

MEETING OF MARCH 9, 1897.

The Board of Trustees of the University of Illinois met in the President's office at the University at Urbana, Illinois, at 3 o'clock p. m., Tuesday, March 9, 1897.

The members present were Messrs. Armstrong, Bullard, McKay, McLean, Morrison, Pearce, Raymond, Smith and Mrs. Carriel and Mrs. Flower; those absent were Governor Tanner and Mr. Inglis.

The recently elected members of the Board, Messrs. Smith and McKay, and Mrs. Carriel, had, each of them, before the meeting of the Board, filed with the Secretary the usual oath of office.

The minutes of the last meeting of the Board were approved as presented by the Secretary.

The Committee on the School of Pharmacy made the following report:

URBANA, February 13, 1897.

To the Board of Trustees of the University of Illinois.

GENTLEMEN:—Your committee on the School of Pharmacy, to which was referred the matter of the mortgage on certain lots deeded to the University by the Chicago College of Pharmacy, falling due February 15, 1897, reports that it found that Mrs. J. Frecksen, the holder of the mortgage, did not wish to extend the same. Your Committee also found that it would take some time, also that the cost would be considerable, to replace the mortgage. Accordingly the Business Manager was instructed to pay off the mortgage amounting, principal (\$1,500.00) and interest (\$45.00), to \$1,545.00. This was done and the mortgage was duly satisfied. Papers and documents with regard to the same are now on file in the Business Manager's office.

Respectfully submitted,

ALEX. MCLEAN,
N. W. GRAHAM,
S. W. SHATTUCK,

Committee on School of Pharmacy.

Mr. Morrison, from the Finance Committee, reported with regard to the matter of attorney's fees which was referred at the last meeting of the Board that he had made some inquiries with regard to the matter, but desired further time. On motion of Mr. Bullard, further time was given.

ELECTION OF OFFICERS.

The President then announced that the next order of business was the election of officers, and called for nominations for the position of President of the Board.

Mr. Bullard nominated Mr. F. M. McKay, and there being no other nomination, Mr. McKay was elected President of the Board by acclamation and took the chair at once.

On motion of Mr. McLean, the President of the Board appointed Messrs. McLean and Raymond and Mrs. Flower to prepare resolutions concerning the services of Mr. Armstrong, the retiring President.

Mr. Armstrong nominated Mr. W. L. Pillsbury for the offices of Corresponding Secretary, Recording Secretary, and Registrar, and there being no other nomination, the election was made by acclamation.

On motion of Mr. McLean, the election of a Treasurer was made a special order for 10 o'clock Wednesday morning.

Messrs. Smith and Bullard were elected to constitute, with the President of the Board, the Executive Committee.

On motion of Mr. McLean, Andrew S. Draper was unanimously elected President of the University for the term of two years.

The President then presented his several recommendations:

THE WOMAN'S DEPARTMENT.

To the Board of Trustees.

I recommend that a new department in University administration be created, which shall be known as "The Woman's Department," at the head of which shall be an officer whose title shall be "Dean of the Woman's Department," and I propose the following general outline of the functions of this officer:

1. The Dean of the Woman's Department shall be charged with the general oversight of all the women students of the University. She shall seek to become their representative, guide and friend. It shall be her duty to aid and advise them in their University work and in social life, to the end that the highest attributes of independent but true womanly character may here be developed.

2. She shall seek the improvement and extension of those lines of University work in which women students are most interested, and shall endeavor to enlarge all instrumentalities which will promote their physical and intellectual vigor.

3. She shall seek the fullest information touching the progress of events throughout the world, which are of special interest to women, and shall represent the Woman's Department of the University upon public occasions and in the educational and periodical press, whenever it seems advisable and practicable to do so, without engaging in extreme and doubtful projects or entering into controversies about which the people are widely divided.

4. She shall be expected to have constant knowledge of the work and effectiveness of all the women teachers in the University, and to advise with and suggest to them and, if necessary, direct them as to all matters within the field of her general duty.

5. She shall be a member of the Council of Administration and invested with the powers and duties of such position.

I also recommend that for the present the position of Dean of the Woman's Department be coupled with that of Assistant Professor of the English Language and Literature, soon to become vacant through the resignation of Miss Merrill, and that the salary for the next year be \$1,500.00 for the positions so combined.

