

PROCEEDINGS  
OF THE  
BOARD OF TRUSTEES  
OF THE  
UNIVERSITY OF ILLINOIS,  
FOR THE YEAR ENDING AUGUST 31, 1890.

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MEETING OF SEPTEMBER 10, 1889.

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The Board of Trustees of the University of Illinois met in the University parlor, in Urbana, at 3:30 o'clock p. m., September 10, 1889.

The members present were Messrs. Bennett, Bullard, Clemens, Cobb, Edwards, Harker, McLean, and Shawhan; absent, Governor Fifer, and Messrs. Haskell, McKay, and Millard.

The minutes of the last meeting were approved.

The Regent's report was then read.

REGENT'S REPORT.

*To the Trustees of the University of Illinois.*

GENTLEMEN: At the last meeting of the Board of Trustees, the Regent "was authorized to fill the vacancies in the list"—of appointments—"on consultation with the Committee on Instruction, subject to the approval of the Board. For this purpose Mr. Shawhan was made a member of the committee." Pursuant to this action of the Board, the following appointments have been made:

Rufus Anderson, Instructor in Iron Work and Foreman, \$1,600 per annum.

S. R. Winchell, Professor of Latin, \$2,000 per annum.

Howard S. Brode, Assistant in Zoölogy, \$100 per month.

H. S. Grindley, Second Assistant in Chemistry, \$60 per month.

J. V. E. Schaeffer, Assistant in Machine Shop, \$80 per month.

Cleaves Bennett, Assistant in Library, \$40 per month.

Mr. Anderson graduated from the mechanical department of Cornell University. He has served several years as foreman in private mechanical shops, and for five years as foreman in the Sibley College of Engineering, of Cornell University. From his long and special experience, and the evidences of his practical skill as workman and teacher, I am led to put great confidence in his ability to do the work desired here.

Mr. Winchell is a graduate of the University of Michigan, has served successfully as principal of the high schools at Ann Arbor, Michigan, and at Milwaukee, Wisconsin, and is well known as an educational author and publisher. He will be an important accession to the force in our college of literature and science.

Mr. Brode comes with excellent recommendations for his work in connection with Professor Forbes.

The other appointees are well known graduates of our own schools.

Learning that Professor Arthur W. Palmer had finished the year's work which he had undertaken in Germany, and was about to return to this State, I offered him the nomination to the vacancy made by the transfer of Prof. Manns from the Experiment Station. But Mr. Manns declines the appointment to the University work, preferring to remain in that of the Experiment Station. I have no question but that he would do the University excellent service. Some conference with him has given an understanding as to his ulterior purposes in life which shows that this declination is creditable alike to his good sense and to his kindly disposition to the University, and I think his wishes should be acceded to.

I therefore, with leave of the Board, nominate Arthur W. Palmer, Sc. D., to the position of Assistant Professor of Chemistry, at a salary of \$1,600 per annum, and recommend that he be placed in charge of the department of chemistry. Prof. Palmer will be remembered as a graduate of this University, having received his Doctor's degree at Harvard University. He has had long experience as a teacher, both at Harvard and at home; he is thoroughly a chemist, familiar with our courses and methods, and has fairly earned this appointment.

Mr. Bedros Tatarian has declined the appointment as First Assistant in the Chemical Laboratory, and Miss Essie Dana declines to be Assistant in Drawing.

These places are to be supplied.

Wednesday last an alarm of fire was made, proceeding from the north barn, caused, probably, by the machinery connected with the large wind-mill. The barn was filled with hay and burned rapidly. All the animals and most of the machinery and tools were saved. The barn with about sixty tons of hay, the dairy house, the corn-crib, with about 600 bushels of grain, and the silo were lost. Prof. Morrow's house, although at one time in imminent danger, was not injured. The loss of this barn makes a serious interruption in the work of the farm, and especially of the Experiment Station. I hope that the Board will see the need of its immediate reconstruction, and I believe that the means for so doing will be found to be within your control. The total loss may be roughly estimated at about five thousand dollars.

Professor Morrow has returned from his European trip. During his absence the farm work has been cared for by Mr. F. D. Gardner, in a very satisfactory manner. The farm report is presented herewith:

## FARM REPORT.

UNIVERSITY, Sept. 10, 1889.

*Dr. S. H. Peabody, Regent:*

SIR: During the three months ending September 1st, the financial transactions of the University farm have aggregated as follows:

Receipts.....	\$314 28
Expenditures.....	58 13

The expenditures have been the larger because of the harvest and threshing—fully completed—and some necessary purchases. The sales have been smaller than usual because of my absence. The hay and oats harvest was satisfactory. There is a prospect of a fine crop of corn. The potatoes are in good condition. The live stock has generally done well.

The work during the quarter seems to me to have been well and economically done.

The burning of the barn on the experiment farm, September 4th, was a serious misfortune. Aside from the buildings, there were burned about 60 tons of hay, 500 bushels of corn, 100 bushels of wheat, 100 bushels of oats, together with harness, tools, etc., to the amount of about \$100 to \$125, not counting property of the Experiment Station.

