appearance in our infection boxes of swarms of minute mites which fed upon the fungus as fast as it was developed.

Next, observing that the thirteen-year locusts, which were rapidly disappearing, had many of them died with this disease, and bore a profuse growth of the characteristic fungus in excellent condition, I had a large quantity of these collected, and used dead locusts for distribution, accompanied in each case by chinch bugs which had been exposed to the infection.

Finally, having ascertained as a result of experiments made previously and also at the time, that the cultivated fungus grown upon a mixture of corn meal and beef broth, is in every way as effective for the destruction of chinch bugs as that obtained from the insects themselves, I had a large quantity grown artificially on this material, and used this also for distribution.

By these means I succeeded, by about the 20th of July, in supplying all who had sent requests up to the 10th of that month—a little over two thousand for the season. As I had issued a second bulletin June 30th, giving notice that it would be impossible to continue the distribution beyond July 10th, I considered the obligations I had assumed thus fulfilled, and the work was brought practically to an end.

Each lot of chinch bugs, living and dead, was accompanied by the following circular of directions for their utilization and of caution against hasty observation and inference:

STATE OF ILLINOIS,  
OFFICE OF THE STATE ENTOMOLOGIST,  
CHAMPAIGN, June 20, 1894.

DEAR SIR: I send you by this mail chinch bugs which have been successfully exposed to the white fungus disease of that insect, and are in a condition to convey it to others.

To propagate this disease in your field, make a tight, shallow wooden box, say, 24x36x6 inches, and place in it a layer of dirt half an inch deep, free from leaves or other rubbish. Moisten this dirt without making it muddy, and then put in a thin layer of green wheat or corn. Scatter the dead chinch bugs sent you over the bottom of the box, and shut up with them a quantity of live bugs from the field—as many as can well move about in the box without being anywhere more than one layer deep. Fasten the cover down tight, so that nothing can escape, and set the box where it will be protected from sun and wind. A cellar or a basement room is to be preferred.

Open the box daily and moisten its sides and contents (without making them muddy) when they begin to get dry, and also change the food as that in the box becomes yellow. When it is seen that the white mouldy bugs are becoming more numerous, probably in about three or four days, take a part of the bugs, dead and alive, out of the box, putting in fresh live ones to take their places, and close the box as before.

Those taken out should then be scattered through the infested field where the bugs are thickest—at the bases of the leaves in the corn fields, around the lower ends of the stalks, and the like. Make this distribution, by preference, in the evening, when the dew is on, or, still better, just after a rain, and repeat if dry weather follows. Continue these collections and distributions as above through the whole season, making certain each time chinch bugs are taken out that white ones are left in the box: and when winter comes put all the dead bugs remaining into pill boxes for use the following year.

SUGGESTIONS CONCERNING A STUDY OF THIS EXPERIMENT.

Those wishing to form an independent judgment of the practical value of this method of dealing with chinch bugs should take into account the following facts:

1. The white fungus causing insect disease requires moisture for its full development, and especially for the formation of the minute "spores" by whose dispersal the disease is conveyed from one insect to another. In times of severe drought it propagates slowly or not at all.
2. It takes effect on a weakened insect more readily than on one in full vigor; on the full grown chinch bug more easily than on the young; and hence most easily of all on spent adults which have already laid their eggs and are about to perish by the natural termination of their life period.
3. It is a native disease of the chinch bug, and never dies out entirely, but is likely to appear spontaneously over a large extent of country when conditions favorable to its development are long maintained.
4. Two generations of the chinch bug appear each year, and when each of these generations matures, the adult bugs commonly take wing and scatter, thus disappearing largely from fields or parts of fields heavily infested by them. Such dispersal has often been mistaken for a destruction of chinch bugs by disease. One generation matures shortly after wheat harvest and the other in late summer and in the fall.
5. The chinch bug sheds its skin four times while growing up, and the empty skins left by it are often mistaken for dead bugs—a mistake which has sometimes led to a false conclusion as to the effect of these infection

experiments. The cast skins never bear wings, as the insect does not moult after its wings are formed. They may further be readily distinguished from dead bugs by the fact that when passed between the thumb-nails they are readily seen to be empty shells without contents.

To judge intelligently of the effect of any attempt to introduce disease, the observer should examine very carefully in advance, the field in which the experiment is to be tried, and adjacent fields as well, to see whether bugs dead with the white fungus may not already be present. If the disease appears at the point where the infected chinch bugs are placed, he should repeat this general examination, and make sure that the disease may not have occurred spontaneously and without special reference to his experimental introduction of it. He should also notice whether young bugs (those without wings) are attacked by it, as, if they are not, it is quite likely that it is only carrying away those about to die of old age. On the other hand, it should be remembered that these especially susceptible adult bugs may afford the best means of securing a general dissemination of the fungus in the fields, where it may lie dormant for a considerable time, ready to spring into sudden activity when favorable weather conditions appear.