I nominate for Dean of the Woman's Department, and Assistant Professor of the English Language and Literature, Miss Violet D. Jayne, of Minneapolis, Minnesota. Miss Jayne graduated from the University of Michigan, taking the degree of A. B., in 1887. She made a specialty of English Literature during her under graduate course. In 1887-88 she was assistant principal of the high school at Crookston, Minnesota. In 1888-89 she spent her time at Ann Arbor in study. In 1889-91 she had charge of the English department at the State Normal School, Oshkosh, Wisconsin. 1891-92 was spent in Europe, passing two semesters at the University of Zurich, Switzerland, where she made a specialty of German literature. Her travels in Europe took her to Holland, Germany, France, Switzerland, Italy, Greece, and Turkey. In 1892-3 she had charge of the English department at Wheaton Seminary, Norton, Massachusetts. From 1893-96 she had charge of the English department in the State Normal School at San Jose, California. In 1896, after passing the required examination, she received the degree of A. M. from the University of Michigan, having studied for the same *absentia*. The present year she has been studying for the degree of Doctor of Philosophy at the University of Minnesota, specializing in English Literature. She expects to receive her degree there another year upon presentation of a thesis and by passing the required examinations.

I have communicated with the principal of the State Normal College at San Jose, California, and I have seen the principal of the State Normal School of Oshkosh, Wisconsin, and the presidents of the universities of Michigan and Minnesota, in reference to Miss Jayne, and have received from them the warmest commendations of her qualities. She is a woman of attractive appearance, quick intelligence, strong scholarship, greatly devoted to the interests of young women, and apparently possessing an ability to accomplish what she undertakes. She is thirty years of age, which is perhaps an immature age for so weighty a responsibility. Moreover she has never filled an independent administrative position, but she is very ambitious to do so and is confident of success; and with her thorough intellectual discipline and entire familiarity with university operations, I am led to have that confidence also. She is possessed of the spirit and is intensely interested in the work of State universities, and I think that fact is of consequence in connection with the position under consideration.

She is to sail in May and pass the summer in visiting and studying the places in England which have become historic as the birth-places of the masterpieces of English literature.

After the most painstaking investigation of all candidates giving any reasonable indication of meeting our demands, I have become convinced that Miss Jayne gives more promise of filling the position to our advantage than any other. I recommend her with an appreciation of how much is involved, but with much confidence that her appointment is a wise step for us to take.

A. S. DRAPER,

President.

The Board concurred in the President's recommendations, on motion of Mr. Armstrong, and appointed Miss Violet D. Jayne Dean of the Woman's Department, and Assistant Professor of the English Language and Literature at a salary of \$1,500 a year, the term of service to begin September 1, 1897.

INSTRUCTOR IN RHETORIC.

To the Board of Trustees.

Miss Helen Butterfield has advised me that she does not desire re-appointment to her present position for another year. I respectfully recommend for appointment to the instructorship in rhetoric Miss Gertrude Buck, of Indianapolis, Indiana, at a salary of \$70 per month for ten months commencing

September 1, 1897, and upon the understanding that if her services are altogether satisfactory she shall remain during the ten months beginning September 1, 1898, and shall receive as salary therefor \$80 per month.

Miss Buck is a graduate of the University of Michigan, has taken her second degree there and is now a candidate for the doctor's degree at the same institution. She was assistant in English at the University of Michigan from January, 1896 to January, 1897. She is now teaching in the Indianapolis high school. I have received the strongest commendations for her from President Angell and Professors Isaac W. Demmon, John Dewey, and Francis M. Scott. Professor Scott says: "Miss Buck by nature and by training is better fitted for such a place than any other student I have ever had in my classes. While she was my assistant, at a merely nominal stipend, she did as much work as any instructor on the ground, at the same time carrying on her graduate studies, writing articles and addresses, and organizing plans for raising money for the women's gymnasium, performing numerous social functions, and doing all these things so quietly that no one not intimately acquainted with her could have had any suspicion of her phenomenal industry." Miss Buck has done some graduate work at the University of Chicago. She has already written not a little for the monthly magazines, including the *American Journal of Politics*, and the *Forum*. She has a strong article in the March *Educational Review*. I recently went to Indianapolis to see her and have acquired the belief that she is a young woman of unusual attainments who will be a more helpful assistant to Professor Clark in his very important department than any other person of whom I have knowledge.

I ought not to pass from this matter without expressing the regret which every one at the University feels at having Miss Butterfield leave us. She has filled her position admirably and won the esteem of everybody associated with the University. Our regret at losing her will be somewhat mitigated, however, by the fact that she leaves us to enter marriage relations which entitle her to the congratulations of her innumerable friends.