Respectfully submitted,

G. E. MORROW.

The quarterly report of the Experiment Station, with recommendations and estimates, is herewith presented. I believe that the Station has settled down into regular, efficient, and useful work. It is now issuing nearly 10,000 bulletins, quarterly, mostly to farmers in Illinois. The trial experiments at Flora, in the southern part of the state, indicate important results, which, if corroborated by subsequent experiments, will prove a very great service to the farmers in that section. A second series of these trials is already begun.

## REPORT OF THE EXPERIMENT STATION.

*To the Regent of the University of Illinois.*

SIR: The Board of Direction of the Experiment Station asks authority from the Board of Trustees to undertake the following work:

1. During the past year an experiment in relation to the effect of fertilizers upon wheat has been carried on at Flora by your authority. The Board of Direction proposes to repeat this experiment at Flora, and desires, with your consent, to undertake similar experiments at several other points. It is proposed to expend upon these experiments during the year not more than one hundred dollars.

2. An experiment to test the vitality of seeds.

3. An experiment to test the durability of woods.

4. An experiment to test the deterioration of varieties.

To carry on its operations until October 1, 1889, the Board of Direction asks that Station funds be appropriated to its use:

For fuel and lights.....	\$50 00
For incidental expense.....	25 00
For wages.....	300 00
	\$375 00

And for the quarter ending December 31, 1889 :

Board expense.....	\$40 00
Books and publications.....	50 00
Botanical apparatus.....	100 00
Bulletins and reports.....	350 00
Chemical apparatus.....	75 00
Fertilizers.....	10 00
Fuel and lights.....	100 00
Incidentals.....	25 00
Printing, stationery, and postage.....	25 00
Salaries.....	1,960 00
Seeds and trees.....	25 00
Tools.....	130 00
Wages and teams.....	800 00
Dairying experiment.....	100 00
Wheat experiments.....	50 00
Total.....	\$3,840 00

The following papers are presented :

- A. Vouchers for auditing, with a list of the same.
- B. Statement of expenditures for quarter ending June 30, 1889.
- C. Statement of receipts and expenditures for the year ending June 30, 1889.
- D. Statement of appropriations, expenditures, and balances for the current quarter ending September 30, 1889.
- E. Estimate of expenditures for the quarter ending December 31, 1889.

PAPER C—*Statement of Accounts for the year ending June 30, 1889.*

RECEIPTS.	
Appropriated by Congress.....	\$15,000 00
EXPENDITURES.	
Buildings and repairs.....	482 42
Board expenses.....	97 60
Books and publications, and binding.....	421 51
Botanical apparatus, supplies and fixtures.....	25 65
Bulletins and reports.....	1,189 97
Chemical apparatus, supplies, and fixtures.....	156 23
Fertilizers.....	63 70
Fuel and lights.....	372 10
Furniture and fittings.....	99 98
Incidentals.....	76 50
Printing, stationery, and postage.....	78 80
Salaries.....	7,856 11
Seeds and trees.....	183 30
Tools.....	177 10
Wages and teams.....	3,464 64
Sundry—	
Biology of ensilage.....	50 00
Fruit preservation.....	13 50
Corn experiment at Flora.....	16 75
Wheat experiment at Flora.....	25 67
Experiment with fertilizers on grasslands [fencing].....	51 97
Expense delegates to Knoxville.....	71 50
Association American Colleges and Experiment Stations.....	25 00
	\$15,000 00

Respectfully submitted,

S. H. PEABODY, President Board of Direction.

The new drill hall has made considerable progress. The walls are nearly finished, and the building will be inclosed before cold weather comes. It will be difficult to finish it within the appropriation made by the state, and some funds from current account will be needed.

The improvements asked in the upper story of the main building were referred to the Committee on Buildings and Grounds, and with its approval have been made. The department of architecture finds itself in apartments well suited to its needs, both as to space and light. The amount of money expended has considerably exceeded the estimate. A part of this excess comes from the need of casing the girders overhead, from which the plaster was falling. This has been required from time to time in all the large rooms where the heavy girders are exposed. The whole improvement has cost \$590.62. The sum appropriated at the last meeting was \$430. The balance should now be assigned.

The renovation of the chemical building has been done at a cost of \$286.54. The sum assigned was \$400.

The fence around the north campus has mostly been set; the remainder being left until the work about the new building should be finished. The amount expended is \$496.64. The appropriation was \$500. It will require \$50 more for painting, which should be done without delay.

The general repairs, cleaning, calcimining, etc., have been larger than usual at this season, especially because of the amount of carpenter, mason, and painter's work done in the two buildings. For this purpose \$400 was authorized. The cost has been \$548.69, which you are asked to approve.

The Library Committee presents a report of its transactions for the year ending June 30th. It is a matter of regret that the legislature should reduce the usual appropriation for this important purpose. The amount available is only \$1,000, for which I ask the usual reference with authority to act.