Advantage should be taken of every considerable shower, and especially of every long rain, to scatter the diseased bugs, and all fields under observation should be thoroughly inspected some two or three days thereafter.

Very truly yours,

S. A. FORBES,

*State Entomologist.*

I was also careful in every published statement or written communication on the subject to warn all against reliance upon this method to the neglect of other preventive or destructive measures, and emphasized in every way its purely experimental character.

In the meantime, experiments, carefully planned and closely followed up, were tried in the field by Mr. Marten and Mr. Johnson, both assistants of the office, by the distribution, in wheat and corn fields, of chinch bugs dead with disease and bearing the characteristic fungus in a fruiting condition. One such experiment was made on the experiment station farm, at Urbana, and others were set on foot at several points in southern Illinois, each being followed up by repeated visits made to ascertain the result. One and all of these personally conducted field experiments failed absolutely, no appearance of infection or trace of disease appearing in any of the fields into which the infection had been introduced by us, until the advent of wet weather in the fall. In southern Illinois the drought was everywhere severe in June and July, but at Urbana numerous seasonable showers fell.

I have little doubt that substantially the same unfavorable result followed upon nearly the whole mass of individual experiments made by farmers with the material sent from the Station. My previous experience with farmers' reports on this matter has led me, however, to attach but little importance to them, except where they can be sifted by cross-examination and personal inspection. Opportunities for fallacious observation are unusually numerous here, and the whole subject is beset with difficulties quite sufficient to remove it beyond the reach of the ordinary untutored and unskilled observer. Numerous visits were made by myself and my assistants to those reached by our distribution, infection boxes were examined, field experiments were inspected, and many interviews were had with farmers themselves. While in many cases their infection boxes were working well, we have found but three fields in which the disease was successfully propagated this year. Even those in which it had appeared spontaneously early in the season—and a number of such fields were found—were so thoroughly dried up in June and July that the further spread of the infection was checked, and the disease disappeared entirely. We have certainly established by this sum-

mer's work the practical inefficiency of this method for the prompt destruction of chinch bugs in very dry weather, under conditions prevailing in Illinois this year.

The three exceptional fields above mentioned were widely separated, one being in Farina, in Fayette county, one near Edgewood, in Effingham county, and the third near Odin, in Marion county. In all these cases the experiment was begun early in the season, and no result appeared until the late summer and autumn rains began—much too late to arrest or diminish injury to the crop of the present year. The number of chinch bugs dead with fungus disease in these fields this fall makes it quite possible, however, that they may give origin next spring to a general outbreak of the disease on the premises of these farmers which will do them important service. This is a conclusion less important than it would otherwise seem if it were not for the fact that during our latest tour of inspection made to the infested part of southern Illinois (October 5th to 9th) not a single field of corn was found anywhere, whatever may have been its situation or previous history, in which some trace of the disease could not be found among chinch bugs then remaining. It thus appears that conditions now are unusually favorable to an arrest next year of the prevailing chinch-bug outbreak, provided that the weather of the season is not too dry.

Far more promising and important than the above was a series of experiments made by us on the experiment station farm, July 10th to 15th, with methods for destroying chinch bugs as they leave infested fields of wheat at and shortly after harvest. By these experiments, thoroughly carried out under my own observation, I ascertained that chinch bugs can certainly be prevented at that season of the year from getting access to corn in any considerable number, and can be destroyed wholesale as they make the attempt to leave the wheat, at an expense far within the margin of economic operation. The method used was that which I have elsewhere characterized as the barrier method, the barrier in this case consisting of a strip of thoroughly pulverized earth with a deep dusty furrow running through it, in the bottom of which, at intervals of about twenty feet, postholes are sunk to a depth of a foot or more. This makes a practically complete barrier and trap when the weather is dry, except that it requires the supervision of a single man or boy for each eighty to one hundred rods. In wet weather a belt of coal tar must be poured along the bottom of the furrow, and renewed as may be necessary.

#### OTHER ECONOMIC INVESTIGATIONS.

Impressed by the serious and growing damage to nursery stock in central Illinois due to certain insects which infest the freshest leaves and the tips of the twigs, I began this year a series of systematic experiments with measures of prevention and remedy in the insectary and in the field, which I intend to carry forward year by year until a definite result is reached. Similar work on grass insects was also begun last fall and continued for a time this spring. A study of the scale insects of the state has been taken up by my assistant, Mr. W. G. Johnson, and measures have been taken for a thorough investigation of insect injury to grain and manufactured products in elevators and mills. An elaborate article by Mr. Johnson is now ready for the press, on the Mediterranean Flour Moth—a pest somewhat recently introduced in America, which has proved elsewhere capable of enormous and almost uncontrollable mischief in flouring mills.