A. S. DRAPER, *President*.

The Board also approved this recommendation and appointed Miss Gertrude Buck, of Indianapolis, instructor in rhetoric upon the terms suggested by the President.

TROUBLE BETWEEN SOPHOMORES AND FRESHMEN.

To the Board of Trustees.

Upon the evening of January 21st last there occurred in Urbana a clash between members of the two lower classes of students, which was of sufficient consequence to become the subject of a report to the Board of Trustees.

For several years an effort has been made to induce students not to hold secret social gatherings. Hearing that this wish of the University authorities was likely to be disregarded, I sent for the President of the freshmen class twice in the fall term, advised him of our wishes in the matter, and offered a room and the protection of the University to that class for the purpose of a class supper. What was said in reply led me to believe that our wishes would be complied with. About 8:30 o'clock on the evening of January 21st, the mayor of Urbana telephoned me that there was an outbreak in the streets. I advised him that the University could not undertake to maintain the public peace, but would support the city authorities in any vigorous measures which they might take to do so. It turned out that the freshmen had prepared for a supper in a public hall and that the building had been assaulted by members of the sophomore class. Members of the freshmen class going to the hall were set upon and maltreated. The most active agent in causing disorder was a chemical compound which was foul smelling and dangerous to the extent that it would destroy clothing and burn the skin. One young lady received this in her eyes and in consequence was unable to see for several

days. Two students were arrested. The mayor finally dispersed the students by ordering the fire department to turn water upon them. The affair caused a great uproar among the students and was widely reported in the newspapers.

I looked upon this affair as thoroughly disgraceful. That young men should invite young women to go to a social gathering, and that young women should accept such invitations, with the perfect understanding that there was likely to be a physical contest, and that any student would throw a chemical into the face of another, knowing that it was likely to disfigure that face and destroy eyesight for life, was to me amazing.

I called a meeting of the Council of Administration at nine o'clock the next morning and we commenced an investigation which lasted almost uninterruptedly for ten days. Upon advice of the Council a convocation of all connected with the University was held at four o'clock upon the next afternoon after the occurrence, at which the degrading character of the affair was commented upon and the sense of right and decency in the student body was appealed to. Offenders were asked to come and admit their participation in order that there might be some excuse for leniency, but none came. The senior and freshman classes very soon held meetings and expressed their regrets.

For several days it seemed as though we should be unable to locate definitely the responsibility. I was surprised to find that the thought was very prevalent in the student body that it was disloyal for one student to inform against another, no matter how serious an offense had been committed. The position was taken that, while the University would look with disfavor upon tattling among students in all ordinary affairs, yet it was the duty of a student to answer all questions touching violation of law or grave misconduct endangering the life or reputation of an institution, and that students known to have material information of such misconduct and refusing to divulge it would be expelled. The greatest stress was laid upon efforts to ascertain who had procured, given out, or thrown the chemical which was the great agent for all the mischief, and also who had been in league with or opposed the police.

Early in the investigation the following letter was sent to the State's Attorney of Champaign County, which will indicate my views upon a very important phase of the subject:

PRESIDENT'S OFFICE, UNIVERSITY OF ILLINOIS.

January 25, 1897.

Hon. A. J. Miller, State's Attorney, Urbana, Illinois:

DEAR SIR: --It seems well to express to you the earnest desire of all connected with the management of the University that the students who threw a noxious and dangerous chemical, and who resisted the police in the streets of Urbana Thursday night last, shall be brought to justice. Students who were only present, or mere on-lookers, are probably not blameless, although there are some extenuating circumstances in their cases; but one who threw a chemical into the crowd, knowing that it would destroy clothing and was likely to disfigure the face or destroy the eyesight of another for life, deserves nothing short of imprisonment; and one who in any way participated in securing or preparing the foul compound, or otherwise contributed to the results deserves the same thing; so does one who resisted or assaulted the police; and one who has information which would convict another of a crime, and refuses to divulge it, becomes a participant therein, and is little less deserving of the severest punishment. No code of honor can be invoked to justify one in protecting an enemy of public order. These matters go to the very stability of society and to the very life of the University. The very fact that the evil doers are college students affords no shadow of excuse for them. Indeed their crimes are the more reprehensible and deserving of the severest punishment, because of their intelligence and because they ought to be counted upon to support rather than overthrow the law.