#### REPORT OF LIBRARY COMMITTEE.

*To the Trustees of the University of Illinois.*

GENTLEMEN: At the meeting of the Trustees of September, 1888, the following order was passed:

"That the expenditure of the state appropriation for books and publications for the current year be referred to a committee consisting of the Regent, the Librarian, and the Business Agent, and that the list of books and the bids obtained therefor be referred to the Executive Committee of the Board for its approval."

Acting under this direction the Library Committee, after conference with the members of the Faculty, prepared as usual, a list of periodicals and a list of books. Both these were submitted to and were approved by the Executive Committee.

Nov. 27, 1888. Leave was given by the Executive Committee to purchase list of periodicals for year 1889 from A. H. Roffe & Co., for \$273.81.

Dec. 8, 1888. Leave given by same to purchase missing back numbers to complete volumes, to the amount of \$15.00.

Jan. 16, 1889. Leave given to pay for binding Patent Office reports \$31.20.

Bids were invited from A. C. McClurg & Co., and S. A. Maxwell & Co., of Chicago, and G. P. Putnam's Sons, of New York, as to list of books, already approved by the Executive Committee. These firms had all requested opportunity to present bids. Lists were sent to each firm separately. After lapse of considerable time, Maxwell & Co. wrote declining to bid, farther than an offer to buy such books as they could find in market at 10 per cent. commission. Bids were received from Putnam & Co., and from McClurg & Co.; the latter were found to be the lowest, and the purchase was awarded to them by the Executive Committee, Jan. 26,

1889, to the amount of \$545.88, the books to be delivered free of cost for freight, etc., at Champaign.

At the same time the Executive Committee ordered that the Regent be authorized "to purchase the necessary books not included in the above list, at the best terms possible, and to report the same to the Board."

Pursuant to these orders of the Trustees and the Executive Committee, the Library Committee and the Regent present the accompanying statement of their expenditures on this account:

UNIVERSITY OF ILLINOIS, Sept. 10, 1889.

A STATEMENT OF STATE APPROPRIATION FOR BOOKS AND PUBLICATIONS  
FOR TWELVE MONTHS, ENDING SEPT. 1, 1889.

1888.			
Sept. 1.....	Balance.....		\$1,511 31
Warrant 112	Subscription, School of Mines.....	\$2 00	
" 113	Index o Magazines, Galloupe.....	2 00	
" 160	Book, Brown & Co.....	5 50	
" 194	Book, McClurg & Co.....	5 25	
" 195	Transactions, Amer. Phil. Asso.....	2 00	
" 197	Books, Schoenhof.....	24 03	
" 196	Bound Forum, Forum Pub. Co.....	17 50	
" 209	Books, Steiger & Co.....	28 20	
" 210	Maps, MacCoun.....	10 00	
" 223	Book, Putnam's Sons.....	5 50	
" 324	Book, Haines Co.....	5 00	
" 331	Binding, U. S. Patent Office.....	31 20	
" 384	Books, Steiger & Co.....	14 86	
" 385	Books, B. F. Stevens.....	32 49	
" 386	Books, Schoenhof.....	10 41	
" 403	Periodicals, Roffe & Co.....	275 61	
" 404	Books, McClurg & Co.....	169 83	
" 481	Book, A. W. French.....	75	
" 547	Subscriptions, A. H. Roffe & Co.....	3 10	
" 548	Book, Putnam's Sons.....	5 50	
" 549	Books, Houghton & Co.....	4 00	
" 550	Books, McClurg & Co.....	135 01	
" 633	Books, Estes & Lauriat.....	139 00	
" 634	Books, McClurg & Co.....	261 49	
" 644	Freight, Wabash Co.....	3 49	
" 658	Book, Appleton & Co.....	6 00	
" 672	Books, Brown & Co.....	11 00	
" 674	Binding, Champaign Co. Gazette.....	100 00	
" 721	Books, Putnam's Sons.....	200 59	
			1,511 31

S. W. SHATTUCK, Business Agent.

Respectfully submitted,

S. H. PEABODY,  
S. W. SHATTUCK, } Library Committee.  
J. D. CRAWFORD, }

I ask the following items:

From state appropriation for apparatus and material—	
For instruments for department of civil engineering.....	\$250
For gauges and tools of precision for machine shop.....	300
For geological relief map, \$10; for aneroid barometer, \$10.....	50
From state appropriation for cabinets—	
For human skeleton.....	50
For current expenses zoological laboratory.....	50
From current funds—	
For furniture and fittings, including two teachers' desks, settees and chairs, desks for drawing rooms, and racks for drawing boards.....	200
For repairs to boilers at main building.....	600

Respectfully submitted,

S. H. PEABODY, Regent.

On motion by Mr. Cobb, the nominations of instructors in the University for the current year were approved, as made by the Regent:

S. R. Winchell, Professor of Latin.....	\$2,000 per annum.
A. W. Palmer, Assistant Professor in Chemistry.....	1,600 " "
Rufus Anderson, Instructor in Iron Work and Foreman.....	1,600 " "
Howard S. Brode, Assistant in Zoölogy.....	100 per month.
Henry Jussel, First Assistant in Chemistry.....	90 " "
H. S. Grindly, Second Assistant in Chemistry.....	60 " "
J. V. E. Schaeffer, Assistant in Machine Shop.....	80 " "
Cleaves Bennett, Assistant in Library.....	40 " "
Etta Beach, Assistant in Drawing.....	25 " "

#### BUSINESS AGENT'S REPORT.

The Business Agent, Prof. S. W. Shattuck, made his report, which was referred to the Committee on Finance:

UNIVERSITY OF ILLINOIS, Sept. 10, 1889.