#### PUBLICATIONS.

The final preparation for the press of my biennial entomological report for 1891 and 1892 was delayed by exposition engagements, and by other circumstances beyond my control. It is, however, now in the hands of the printer, and the report for 1893 and 1894 is far advanced toward



completion. It will doubtless be ready for the press at the usual date. The same circumstances have delayed the publication of the second volume of the series of final reports on the zoölogy of the state, that concluding Mr. Ridgway's contribution to the ornithology of Illinois. It now awaits only the copying of certain plates, the originals of which were destroyed by fire in Springfield.

Additional papers, either prepared by the laboratory force and printed elsewhere or published in our own bulletin since my last report, are as follows: by the director of the Laboratory, "A Preliminary Report on the Aquatic Invertebrate Fauna of the Yellowstone National Park, Wyoming, and of the Flathead Region of Montana," "The Progress of Economic Entomology during the years 1891 and 1892," a "Presidential Address," read before the American Association of Economic Entomologists, August 14, 1893, and the "Report of the Director of the Aquarium of the United States Fish Commission at the World's Columbian Exposition;" by Professor H. Garman, "A Synopsis of the Reptiles and Amphibians of Illinois;" by Dr. F. W. Goding, "Bibliographical and Synonymical Catalogue of the Described Membracidae of North America;" by Prof. G. H. French, "Description of two New Deltoid Moths;" by Mr. W. E. Loucks, "The Life History and Distribution of the Prothonotary Warbler in Illinois;" and by Prof. C. W. Rolfe, "List of Altitudes in the State of Illinois."

#### REMOVAL OF LABORATORY.

Since my last report to you the State laboratory has occupied the rooms assigned to it in the new Natural History Hall of the University of Illinois, five on the first floor and two in the basement. These rooms are a director's office, 21 ft.x19 ft., a library room 32x22, an assistants' laboratory 36x21, a collection room 61x36, two large store rooms, and a dark room for photography. These rooms have now been completely fitted up, and provided with new furniture made to our order especially for our purposes. The insectary (a separate building) has also been thoroughly refitted during the present year, and its office room refurnished and more completely equipped.

#### LABORATORY STAFF.

The laboratory staff continues as in previous years, except that Mr. John Marten resigned August 15th, after more than six years of faithful service as field entomologist; that Mr. W. G. Johnson was appointed July 1st as assistant entomologist to the laboratory; and that Mr. Frank Smith, instructor in zoölogy, in the University has been assigned to the State Laboratory as assistant zoölogist for a part of his time, in place of assistant Professor Summers. Mr. C. A. Hart, who has heretofore been our office entomologist, has been placed in immediate charge of all the laboratory collections.

Respectfully submitted.

S. A. FORBES,  
*Director of Laboratory.*

## AGRICULTURAL EXPERIMENT STATION.

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PROFESSOR GEORGE E. MORROW, A.M., PRESIDENT BOARD OF DIRECTION.

An examination of the lists given below of articles published in the bulletins issued and of experiments carried on will give a good idea of the work of the Station for the two years ending June 30, 1894.

### LIBRARY.

The number of volumes and pamphlets entered upon our accessions catalogue in the library is 3,900. The number of bulletins is 1,983.

### PUBLICATIONS.

Twelve bulletins, No. 22 to 33, inclusive, and two annual reports have been published. The bulletins contained in all 296 pages. Thirteen thousand copies are printed and the circulation amounts to 12,500. Two annual reports contained, one 14 and the other 16 pages.

The bulletins contained articles as follows:

Bulletin No. 22, August, 1892, 16 pp. Experiments with Wheat, 1891-92.

Bulletin No. 23, November, 1892, 16 pp. Experiments with Oats, 1892.

Bulletin No. 24, February, 1893, 36 pp. Variations in milk.

Bulletin No. 25, April, 1893, 32 pp. Field Experiments with Corn, 1892.

Bulletin No. 26, May, 1893, 40 pp. The Forest Tree Plantation.

Bulletin No. 27, September, 1893, 4 pp. Some New Points in the Manipulation of the Babcock Milk test.

Bulletin No. 28, December, 1893, 24 pp. Grapes, Test of Varieties. A Grape Disease. Grapes, Methods of Training.

Bulletin No. 29, December, 1893, 48 pp. Orange Rust in Raspberries and Blackberries. A New Factor in Economic Agriculture.

Bulletin No. 30, March, 1894, 12 pp. Blackberries and Raspberries, Variety Tests, and Management.

Bulletin No. 31, March, 1894, 56 pp. Corn and Oats Experiments, 1893.

Bulletin No. 32, April, 1894, 8 pp. An Acid Test of Cream.