The University authorities are investigating every scrap of information bearing upon the unfortunate affair, with the intention of requiring all who have forfeited the privileges of the University to withdraw therefrom. As was to have been expected, we are experiencing some difficulty in securing reliable evidence fixing the responsibility upon individuals, but we have much information and the net-work is beginning to draw closely about a relatively small number who are apparently guilty. With your better facilities for compelling the attendance of all witnesses and examining them under oath, and with the aid of judicial forms and experience, I am sure you can locate the blame with greater certainty and come nearer reaching all who are culpable.

We shall be glad to put you in possession of such information as we have and will support you in all ways we can. If you should think that you need the assistance of associate counsel, the University will provide it, and we will be obliged to you for any evidence touching the guilt of students, which you or the police may have.

The most energetic action by the University and the public prosecutor, acting together, is demanded by all the circumstances of the case. There is every reason to believe that only a small number of students are seriously implicated. The rest should be relieved of the stigma which must rest upon all unless the guilty are punished. The people of the State who support this University, and who have a pride in its development, must be shown that the University is able to rid itself of the unworthy and that the people of the cities in which it is located have moral sense, civic pride, and nerve enough to take a course which will prevent a recurrence of such a flagrant violation of the public peace.

Very truly yours,

A. S. DRAPER,
President.

The investigation revealed the fact that the chief of police of the city of Urbana was intoxicated upon the evening of the disturbance and was really in league with the mischief makers. The mayor of that city was advised by me, in writing, of that fact, and an offer made to aid him in securing the evidence which would establish the charge, but nothing was done by either the State's Attorney or mayor in the directions indicated.

A patient and painstaking investigation finally established the guilt of nine students, and as a result one of them was suspended for the rest of the year and eight were expelled.

No mistakes were made, for in each case there was a subsequent admission of the correctness of the finding of the council. No student was expelled who did not procure, distribute, or use the chemical, and who, in addition to this, did not either refuse information or answer untruthfully.

Subsequent to this investigation, at my request, all the members of the freshman class and all save half a dozen of the sophomore class have joined in assurances to the Council of Administration that they will attend no more secret class gatherings and will not engage in any assault upon students, and that they will do what they can to uphold the authorities of the University.

It will scarcely be appreciated by one not upon the ground, but it is nevertheless a fact that this affair caused us more trouble and put upon the University authorities a heavier weight of responsibility than we have heretofore been called upon to bear while I have been associated with the institution. To expel so many students, and thus break up their college course, is a serious matter. It involved a great deal of sorrow as well as perseverance on the part of the University authorities, and nothing but humiliation for the accused and grief for parents and friends. I am sure that if all students could have seen all phases of the matter, there would be no repetition of the conduct which necessitated this action.

We have done what we could to impress a useful lesson upon all connected with the University. I have no sympathy whatever with the idea that there is a standard of conduct and honor for college students which is at all different from the standards which all good citizens uphold and observe. Nor can

I look with indifference upon that tendency which is common in college life to shield another by refusing information or by lying, no matter of what offense that other may be guilty. Society could not exist upon such a basis, and neither can universities. When offenses are committed which tear down or stain the good name of a great institution, every true man's hand must be against the offender.

I believe all connected with the University see these things more clearly than before this unfortunate occurrence. I observe no resulting ill will among the students. The extent to which the Faculty and the students and the alumni of the University, as well as the people in the adjacent cities, and particularly the warmth with which the newspaper press of the State has sustained us in this trying emergency, is extremely gratifying.

I ought to add that the Faculty has been thoroughly united touching all that has been done regarding this unhappy incident in our University life, and that the members of the Council of Administration are specially deserving of commendation for the patience and persistence with which they pursued a tedious and trying investigation. The result certainly vindicates the wisdom of the Board of Trustees in creating the Council of Administration and in vesting that body with complete jurisdiction over the discipline of the University.

A. S. DRAPER,
President.

Upon motion of Mr. Smith, the Board unanimously approved and heartily commended the Council of Administration in relation to the disturbances which recently occurred between the freshman and sophomore classes on January 21st last.

Upon motion of Mr. McLean, it was voted that the paper be printed as a part of the minutes of the Board.

The following resolution was adopted:

BASE-BALL GAME AT BELOIT.

WHEREAS, The University of Illinois base-ball team played an inter-collegiate game with the team of Beloit College at Beloit, Wisconsin, in May last under an agreement that Beloit should pay Illinois the sum of \$70.00 to cover their expenses and Beloit refused to finish the game because of an alleged erroneous ruling of the umpire and also refused to pay over the money, although they received all of the gate receipts and

WHEREAS, It was mutually agreed to submit the whole matter to Mr. Casper W. Whitney, athletic editor of Harper's Weekly, to decide what was right and to abide his determination and

WHEREAS, After hearing and considering the matter, Mr. Whitney decided that there was no ground for the Beloit team refusing to finish the game and that it should pay the money to the Illinois team without further delay, and

WHEREAS, The Beloit team still refuses to pay over the money, therefore

Resolved, That a respectful communication be sent to the Board of Trustees of Beloit College stating the facts and requesting said Board to require the Athletic Association or Managers at said College to pay said money to the Athletic Advisory Board of this University without further delay.