*Alexander McLean, Pres. Board of Trustees, University of Illinois,*

SIR: I have the honor to transmit herewith the usual papers due from me at this time.

Paper A is a statement of the current appropriations for the six months ending Sept. 1, 1889.

Paper B is a statement of the state appropriations, Sept. 1, 1889.

Paper C is a list of vouchers presented for audit, being 626 to 837 inclusive.

Paper D is an estimate of receipts and expenses for the twelve months ending Sept. 1, 1890.

Paper E is an estimate of receipts and expenses for the six months ending March 1, 1890.

The Board is requested to make the necessary appropriation for the expenses of these six months.

Respectfully submitted,

S. W. SHATTUCK, Business Agent.

#### PAPER A—CURRENT APPROPRIATIONS.

Of March 12, 1889, and June 11, 1889.	Appropriated	Receipts also appropriated.	Expended.	Balance.
Board expense.....	\$300 00		\$188 03	\$111 97
Salaries for instruction.....	19,835 66	\$333 33	18,944 55	1,224 44
services.....	1,400 00		1,260 27	139 73
Buildings and grounds.....	50 00	104 00	111 00	43 00
Fuel and lights.....	1,000 00	227 72	1,033 50	194 22
Stationery and printing.....	1,300 00		1,122 32	177 68
Mechanical department.....	200 00	182 14	322 47	5 67
Architectural.....	200 00	2,068 25	2,217 50	50 75
Agricultural.....	200 00	981 14	1,547 78	
Horticultural.....	200 00	196 42	72 87	323 55
Military.....	50 00		44 46	5 54
Laboratories.....	200 00	578 52	315 97	462 55
Library and apparatus.....	50 00		16 35	33 65
Incidentals.....	264 84		234 52	30 32
<i>Sundries—</i>				
Furniture and fixtures.....	124 85		82 49	42 36
Water supply.....	200 00		200 00	
Commencement expenses.....	200 00		196 93	3 07
Premium on bonds.....	674 10		674 10	
Preparatory year.....		632 50	619 99	12 51
University students' fees.....		3,057 50		3,057 50
Music fees.....		258 50	258 50	
Griggs farm.....		638 33		638 33
Association Agt'l Col. and Exp. Sta.	25 00		25 00	
Minnesota and Nebraska lands.....		10 00		10 00
Paris Exposition.....	25 00		25 00	

## PAPER B—STATE APPROPRIATIONS.

	Approp'd.	Received.	Expended	Balance.
Taxes on land.....( $\frac{1}{2}$ per annum)	\$3,400 00	\$1,543 62	\$1,543 62	.....
Buildings and grounds.....	5,000 00	2,500 00	1,835 68	\$664 32
Mech. and Arch. shops.....	3,000 00	1,500 00	50 00	1,450 00
Books and publications.....	2,000 00	1,000 00	.....	1,000 00
Cabinets.....	1,000 00	500 00	4 72	495 28
Expenses of instruction.....	40,000 00	20,000 00	.....	20,000 00
Apparatus and material.....	3,000 00	1,500 00	.....	1,500 00
Metallurgical laboratory.....	4,000 00	4,000 00	2,624 18	1,375 82
Drill hall.....	10,000 00	10,000 00	4,988 34	5,011 66
New boiler in machine shops...	1,250 00	1,250 00	.....	1,250 00
	\$72,650 00	\$48,793 62	\$11,046 54	\$32,747 08
Illinois State Laboratory of Natural History..	15,123 62	9,873 62	1,870 21	8,003 41

Messrs. McKay and Millard, of the Finance Committee, being absent, the President appointed Messrs. Bennett and Clemens on the committee to serve for this meeting.

So much of the Regent's report as related to the loss by fire and to rebuilding the barn was, on motion, referred to the Committee on Buildings and Grounds with instructions to consider the matter and report to the Board later during this meeting.

The requests made by the Board of Direction of the Experiment Station for authority to undertake new work, were granted on motion of Mr. Cobb.

Also, on motion of Mr. Cobb, appropriations of Station funds were made as asked, for both the current and the next quarters.

The report of the Library Committee was received and approved on motion of Mr. Cobb.

It was voted that the Library Committee should consist of the Regent, the Business Agent, and the Librarian, Prof. J. D. Crawford, and that to them should be entrusted the expenditure of the state appropriation of \$1,000.00 for the use of the library; and the Committee was instructed to consult with the chairman of the Executive Committee.

The Board then adjourned to meet at the Doane House, in Champaign, at 9 o'clock p. m.

## EVENING SESSION.

The Board convened at the Doane House according to adjournment, the same members being present as in the afternoon.