Bulletin No. 33, June, 1894, 4 pp. The Chinch bug in Illinois, 1892.

Alkaline Tablets for Testing the Acidity of Cream. Certified Tests of Dairy Cows.

### NEW WORK.

Upon recommendation of the board of direction of the Station, new work has been authorized as follows:

December 13, 1892.

1. To investigate economic methods of fattening heifers and dry cows in winter.
2. To compare stable and shed feeding of cattle in winter.
3. To investigate economic methods of wintering work horses.
4. To ascertain whether butter with the requisite commercial flavor can be had by churning sweet, ripened cream.

March 14, 1893.

To test the effect of fertilizers upon potatoes.

June 6, 1893.

1. Investigations concerning the growth of root tubercles on graminaceous plants.
  2. To try methods of protecting wheat from freezing and ice.
  3. To experiment with crimson clover in northern and southern Illinois.
  4. To experiment with the cow pea and red clover in southern Illinois.
- To investigate at the station the value of forage plants other than grasses and clovers.

March 13, 1894.

1. Investigations in vegetable physiology.
2. Experiments with garden vegetables.
3. Experiments with florists' plants.

EXPERIMENTS CONTINUED AND UNDERTAKEN.

The following table gives the number and title of each experiment that has been in hand during the year. In the first column to the right of each title is given the year when the experiment was begun; in the second, those which have been completed within the year are marked with a cross (x); in the third, the experiments in progress are marked the same way; and in the last column, is stated in which bulletin, or bulletins, a report upon the experiment may be found, if any has been published.

*Table Showing Experiments in Hand During Two Years.*

No. experiment...	Class and title of experiment.	When begun.....	Completed.....	In progress.....	Reported in bulletins No. ....
	<i>Field Experiments—</i>				
1	Corn, testing varieties .....	1887-88	x	x	4, 8, 13, 20, 25, 31
3	Corn, time of planting .....	"	x	x	4, 8, 13, 20, 25, 31
4	Corn, depth of planting .....	"	x	x	4, 8, 13, 20, 25, 31
5	Corn, thickness of planting .....	"	x	x	4, 13, 25, 31
6	Corn, planting in hills or drills .....	"	x	x	4, 8, 13, 25, 31
8	Corn, frequency of cultivation .....	"	x	x	4, 8, 13, 20, 25, 31
9	Corn, depth of cultivation .....	"	x	x	4, 8, 13, 20, 25, 31
10	Corn, effect of root-pruning .....	"	x	x	4, 8, 13, 20, 25, 31
12	Oats, quantity of seed per acre .....	"	x	x	3, 7, 12, 19, 23, 31
13	Oats, compact or loose seed-bed .....	"	x	x	3, 7, 12, 23
14	Oats, time of sowing .....	"	x	x	3, 7, 12, 23, 31
15	Oats, depth of sowing .....	"	x	x	3, 7, 12, 19, 23, 31
16	Grasses, comparison of varieties .....	"	x	x	15
17	Clovers, comparison of varieties .....	"	x	x	15
23	Rotation, university experiments continued .....	"	x	x	8, 13

Table Showing Experiments—Continued.