The following recommendations with regard to the management of the affairs of the Agricultural Experiment Station were presented by President Draper, and were adopted on motion of Mr. Raymond:

AGRICULTURAL EXPERIMENT STATION.

By law the management of the Agricultural Experiment Station is vested in the Trustees of the University. That the two institutions are placed under one management signifies the legislative intent that they shall supplement each other and that their work shall be related. The Station work should be aided, whenever practicable, by the professors in the University and in return should afford material for their scientific courses. The accounts of the Station should be kept separately and the funds of each institution should be used for its work, but with a view to promoting the effectiveness of the other so far as is not inconsistent with its own interests. To secure results in the administration of the affairs of the Station it must have an organization of its own, with executive authority and centralized accountability; but to secure coöperative effort and that unity of spirit which is important among all the different interests under the management of the Trustees of the University, that organization must be subordinate to the general administrative officers of the University. It is of the highest moment that the work of the Station shall be of a practical character and bear directly upon the agricultural interests of Illinois and hence that the management of the Station shall have the advice, regularly and continuously given, of persons who may be safely assumed to represent those interests with intelligence and foresight. To attain these ends the following regulations are adopted for the administration of the Station.

1. The Dean of the College of Agriculture shall be, *ex-officio*, Director of the Agricultural Experiment Station.

2. The Director of the Station shall have the custody of all property appertaining to the Station; shall be responsible for its proper care, and shall see that all buildings, lands, roads, implements, animals, etc., are maintained in a thrifty and attractive condition; shall have supervision of the officers and employes of the Station, laying out their work so that it will be of interest and consequence to the farmers of the State, and shall see that that work is prosecuted with capability and assiduity and reported in timely bulletins; and shall employ such authorized assistants and laborers as may be necessary, require faithful service, and discharge them at his discretion. In a word, he shall be the administrative head of the Station, vested with complete executive authority, and charged with responsibility for carrying out the action of the Board of Trustees and attaining the purpose for which the Station was established, in the largest measure practicable.

3. The Board of Trustees will appoint all officers of the Station and fix their compensation, and will from time to time grant appropriations for paying other employes and laborers and meeting all the other expenses of the Station, but such employes and laborers shall be appointed by the Director. For any act, however, incurring financial liability, or continuing the same, the Director must find his authority in the action of the Board of Trustees.

4. The Director shall make formal, written reports to the President of the University on the first day of each month. These reports shall keep the President advised in a general way, of:—(a) changes in employes; (b) the operations upon the farm, so far as crops and their disposition are concerned; (c) the accession of animals and the death or disposition of any; (d) the results of the dairy operations; (e) the work of the horticulturists. (f) the character of experiments undertaken, and the progress thereof; (g) the progress of the work upon bulletins, and the publication of the same; (h) any other matters of interest appertaining to the Station. In the absence of specific directions from the Board of Trustees the Director shall advise with the President touching any unusual matter, and shall follow any directions which that officer may think necessary to give. And, prior to each meeting of the Board of Trustees, he shall deliver to the President, for transmission to the Board of Trustees, any information or recommendations which he may think well to offer that body.

5. All Station accounts shall be kept by the Business Manager of the University, and all business transactions shall be subject to the rules of the Board of Trustees concerning general University business.

6. The Director shall require officers having charge of experiments, or taking observations, to report the same to him with regularity and as often as the nature of the same may make it desirable, and he shall cause the records thereof to be neatly transcribed in substantial books for preservation.

7. There shall be an Agricultural Experiment Station Advisory Board consisting of the Director of the Station, the Vice-President of the University, the Director of the State Laboratory of Natural History, two members of the Board of Trustees to be appointed by the Board at the annual meeting at which it selects its own officers and one member to be appointed by the Board upon the recommendation of each of the following bodies, viz.: The State Board of Agriculture, the State Horticultural Society, and the State Dairymen's Association. The Advisory Board shall select its own presiding officer and shall meet quarterly in the week prior to the meeting of the Board of Trustees at such particular time as it shall determine. The Director shall lay all needed information touching the work of the Station before the Advisory Board, and it shall consider and recommend to the Board of Trustees such lines of policy and such scientific experiments as it believes of most consequence to the agricultural prosperity of the State. The Director shall keep a record of the proceedings of this Board and transmit its recommendations to the President of the University for presentation to the Board of Trustees.