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

From state appropriation for buildings and grounds—	
For completion of fence around north campus.....	\$50 00
Additional for repairs and cleaning.....	150 00
Additional for fitting up rooms of architectural department.....	170 00



On motion of Mr. Bullard, there was appropriated:

From state appropriation for apparatus and material—	
For civil engineering instruments.....	\$250 00
For gauges and instruments of precision for machine shop.....	3 0 00
For geologic relief map .....	10 00
For aneroid barometer .....	40 00

On motion of Mr. Harker, there was appropriated:

From state appropriation for cabinets—	
For human skeleton.....	\$50 00
For current expenses of zoological laboratory.....	50 00

On motion of Mr. Bullard, there was appropriated:

From current funds—	
For desks, settees, racks, etc .....	\$200 00

And on motion of Mr. Harker, there was appropriated from the same fund, in payment of the Regent's bill for traveling expenses, \$123.42.

On motion of Mr. Harker, the Secretary was instructed to return to Mr. Foster North, of Kewanee, his letter to the Board, and to say to him that the proposition therein contained was declined.

The Board then adjourned to meet at the University at 8:30 o'clock a. m. Wednesday.

### SESSION OF WEDNESDAY.

The Board met at the University parlor at 9 o'clock a. m., Wednesday, the same members being present as on the previous day.

The Treasurer, Mr. J. W. Bunn, then presented his report, which was referred to the Finance Committee.

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

1889.				
June	11	To balance.....		\$6,016 92
		J. F. Leib for balance note.....		1,500 00
	15	" interest on Morgan Co. bonds.....	\$1,400 00	
		" " Urbana school bonds.....	577 50	
		" " Montgomery Co. school bonds.....	780 00	
				2,757 50
	17	To interest on Sangamon Co. school bonds due April 1.....		51 00
July	1	" " Champaign Co. bonds.....	\$4,500 00	
		" " Pike Co. bonds.....	2,100 00	
		" " Sangamon Co. bonds.....	880 00	
		" " Chicago water bonds.....	875 00	
		" " Macoupin Co. bonds.....	660 00	
		" " Pittsfield school bonds.....	630 00	
		" " Litchfield school bonds.....	440 00	
		" " Montgomery Co. school bonds.....	260 00	
		" " Christian Co. school bonds.....	240 00	
		" " Kankakee school bonds.....	60 00	
		" " Sangamon Co. school bonds.....	112 00	
		" " Kankakee Co. school bonds.....	1,500 00	
				12,257 00

Treasurer's Report—*Continued.*

		Dr.			
July	3	To interest on Kankakee Co. School bonds.....			\$900 00
		am't rec'd from state for taxes on lands in Minne-			
		sota and Nebraska.....	\$1,543 62		
		for buildings and grounds...	2,500 00		
		for laboratories.....	1,500 00		
		mechanical shops.....	1,500 00		
		books and publications.....	1,000 00		
		specimens for cab nets.....	500 00		
		expenses of instruction.....	20,000 00		
		new boiler in machine shop.....	1,250 00		
		construction of drill hall.....	10,000 00		
					39,793 62
		20	To am't rec'd from state for State Laboratory of Natu- 		

*Treasurer's Report—Continued.*

		Cr.		
Aug.	31	State appropriations—		
		By amount paid on account taxes on lands in Minne-		
		sota and Nebraska.....	\$1,543 62	
		buildings and grounds....	2,038 68	
		mechanical and architect-		
		ural shops.....	65 00	
		books and publications ..	317 59	
		cabinets .....	183 30	
		apparatus and material ..	183 82	
		metallurgical laboratory..	39 87	
		drill hall.....	4,988 34	
		State Laboratory of Nat-		
		ural History.....	1,870 21	
Balance .....				\$11,230 43
				48,482 86
				\$74,034 94

JOHN W. BUNN, Treasurer.

Urbana, September 10, 1889.

The matter of University lands in Minnesota was referred to a committee consisting of Mr. Bennett and the regent, on motion of Dr. Edwards.

The Committee on Buildings and Grounds made the following report:

## REPORT OF BUILDING COMMITTEE.

*To the Trustees of the University of Illinois.*

GENTLEMEN: By vote of the Trustees at the regular meeting in June, the matters pertaining to the erection of the new drill hall, the alteration of the rooms in the upper story of the main building, and the construction of the entomological laboratory, were referred to the standing Committee on Buildings and Grounds, to which the President of the Board and the Regent were added, for the purposes involved in the same motion.

A meeting of the committee was held at the University June 12th, at which were present Messrs. Bullard, Shawhan and Peabody. Absent, Messrs. McLean and Harker.

The committee voted to proceed with the work in the upper story of the main building, in accordance with the plans presented by the Regent. Also to proceed with the erection of the entomological laboratory in accordance with designs presented by Professor Forbes.

A second meeting of the committee was held at the University July 9th; present, Messrs. Bullard, Shawhan, McLean and Peabody.