No. experiment....	Class and title of experiment.	When begun .....	Completed .....	In progress .....	Reported in bul- letins No.....
53	Wheat, effect of time and manner of harvesting.....	“	“	x	11, 22
62	Wheat, effect of fertilizers.....	1888-89	“	x	11, 17, 22
63	Wheat, methods of soil preparation.....	“	“	x	11
64	Wheat, large or small seed.....	“	“	x	“
65	Wheat, quantity of seed per acre.....	“	“	x	11, 17, 22
66	Wheat, time of sowing.....	“	“	x	11, 17, 22
67	Wheat, depth of sowing.....	“	“	x	17, 22
69	Wheat, effect of fertilizers upon.....	“	“	x	11, 17, 22
71	Corn fodder, effect of ripeness.....	“	“	x	31
84	Oats, testing varieties.....	“	“	x	7, 12, 29, 23
89	Corn, cross fertilization of.....	“	“	x	21, 25, 31
90	Corn, rate of growth.....	“	“	x	13, 20, 25, 31
116	Wheat, test of varieties.....	1890-91	“	x	17, 22
128	Oats, effect of time and manner of harvesting upon yield and chemical composition.....	1890	“	x	23, 31
134	Corn, effect of removing tassels.....	1891	“	x	20, 25
139	To improve and produce varieties of cereals.....	1891-92	“	x	“
140	Tests of sugar beets.....	“	“	x	“
142	Sorghum, test of varieties.....	1892-93	“	x	“
143	Corn, planting a mixture of varieties.....	“	“	x	“
144	Wheat, mixing varieties when sowing.....	“	“	x	“
145	Oats, mixing varieties when sowing.....	“	“	x	“
155	Forage plants other than grass and clovers, trials of.....	1894	“	x	“
156	Tile drainage, trials of in southern Illinois.....	“	“	x	“
<i>Feeding Experiments—</i>					
27	Cost of production of young steers.....	1887-88	“	“	9, 16
28	Cost of production of young colts.....	“	“	x	“
60	Pigs, comparison between corn, grass, and corn and grass in feeding.....	1888-89	“	x	16
146	Pigs, comparison between wheat and corn in feeding.....	1892-93	“	x	“
147	Pigs, effect upon of food of different kinds.....	“	“	x	“
148	Steers, effect upon of food of different kinds.....	“	“	x	“
149	Steers, fed with and without winter shelter.....	“	“	x	“
150	Cows, economic methods of feeding.....	“	“	x	“
<i>Dairying Experiments—</i>					
106	Milk tests, investigation of.....	1888-89	“	x	9, 18
122	Composite milk samples tested for butter fat.....	1891	“	x	16, 18
132	Milk production, how affected by a grain ration fed to cows on grass.....	“	“	x	24
135	Milk production, how affected by an increasing grain ration.....	1891-92	“	x	24
138	Milk, acidity of, requisite for highest product of churn, and methods of producing that degree of acidity.....	1891-92	“	x	32, 33
151	Variations in milk.....	1892-93	“	x	24
<i>Tree Culture—</i>					
31	Orchard, soil cultivation and management.....	1887-88	“	x	“
32	Orchard, soil fertilization.....	“	“	x	“
33	Apples, testing new varieties.....	“	“	x	21
34	Apples, testing new varieties by top-grafting.....	“	“	x	“
35	Apples, testing hardiness of root-grafted and double- worked trees.....	“	“	x	“
36	Pears, testing new varieties.....	“	“	x	“
37	Plums, testing new varieties.....	“	“	x	“
38	Cherries, testing new varieties.....	“	“	x	“
39	Forest trees, growing of.....	“	“	x	26
79	Testing and improving native fruits.....	1888-89	“	x	21
80	Testing the effects of stock and scion upon each other.....	“	“	x	“
91	Peach trees, winter protection of.....	“	“	x	21
101	Trees, protection of trunks.....	1889-90	“	x	21
102	Trees, protection from mice, rabbits and insects.....	“	“	x	“
114	Apple trees, methods of propagation by whole and by piece roots.....	1890	“	x	21
126	University experiment orchard.....	1887-88	“	x	“
127	Orchard, soil cultivation and management of young trees.....	1891	“	x	“

Table Showing Experiments—Concluded.

No. experiment...	Class and title of experiment.	When begun.....	Completed .....	In progress .....	Reported in bul- letins No .....
	<i>Vine Culture—</i>				
40	Grapes, testing new varieties.....	1887-88	x	x	21, 28
41	Grapes, methods of training.....	"	x	x	28
42	Grapes, soil treatment.....	"	x	x	21
	<i>Small Fruit Culture—</i>				
43	Blackberries, testing varieties.....	"	x	x	21, 30
44	Raspberries, testing varieties.....	"	x	x	21, 30
45	Strawberries, testing varieties.....	"	x	x	.....
46	Strawberries, method of management.....	"	x	x	.....
51	Strawberries, raising seedlings.....	"	x	x	.....
52	Raspberries, soil management.....	"	x	x	21, 30
123	Blackberries, method of management.....	1890	x	x	.....
	<i>Gardening—</i>				
48	Beans, testing varieties.....	1887-88	x	x	21
49	Sweet corn, testing varieties.....	"	x	x	4, 8, 13
104	Cucurbitaceous plants, except melons, tests of.....	1889-90	x	x	21
108	Potatoes, investigation of their diseases.....	1890	x	x	.....
109	Tomatoes, investigation of rot in.....	"	x	x	.....
136	Sweet corn, thickness of plantings.....	1891	x	x	21
141	Potatoes, test of varieties.....	"	x	x	.....
153	Potatoes, use of commercial fertilizers upon.....	1892-93	x	x	.....
154	Corn, use of commercial fertilizers upon.....	"	x	x	.....
157	Vegetables for the garden, trials of.....	1894	x	x	.....
	<i>Tree and Vine Culture—</i>				
55	Fungicides, use of.....	1887-88	x	x	15, 21
57	Insecticides, use of.....	"	x	x	.....
	<i>Miscellaneous—</i>				
73	Record of soil temperatures.....	1888-89	x	x	.....
76	Meteorological record from August 17, 1888.....	"	x	x	.....
92	Canada thistles, extermination of.....	"	x	x	12
93	Fruits, production of new varieties from seeds.....	"	x	x	.....
97	Vitality of seeds tested.....	"	x	x	.....
107	Woods, testing durability of.....	1889-90	x	x	.....
105	Investigation of a bacterial disease of corn.....	1887-88	x	x	6
120	Cross fertilization of plants, testing effects of.....	1890-91	x	x	21
125	Investigation of the deterioration of fruits and vegetables.....	"	x	x	.....
129	Investigation of red rust in blackberries and raspberries.....	"	x	x	29
152	Investigations concerning the growth of root tubercles on graminaceous plants.....	"	x	x	29
158	Chinch bugs, investigation of their contagious diseases.....	1894	x	x	33
159	Study of the life history and method of treatment of smut in broom corn.....	"	x	x	.....
160	Study of economic parasitic fungi of Illinois.....	"	x	x	.....
161	Study of histological structure of corn.....	"	x	x	.....
162	Study of the weeds of Illinois.....	"	x	x	.....