Upon recommendation of the General Faculty authority was given to confer the degree of B. S. in Architecture upon Edward Ellsworth Orr. Also upon recommendation of the General Faculty it was voted to increase the number of Fellowships from six to eight, and to make the stipend attached to each \$300.00 a year.

The following resolution was adopted:

Resolved, That the Board of Trustees of the University of Illinois, in recognition of the liberality of the donors mentioned in the following list of persons and institutions, who have contributed valuable publications to the Astronomical Observatory of this University, returns to them severally its grateful acknowledgement and thankful appreciation of their generous courtesy:

Titles of Work.	No. of Volumes.	From What Institution.	By Whom Presented.	Value.
Harvard Photometry.....	25	Harvard College Obs'y..	Prof Pickering.....	\$125 00
Pub. of Amer. Ephemeris..	10	U. S. N. Obs'y.....	Prof. Newcomb.....	50 00
Pub. Washburn Obs'y....	8	Washburn Obs'y.....	Prof. Comstock.....	50 00
Star Catalogues.....	2	U. S. W. Dept.....	Superintendent.....	20 00
Von Engelhart's Pub.....	2	Priv. Ast. Obs., Dresden.	Baron v. Engelhardt	10 00
Pub. of von Kussner's Observatory in Vienna.....	4	Von Kussner's Obs'y....	Prof. L. D'Ball.....	40 00

Twelve or fifteen volumes of Coast Survey Reports by the Superintendent of the Coast Survey, and a large number of pamphlets and minor publications.

Also the following:

Resolved, That the sum of one hundred and eighty dollars be appropriated for collimating telescopes, and equipping them, at the Observatory; and also that the sum of seventy-five dollars be appropriated for painting the internal surface of the dome, and calking and cementing the doors and windows at the Observatory.

The President presented a communication from certain florists in the neighborhood objecting to the University selling plants and cut flowers, in answer to which the Secretary was directed to reply respectfully that the University never seeks a commercial business and never solicits buyers; but when in the prosecution of its ordinary work, it has products which people are glad to come and purchase, and it can thereby extend its work, it must feel free to do so; and

that the small sale of flowers can not be held to work a hardship to others, when it is remembered that such sales have been made from the beginning, and long before the correspondents engaged in business; and also that the growth of the University has created a demand for flowers many times greater than its own sales.

The matter of making an appropriation to print the prize essay on Banking in Illinois, written by Charles Hunter Garnett, a graduate of the University in 1896, was, on motion of Mr. Morrison, referred to the Committee on Publication, with instructions to examine the essay and report to the board at its next meeting.

Professor Kinley's title was changed to "Professor of Economics."

A telegram was received from Mr. Inglis stating that he was unavoidably detained in Springfield and could not attend this meeting of the Board.

The following resolution was adopted:

Resolved, That appropriate certificates shall be issued at the proper time to graduates of the School of Pharmacy who are duly recommended therefor by the faculty of the said School and approved by the vote of the General Faculty of the University.

Upon recommendation of the Council of Administration, the Board, on motion of Mr. Armstrong, approved the following additions and changes in the catalogue:

1. The announcement of a Law School.
2. The announcement of a course, in the College of Literature and Arts, *preparatory to law*. This course is composed of subjects now offered in the departments of economics, history, public law and administration and rhetoric, and is announced as a course likely to constitute one year's work of the three required for the degree of Bachelor of Laws.
3. The readjustment of the courses in physics, chemistry, and electrical engineering, necessitated by the appointment of a new professor of physics a year ago.
4. The addition of a course in philosophy and one in English Literature.
5. The reduction of the number of credits required for graduation in the chemical group, College of Science, from 41 to 40. This will make the requirement uniform in all departments of the University.
6. The arrangement of courses in elementary chemistry and physics conjointly, leading to the degree of B. S., and a change of the name of the "Chemical Group" to that of the "Chemical and Physical Group."
7. The reconstruction and extension of the courses in astronomy in the mathematical group, College of Science.
8. Sundry unimportant changes, not numerous, made necessary by the above changes.

On motion of Mr. McLean it was voted that the standing committees of the Board should be as follows:

Agriculture, four members; *Buildings and Grounds*, four members; *Finance*, three members; *Instruction*, four members; *Publication*, three members; *Library*, five members, including the President of the University, the Business Manager, and the Librarian; *Students' Welfare*, four members; *School of Pharmacy*, five members, including the President of the University and the Business Manager.