After consideration of designs and estimates for drill hall, it was—

Voted: That Professor N. C. Ricker be appointed architect for the drill hall, and that he be empowered to act as architect in regard to all contracts to be made for materials and work to be purchased or used in construction of that building.

Voted: That the designs and detail drawings presented by Professor Ricker for said drill hall, be approved and adopted.

Voted: That the foundation of the drill hall, from the footings to the surface of the ground at grade line, be made of hard-burned brick laid in cement; that the wall from the top of the foundation to the top of the window sills be twelve inches thick, of which the outer portion, at least six inches thick, be laid in natural faced, coursed, rubble, of stone to be approved by the architect, the inner remaining portion to be laid with well burned brick; that from the top of the window sills to the top of the cornice the wall be twelve inches thick laid with well burned brick.

Voted: That in all present estimates and contracts the floor be omitted.

Bids from various parties having been opened and considered, contracts were awarded to the following parties, for different parts of the work respectively, they being in the judgment of the committee upon terms most advantageous to the University.

Wherever the bids included work or material for the floor, corresponding deductions for work and material were to be made as should be determined by the architect.

For brick and stone masonry, to Kerr Brothers, of Urbana, they to furnish all labor and material, for \$4,333.88, if walls were built all of brick, with 8 cents per cubic foot additional for whatever part should be built of stone, except the cut stone for door and window sills.

For tinner's work, as described in specifications, to Hubbard & Sons, of Urbana, for \$825.00.

For lumber, to George Besore, of Urbana, for \$1,479.11.

Contract has since been awarded with consent of committee, to F. Felkel, of Cleveland, Ohio, for all steel, wrought-iron, and cast-iron structural work, for \$1,063.50.

For further information concerning the progress of the building, the report of the architect to the committee is herewith appended.

#### ARCHITECT'S REPORT.

UNIVERSITY OF ILLINOIS, URBANA, ILL., 1889.

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

GENTLEMEN: The contract for tinner's work was executed with Hubbard & Sons, of Urbana, at \$825, as awarded.

The contract for lumber was made with George Besore at \$1,479.11, after omitting the floor. The lumber has all been delivered, and the final certificate for payment given.

The contract for masonry was made with Kerr Brothers at \$4,333.88 for masonry if entirely of brick, with an additional payment of 8 cents per cubic foot for the stone masonry required by the drawings and specifications.

These three contracts were awarded by you at your second meeting, though only the price of the first was then fixed.

After a great deal of correspondence and delay, and correspondence by the Regent with most of the members of the committee, the contract for the iron and steel structural work was finally awarded to F. Felkel, of Cleveland, for \$1,063.50, being about \$300 lower than any other bid received, the freight from Cleveland being probably about \$30 on this. This includes everything except anchor rods and plates, ventilation gratings, and the fastenings, such as bolts, lag bolts, plow bolts, wood screws and Russell & Erwin screw-nails, which have been obtained from other parties in Champaign and Urbana, either because they were required for immediate use in the building, or were manufactured articles kept in stock in the hardware trade, and as cheaply procured here as anywhere.

This metal work is required to be shipped from Cleveland on or before Oct. 2d, (time extended about one week beyond that stated in contract), so that it will probably be received about Oct. 5th, which will be as soon as the framing of the roof is completed.

The excavations cost about one-half as much as estimated, principally owing to the greater inclination of the site, though they were everywhere carried down into the solid yellow clay, to reach a soil of practically uniform resistance. As this is loaded with about  $1\frac{1}{2}$  tons only per square foot, or  $\frac{2}{3}$  as much as is now frequently used for heavy buildings on Chicago soil, no unequal settlements or cracks need be feared.

The difference of level is about 2 ft. at each end of the building, 6 in. on the northern side, and the greatest difference is about 3 ft. with the thickest layer of black soil, which is found at the middle of the southern front. It therefore became necessary to bench the footings, which were arranged to rest on the solid yellow clay, and still require as little extra brickwork as possible.

The grade was fixed 6 inches above the highest surface of the ground at the northwest angle, and the foundation walls were carried 3 feet 7 $\frac{3}{4}$  inches below grade along the north and half the east and west sides, instead of the 4 feet contracted for, this saving of two courses being used to partially compensate for the extra depth of foundations required along the southern front, where they were carried about 2 feet 8 inches deeper.

As it was uncertain whether the floor would be put in the building or not, and as it would be quite inconvenient to use it with the door sills level with the top of the base, as originally designed, it was decided to drop them 2 $\frac{1}{2}$  feet thus resting on the grade level, making the door frames longer by that amount and putting in a temporary panel 2 $\frac{1}{2}$  feet high between the doors and transom bars, so that the sills and doors could easily be raised at any time by simply shortening the frames and taking out the panels. The contract for masonry was let on this basis, making a deduction for the 2 $\frac{1}{2}$  feet in height of masonry omitted at each doorway.

After taking into account the omission of footings on insides of end walls as not required, the addition of 1 foot in the height of frame of each doorway and in that of the large southern window, etc., and the extra masonry required in the foundations, this leaves an extra of 201 cubic feet of brickwork (actual and not mason's measure) in addition to that contracted for.