## THE HISTORY OF THE COLLEGE OF ENGINEERING. \*

By IRA O. BAKER, Professor of Civil Engineering.

We are gathered together to celebrate the beginning of a new era for the college of engineering of the University of Illinois. At the dawn of each new epoch there comes the demand for the historian who shall bring forth all that is valuable or instructive in past experiences and show the trend of the history he traces. On behalf of the faculty of the college of engineering it is assigned to me to describe briefly the pathway by which we have reached a hill-top in the history of this institution and interpret for you, if I can, the prospects for its future progress.

The work of the engineering college may be said to date from January, 1870, when Stillman W. Robinson became professor of mechanical engineering. In the published proceeding of the board of trustees there is evidence that the inauguration of the engineering department had received careful consideration by the regent and board. Reference is frequently made to a shop established almost as soon as instruction was started, but this shop occupied much the same relation to the University that the farmer's tool-room does to the work of his farm. It consisted of a few carpenter's tools in a small room cut off from a mule stable. The numerous reports of the regent and of the committees of the board show an earnest desire to do everything in their power to give instruction in the "mechanic arts," but there seems to have been no very definite conception as to the method of accomplishing this. Professor Robinson was elected December 13, 1869 and entered upon his work January 1st following. Ten days thereafter he addressed a communication to the board of trustees in which he forcibly presented the reasons for uniting theoretical and practical instruction, outlined his method of accomplishing this, and asked for an appropriation of \$2,000 for the purchase of certain tools and apparatus. The appropriation was promptly granted, the mules were driven out of the 24x36 building used as a shop and a stable, and the carpenters tools were moved to a second story added for that purpose. A steam boiler, an engine lathe, a few tools, and the partly finished castings for a steam engine were purchased and the professor, with the help of his students, proceeded to make a steam engine which had some novel features to adapt it to experimental purposes. In less than six months the shop was supplied with a fair equipment nearly all of which was the product of the shop itself.

Thus was opened the first distinctly educational shop in America. Seven years elapsed before another similar shop was opened in the United States, while now such instruction is offered at nearly all of the state institutions; and shops of a similar character, but of lower grades, are established in connection with the public schools of many cities. Viewed in the light of the experience of nearly a quarter of a century it is remarkable that in the first attempt the true principles of instruction in the school shop should have been so clearly conceived and so wisely carried out. The credit for the general conception doubtless belongs to the regent, Dr. Gregory, and possibly in some measure also to members of the board of trustees, but Professor Robinson should certainly have the credit for the details of the plan, and the clear preception of the principles to be observed.

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\* Read at the laying of the corner stone of Engineering Hall at the University of Illinois.

In 1871, less than a year after the opening of the shop, a legislative grant of \$25,000 for a new mechanical and military building and for additional machinery furnished the strongest evidence of the approval of the method of instruction employed.

From the very beginning two kinds of shop work were recognized, one educational practice, and the other remunerated labor. As the number of students increased the purely commercial work was discontinued, since the equipment and the time of the instructor were fully occupied in the purely educational work.

This work in the recitation and drawing rooms was equally as high in character as the shop work, although it was not as much of an innovation. At that time there were only three or four institutions offering instruction in mechanical engineering while now there are thirty-one colleges, besides numerous schools of lower rank. Professor Robinson resigned September 1, 1878, to accept a similar position at Columbus, Ohio. But whoever was in charge, the work was continued along the lines first marked out by Professor Robinson. Since the beginning of the present term the department has been under the direction of Professor Breckenridge, who gives abundant promise of not only being able to sustain the former high reputation of the department, but also to advance it.

#### ARCHITECTURAL DEPARTMENT.

Having glanced at the history of the mechanical engineering department let us inquire concerning that of a closely related department, architecture. The first instruction that had any direct relationship to architecture was given in the fall term of 1872, and consisted mainly of artistic picture making, and not much of that. The first real instruction in architectural subjects began in the fall of 1873, when the present incumbent of the chair of architecture Professor N. Clifford Ricker, was placed in charge of that department.