The Report from the Advisory Board of the Agricultural Experiment Station, and from the Director of the Experiment Station were presented by President Draper and were referred to the Committee on Agriculture.

A communication was received from Mr. H. H. Greene, of Bloomington, tendering his resignation as a member of the Advisory Committee of the School of Pharmacy, on the ground of his having accepted another official position, and of his having retired from the practice of Pharmacy. The resignation was accepted.

The proposition of Ottenheimer & Co. with regard to uniforms for the Battalion was referred to the Secretary and Business Manager.

The request of I. H. Hill for the return of fees was denied.

President Draper said that he had been consulted by the city authorities of Urbana with regard to joining with the city in paving University Avenue along the north of the campus and on the east between University Avenue and White Street. The Board instructed the Secretary to notify the Mayor of the City of Urbana that the Board was in favor of the construction of the pavement, and would ask the Legislature to make an appropriation covering its share of the expense.

The Board appropriated \$275.00 or so much thereof as might be needed, for the purchase of the instruments mentioned below for use of the Department of Mechanical Engineering.

1. A locomotive registering speed counter. 2. A special pyrometer. 3. A carpenter separating calorimeter. 4. Three way cocks and detent motives.

A further request from the department of mechanical engineering for \$150.00 for running expenses of the mechanical engineering laboratory during a spring term, was denied.

President Draper presented the report of the Superintendent of Buildings and Grounds which was referred to the Committee on Buildings and Grounds.

It was voted that the Business Manager, after consulting with Professor Carman, should order, upon a satisfactory bid, physical apparatus and supplies, to be imported, not exceeding in amount \$1,000.00.

Mr. N. W. Graham's bill for expenses, amounting to \$15.32, was ordered paid.

The Secretary stated that Mr. A. D. Barber, of Hamilton, Mr. E. A. Riehl, of Alton, and Mr. H. B. Gurler, of DeKalb, had been recommended by the Illinois State Board of Agriculture, The Illinois State Horticultural Society, and The Illinois State Dairymen's Association, respectively, to represent them on the Advisory Board of the Agricultural Experiment Station. These gentlemen were appointed as recommended.

Messrs. Raymond and Morrison were also appointed members of the Advisory Board.

On motion of Mr. Raymond, \$500.00 was appropriated with which to make an exhibit at the next Illinois State Fair, and the arrangements for the exhibit were put in charge of the President of the University and the Faculty.

On motion of Mr. Smith the Board adjourned to meet at 9 o'clock a. m., Wednesday.

SESSION OF WEDNESDAY.

The Board met pursuant to adjournment at 9 o'clock Wednesday morning and there were present the same members as on the afternoon before, excepting Mr. Pearce.

President McKay announced committees as follows:

STANDING COMMITTEES.

Agriculture.—Raymond, Morrison, McLean, Pearce.

Buildings and Grounds.—Bullard, Flower, Armstrong, Raymond.

Finance.—Smith, McLean, Morrison.

Instruction.—Flower, Inglis, Armstrong, Raymond.

Publication.—Morrison, Draper, Pillsbury.

Library.—Draper, Inglis, Carriel, Shattuck, Bicknell.

Students' Welfare.—Carriel, Flower, Smith.

Pharmacy.—McLean, Armstrong, Bullard, Draper, Shattuck.

COLLEGE OF PHYSICIANS AND SURGEONS.

Mr. Armstrong offered the following preamble and resolutions which were adopted:

WHEREAS, The College of Physicians and Surgeons, of Chicago, has made a proposition to the University of Illinois, whereby a department of medicine can be established in connection with said university without expense to the State for maintenance, therefore, be it

Resolved, That the University of Illinois shall hereby establish a medical department in the City of Chicago, and that the property known as the College of Physicians and Surgeons shall be leased for that purpose upon terms to be mutually agreed to by committees from the two institutions; that a committee consisting of the President of the University, the Business Manager, and three members of the Board of Trustees, to be appointed by the Chairman of the Board, shall be given power to execute a lease upon such terms as they shall agree.

The President appointed on this committee Mr. Armstrong, Mrs. Flower, and Mr. Smith.

On motion of Mr. Bullard the election of a Treasurer was postponed until the next regular meeting.

On motion of Mr. Morrison, the Committee on Finance was instructed to present to the Trustees at that meeting the name of a person suitable to be appointed Treasurer.