After a great deal of further consideration, and consultation with the Regent, it was finally decided to make a few additional changes in the masonry, better to adapt the building to its inclined site.

The more important of these were to drop the floor level 22 inches, thus making it 16 inches above grade level, and to set the door sills permanently at that level. The 2 $\frac{1}{2}$  feet panels were omitted at the doorways, thus facilitating the hanging of the end doors by top rolls, and the frames were made a foot higher than originally drawn, this increased height mostly going into the transom, and the large southern window is also made a foot higher. Dropping the floor 22 inches left the tops of window sills 6 feet 10 inches above the floor, so that the windows and the top of the stone facing were also dropped 16 inches, making tops of sills 5 feet 6 inches above the floor.

Bonded arches 12 inches wide were used over the windows, and it was thought best not to diminish the height of the walls any, as the building would appear none too high externally, especially from the north, but to add another course of brick above the notches in the cornice, one at the sides of the notches, and another in the corbel courses, so as better to proportion the cornice to the present arrangement of the exterior of the building. This change in the cornice will cost about \$53.

Some stone masonry has been saved, but the University will be required to take the stone not used (about 7 cords), unless the contractors succeed in disposing of it otherwise, which they have agreed to do, if possible.

The stone work will cost about \$290, so that the masonry will cost about \$400 in addition to the contract price of \$4,333.88. The masons found it practically impossible to build an 8 inch wall so that it is all 12 inches except at the sliding doors in part.

The cut stone was obtained from the Singer & Talcott Company, of Chicago; Mr. Pendergast was asked if he wished to renew his bid, but did not reply. The freight rates on the stone appear pretty high, being 20 cents per hundred, while but 7 $\frac{1}{2}$  are charged for rubble stone.

The masons have been required to use Lemont stone, costing about \$2 per cord more than Indiana stone, and also to use machine-made brick throughout, because of better color and harder, though considerably smaller

than hand-made, which has materially reduced their profits and gives us a better building. But there is no claim for extras on this account, for it was stated to them before signing the contract, that both these conditions would probably be required. On this account, the use of some old lumber, fence-posts, etc., for scaffolding has been allowed them.

For economy, it was decided to substitute oak blocks built up of 2x6 plank set on edge for the stone blocks originally intended to be set beneath the ends of the main trusses to distribute the pressure over a safe area of the walls. They are just as good, and will be durable in their position.

Mr. Felkel has made the request that the iron and steel work be inspected in Cleveland instead of here, that any rejected work might be more quickly replaced with a saving of freights, and has suggested Mr. Probert, inspector of all iron and bridge-work for the city, as a proper man to be employed to make this inspection and the tests of the materials.

I replied to Mr. Felkel that this arrangement would be inadmissible, and that it did not appear to me that the University would obtain greater security that proper materials were used, than if samples were tested here by Professor Woods, as we should be compelled in some degree to rely on the honor and good faith of himself and the manufacturers of the work; that it might be possible to send Mr. Schaefer to Cleveland to inspect the work, when completed, but that this would require action of your committee, if done; further, that if the materials and work were in accordance with the contract and specifications, he need not fear rejection of either.

If the committee has any preferences in this matter of testing samples and inspection of the work, I shall carry out its orders with pleasure; otherwise, I will inspect the work when received here, in accordance with the contract, and will act as appears advisable in regard to testing samples. It may, perhaps, be of some use to require a certificate on honor, or an affidavit, from Mr. Felkel and the manufacturers, that the samples have been taken from the materials actually used for the work.

Mr. Felkel appears to be simply a contracting engineer, who sub-lets his work to the manufacturers, but I have not thought it necessary to raise that question under the contract, since the work is required in the least time and at the least cost possible.

Sufficient lumber will also be required for a staging for the erection of one main truss, as this can be so arranged that it can be readily moved for use in erecting the others. I believe the erection of the frame-work of the roof will be easy and rapid.

It will be necessary to paint the external wood-work, the shingles, and the tin roof, at any rate, whether the sash and glass are put in the windows now or not.

Sufficient earth should also be taken from the interior properly to grade around the exterior and to cover the brick foundation walls, as intended, so that this can be sown with grass seed this fall.

Since a large part of my time has been required for superintendence, arranging and completing contracts, specifications, etc., in order to get these papers and the working blue-prints out in time, I have found it absolutely necessary to employ some assistance in staking out and leveling for the building, and also in making the tracings of the drawings, all this amounting to about \$18, I believe. I have also paid out personally \$6.39 for materials for drawings, tracings, blue-prints, postage, etc.

With all my endeavors for economy, the cost of some items of the work has exceeded my estimates by a few hundred dollars, so that there is now about \$400 remaining, not expended or contracted for. This does not consider the cost of the rubble stone, which the University may be required to take.

EXPENDITURES REQUIRED BUT NOT PROVIDED FOR.