He immediately arranged a four years' course of instruction designed to prepare students for the profession of architecture. At that time there were but two colleges in this country giving instruction in architecture, and at present there are eight, but this institution has more architectural students than any two of them.

Time does not permit an adequate account of the self-sacrificing and earnest efforts of Professor Ricker in building up this department, but there is one fact which the occasion demands should be made public, that a modest man may have the honor justly due him. I have already said that Professor Robinson and the mechanical department deserve credit for the establishment of the first educational shop in the United States.

Professor Ricker may be given the honor of introducing into this country the so-called Russian system of shop practice. Professor Robinson's system consisted in setting a student to make some part or the whole of a machine. The system which Professor Ricker introduced consisted of a graded series of exercises in which the student learns the uses of the different tools in succession. In the first system, part of the attention is directed to the training of the student and part to the making of a machine; in the second, the whole attention is given to training the student. The latter system is now employed in all school shops in America except one. Dr. Runkle, of the Massachusetts Institute of Technology, at Boston, is credited with having introduced the Russian system of shop practice in America, a distinction he certainly never claimed for himself, and which unquestionably belongs to our own Professor Ricker.

Our architectural department is pre-eminent in another important particular. The fundamental idea of the course is that the architect should be, first, a safe and economical builder; second, a man of business capacity; and third, an artistic designer.



Nearly all architectural schools in the world consider artistic design of the first importance, and many of them entirely ignore matters of construction. Our course is planned to help a young architect in the whole round of his duties, and is not confined to one of the subordinate branches of his future employment.

A distinguished American architect, himself both an artist and a constructor, says that only one-twentieth of his time is devoted to artistic design, while nineteen-twentieths are given to construction, business affairs and office detail. The pronounced success of our architectural graduates proves that they have been well prepared for their chosen profession. I prophesy that when the evolution of the collegiate architectural course shall have been as fully worked out as is that of the civil and mechanical engineering courses, it will be found that the University or Illinois has again been a pioneer and marked the pathway in which others follow.

Now a few words about the

#### CIVIL ENGINEERING DEPARTMENT.

The first movements toward the establishment of schools of civil engineering in America sprang from the demand for competent engineers of railways consequent upon the rapid development of that system of transportation in the third decade of this century. The first school giving even a modicum of instruction in civil engineering is this country was established at Troy, N. Y., in 1826. It is interesting to note that at that time the word "engineer" had not come to mean anything in the popular thought except a military officer, and the term "civil engineer" had only recently been coined. The first graduates of a distinctively civil engineering course were graduated from the school at Troy in 1840. By the time the University of Illinois was opened the number of colleges giving instruction in civil engineering was so great, and the evolution of the best course of instruction was so far worked out, that all that was required in this department was to push forward as nearly as the funds available would permit along lines already well marked out. This condition and the limits on the speaker's time prevent a further consideration of the work of this department.

#### MINING ENGINEERING DEPARTMENT.

This department was not organized until 1885, although considerable instruction in mining had been given by instructors in other departments, and a few students had been graduated in mining engineering. At that date there came a considerable demand from the mining interests of the state for recognition in the curricula of the University, and in response to this demand a professor was appointed and a mining department, the equal of the other engineering departments, was organized at considerable expense. After a trial of four years without any considerable application for this course by students, the department was allowed to lapse.

After lying dormant two years it was resuscitated and a course for the special benefit of coal miners was developed. This effort met with no better response and the department was abolished. From statistics recently collected by the *Engineering News* it appears that there has been a most remarkable increase in the past twenty years, and particularly in the past ten, in the number of students pursuing mechanical, civil and electrical engineering, while there has been almost no increase in the number pursuing mining engineering.

This indicates that there is but little demand for a mining engineering course, and is one reason for the failure of that course here. A second reason is that Illinois is remote from any mining interests except that of coal, the mining of which in this state requires only the simplest methods.

## DEPARTMENT OF PHYSICS AND ELECTRICAL ENGINEERING.

This department was created four years ago, preceding which physics had been taught by the professors of mechanical and mining engineering successively, and instruction in electrical engineering had been considered incidentally in the mechanical engineering course. This institution was the third in the United States to give instruction in physics by the laboratory method, for the inauguration of which Professor Robinson should have the credit. The instruction in physics is a peculiarly important part of all engineering courses and I regret that time does not permit a more full discussion of some features of this work.

In offering a course in electrical engineering the University of Illinois was comparatively late in the field and hence had only to follow established precedents. Although only recently established, the rate of development has been such that this department in equipment and facilities of instruction compares favorably with the other engineering departments.

For two years past this department has been in charge of Dr. D. W. Shea, who, by quiet, persevering efforts, is still further advancing the work of the department.

The last department to be considered is that of

## MUNICIPAL AND SANITARY ENGINEERING,

organized two years ago. This is an attempt to prepare young engineers for the important duties connected with the public works of cities. At present this course does not differ greatly from that of civil engineering, owing to the fact that the head of this department has charge also of the instruction in theoretical and applied mechanics, which necessarily takes the larger part of his time and effort. Although this department was organized only two years ago, the head of it, Professor A. N. Talbot, has been a member of the faculty of the college of engineering for eight years, and his sound judgment, thorough scholarship, courteous manner, and earnest effort have added greatly to the advancement of the instruction in the college.

The mathematical department differs from the others mentioned in that there is no course bearing the same title.\* Instruction in mathematics occupies a prominent place in the first two years of all engineering courses. The scope of the work is equal to that of the engineering courses of the leading institutions of the country. During twenty-five years, and except for the first term, during the entire history of the University, the work of this department has been under the direction of Professor S. W. Shattuck, who by his faithfulness and courtesy has had the universal esteem and respect of his students.

This completes the sketch of the history of the organization of the several departments of the college of engineering. Let us examine briefly, and it must be very briefly indeed, the steps in the progress of the college.

Fifteen years ago there were 65 engineering students; 10 years ago, 112; 5 years ago, 158, and last year, 387; or a six-fold increase in fifteen years. This is a most remarkable growth for which those in authority deserve great credit, but conditions external to the institution alone made such a result possible. At about the time this institution was founded, an important educational change was inaugurated. In the onward march of civilization one after another of human employments have been wheeling into the line of the learned professions. First came the clergyman or priest, next the physician, then the lawyer. The use of steam as a means of transportation, and the consequent stimulation of all industrial

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\*Since this paper was read there has been added to the curricula a mathematical course, in which mathematics constitutes the major study during the four years.

activity created a demand for a new order of intellectual ability, that of the engineer; without any exaggeration, it may be said that during the first twenty years of the history of this institution, engineering became one of the learned professions. The four great engineering associations of the United States, as well as all of the numerous minor ones, were founded during this period.

The civil engineering society was organized in 1865 and included all engineers, until the mining branch organized separately in 1871. The mechanical engineering withdrew from the parent society in 1880, and for a time included electrical engineering, but in 1886 the latter established an independent organization. The growth in engineering literature—the newspaper, the magazine, and the formal treatise—has been even more marked during this period.

The remarkable growth of the engineering departments is but one of the indications of the onward march of civilization.

What have been the chief characteristics of the work of the college? The answer must be very brief.

1. The instructors have given an unusual number of hours per day to their students. A number of them for years gave six and eight hours per day to their classes, and spent their nights correcting problems and preparing blue print text books.

2. By means of special exercises and written problems the instruction has been of the individual to an unusual degree for even engineering schools.

3. No small part of the success of the engineering departments is due to the fact that at a very early day the instructors abandoned the so-called lecture method, *i. e.* the impartation of information by dictation, and employed instead the blue print text book and the seminary system.

4. The instructors have not sat and waited for the trustees and the state to provide suitable apparatus for illustration, experimentation, or investigation, but have improvised with the means at hand, and have pushed on this most valuable feature of technical instruction. The students have aided greatly in making apparatus.

5. In the past the students of this University have been free to an unusual degree, from many of the dissipating influences of college life.

And now a few words concerning the future.

With the advancement of the engineering profession has come a change of conditions of vastly greater importance to the engineering college than any question of number of students. The field of engineering has been so greatly extended in the last few years that a large increase of equipment is imperatively demanded. The student rightly asks that he shall have training in experimental investigation, the most valuable feature in instruction in engineering, since it alone trains the judgment to discriminate conditions and to interpret results. Of course this kind of training makes larger demands upon the instructor's time, and requires a large outlay for apparatus, but it has been abundantly proved to be vastly more valuable than any amount of study of the methods and results of others.

In response to the demands of the times the engineering schools of the country are adding in a rapidly increasing ratio more and more to their equipment for experiment, and are giving better and better instruction in the methods of scientific investigation as applied to problems of every day engineering practice.

The expenditure for equipment per engineering student at the leading engineering schools of this country is from two to seven times as much as at this. The field of engineering education has so broadened and the number of students has so increased that the history of the past can not be repeated, nor can the present standing of the engineering college be long maintained without a generous financial support. Shall Illinois be behind her sister states in facilities for instruction offered her sons?

In closing I desire to congratulate my colleagues, who know only too well the long, weary road by which we have reached this glad occasion. The promised land appears. Your work has met with substantial approval. You are soon to enter upon the enjoyment of more commodious and convenient quarters, but increased opportunities bring with them added obligations. It is yours to make the new conditions bring forth a richer harvest.

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