Windows—Sashes and transoms with double thick glass set .....	\$480 70
Lumber for scaffolds .....	18 69
Painting, cornice and frames, doors and windows, shingle roof, tin roof, oil- ing sheathing and frame-work of roof .....	900 00
Hardware, locks and hinges for doors, rolls and fixtures for doors, sash pivots and fastenings, nails, .....	180 00
Permanent floor, including excavation and grading .....	2,457 66
Total.....	\$4,037 05

Very respectfully submitted, N. CLIFFORD RICKER, Architect.  
We ask appropriations to the amount of \$3,645.39.

Respectfully submitted,  
S. A. BULLARD, } Committee on  
O. A. HARKER, } Buildings and Grounds.  
G. R. SHAWHAN, }

On motion of Mr. Cobb, the report of the committee was received and approved, and the committee was instructed to complete the building as proposed; and for this purpose, including drainage, the sum of \$4,000 was appropriated from current funds, to the expenditure of which amount the committee was limited.

The Committee on Buildings and Grounds presented the following report:

REPORT CONCERNING BARN.

*To the Trustees of the University of Illinois.*

Your Committee on Buildings and Grounds, to which was referred the part of the Regent's report in reference to the loss of our north barn, reports that it has considered the situation and consulted with Professor Morrow as to what we must actually have to conduct the work of the University in his department.

The committee asks an appropriation of fifteen hundred dollars to build stables for cattle and horses and room for feed—the stable to be so constructed that it may become a part of the barn it is desirable to build at a later date, when sufficient funds therefor may be provided.

Respectfully submitted,  
S. A. BULLARD, } Committee on Buildings and Grounds.  
O. A. HARKER, }  
G. R. SHAWHAN, }

On motion of Mr. Bennett, the report of the committee was concurred in.

Also, on motion of Mr. Bennett, Professor Morrow and Mr. Cobb were added to the committee for the purposes of the foregoing motion, and the committee was instructed not to exceed the sum appropriated in carrying to completion the work proposed.

The Committee on Buildings and Grounds made the following report relative to the greenhouse:

*To the Trustees of the University of Illinois.*

Your Committee on Buildings and Grounds, to which was referred the communication of Professor Burrill regarding repairs on the greenhouse,

reports that it has examined the building, and finds repairs needed very badly, and recommends that one hundred and fifty dollars be appropriated from current funds for, repairing furnace, resetting glass, pointing up and painting brickwork, and painting the woodwork.

Respectfully submitted,

S. A. BULLARD, }  
G. R. SHAWHAN, } Committee on Buildings and Grounds.  
O. A. HARKER, }

The report was concurred in and \$150 was appropriated from current funds for the repairs named.

The Committee on Finance made the two following reports, which, on motion of Mr. Bennett, were approved for record:

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

Your Committee on Finance reports that it has examined and compared the books of the Treasurer with the warrants, Nos. 284 to 448 inclusive, drawn upon him for the six months ending June 30, 1889, against the funds belonging to the Experiment Station, amounting to \$8,165.37, and finds them correct as presented.

Respectfully submitted,

S. A. BULLARD, of the Finance Committee.

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

Your Finance Committee, to which was referred the report of the Business Agent, reports that it has examined the same and the vouchers submitted therewith, and finds them correct in form and properly receipted, except the salaries of Professors Comstock, McIntosh and Butler for August, 1889, for which receipts have not been given owing to the absence of said Professors.

The committee has found the vouchers of the Experiment Station, Nos. 410-474, which were referred to it, correct as presented and duly receipted.

The committee has also examined and found correct the statement of the receipts and expenditures of the Experiment Station for the year ending June 30, 1889; the amount of said expenditures is \$15,000.

Respectfully submitted,

S. A. BULLARD, }  
W. W. CLEMENS, } Finance Committee.

Appropriations for the next six months, as asked for by the Business Agent, were made as follows, on motion of Mr. Cobb:

Board expenses .....	\$300 00
Salaries for instruction .....	22,730 00
Salaries for services .....	1,900 00
Buildings and grounds .....	50 00
Fuel and lights .....	2,000 00
Stationery and printing .....	350 00
Mechanical department .....	200 00
Architectural .....	200 00
Agricultural .....	200 00
Horticultural .....	200 00
Military .....	50 00
Laboratories .....	200 00
Library and apparatus .....	50 00
Incidentals .....	200 00
Furniture and fixtures .....	50 00
Water supply .....	200 00
Total appropriated .....	\$28,880 00



The usual quarterly appropriations for the State Laboratory of Natural History were made for the ensuing quarter, on motion of Mr. Cobb.

On motion of Mr. Cobb, there was appropriated:

From current funds—	
For repair of boilers.....	\$600 00

The Finance Committee's report was approved for record as follows:

*To the Trustees of the University of Illinois.*

Your Finance Committee respectfully reports that it has examined the report of the Treasurer, Mr. J. W. Bunn, for the three months ending September 1, 1889, and finds it correct, and that there are funds in the hands of the Treasurer amounting to \$48,482.86.

Respectfully submitted,

S. A. BULLARD, } Finance Committee.  
W. W. CLEMENS, }

Adjourned.

W. L. PILLSBURY,  
Secretary.

ALEXANDER McLEAN,  
President.