The Committee on the School of Pharmacy made the following report:

SCHOOL OF PHARMACY LEASE.

URBANA, ILLINOIS, March 10, 1897.

To the Board of Trustees of the University of Illinois:

Gentlemen:—Your Committee on the School of Pharmacy begs leave to report that the lease on the building occupied by the School of Pharmacy expires May 1, 1897. Your Committee suggests that it be authorized to lease the premises now occupied on such terms as may be deemed best for the interests of the School, and to report its action at the next meeting of the Board.

Respectfully submitted,

ALEX. McLEAN,
A. S. DRAPER,
S. W. SHATTUCK,

Committee on School of Pharmacy.

On motion of Mr. Smith the report of the Committee was approved, and the authority asked for was given.

On motion of Mr. Morrison \$500 was appropriated for the Summer School.

The Secretary presented to the Board applications from two parties for the position of superintendent of buildings and grounds. It was also stated by members of the Board that a large number of similar applications had been received by them. In view of this the Board adopted the following preamble and resolution:

WHEREAS, Numerous applications have been made to the Board for the position of superintendent of buildings and grounds when there is no vacancy in said position, therefore

Resolved, That in the opinion of the Board all University positions should be kept on the merit basis. No officer or employé should be removed except for good cause, and whenever an appointment is made, it should be made solely with regard to special fitness.

On motion of Mr. Raymond, Mr. Heath and Professor Talbot were invited to make a statement with regard to the proposed celebration by the Alumni Association at commencement time.

On motion of Mr. Bullard, the following resolution was adopted:

Resolved, That the sum of \$500 be appropriated for commencement expenses to be in charge of a committee consisting of Messrs. Raymond and Smith and President Draper and that, if such committee think it well, and is able to purchase permanent table furnishings for the future use of the University out of such appropriation, they be at liberty to make such purchase.

The Executive Committee reported that, January 12, 1897, upon recommendation of the Director of the State Laboratory of Natural History, it had made the salary of Mr. C. C. Adams, entomological assistant in the State Laboratory of Natural History, \$50 a month.

This action of the Executive Committee was confirmed.

The bill of the Garvin Machine Co., of New York, amounting to \$82.46, for freight and repairs on machines loaned to the University at the time of the World's Fair, was ordered paid.

President Draper reported with regard to employing counsel by the Board that the special committee to which the matter was referred considered that, in view of the establishment of a Law School, such an appointment would not be necessary.

The report of the committee was approved and the committee discharged.

The Secretary presented the Treasurer's report, which was referred to the Committee on Finance.

TREASURER'S REPORT.

CHARLES W. SPALDING, TREASURER, IN ACCOUNT WITH THE UNIVERSITY OF ILLINOIS

DECEMBER 31, 1896.

1896.		<i>Dr.</i>		
September	30	Balance.....		\$285,713 49
October	2	Jasper county coupons, due October 1, 1896.....	\$750 00	
	7	U. S. Experiment Station warrant, due October 1, 1896..	3,750 00	
	10	From S. W. Shattuck, on account of School of Pharmacy	2,000 00	
	15		1,000 00	
	31	From S. W. Shattuck, paid warrants on account of farm fund	250 00	
	31	From S. W. Shattuck, paid warrants on account of general fund	2,409 84	
November	4	From S. W. Shattuck, on account of School of Pharmacy	2,000 00	
	12		1,000 00	
	14	Union school district, Cass county coupons, due November 1, 1896.....	325 00	
	16	From S. W. Shattuck, on account of general fund	2,000 00	
	30	From S. W. Shattuck, paid warrants on account of general fund	1,809 12	
December	2	Remainder of principal on land contract No. 53, Frank Novotny	500 00	
	2	Interest on land contract No. 53	36 66	
	16	From S. W. Shattuck, on account of School of Pharmacy	2,000 00	
	24		2,000 00	
	24	Principal on land contract No. 117, Joseph Cuta.....	180 00	
	28	Crawford county coupons, due January 1, 1897.....	600 00	
	28	Gallatin county coupons, due January 1, 1897.....	630 00	
	29	Remainder of principal on land contract No. 63, R. O. Braaten.....	62 75	
	29	Interest on land contract No. 63	4 39	
	29	Principal on land contract No. 80, W. Doering	120 00	
	29	Interest on land contract No. 80	50 40	
	30	Principal on land contract No. 65, Joseph Cuta.....	100 00	
	30	Interest on land contract No. 65	28 00	
	31	Principal on land contract No. 116, Joseph Hollan	49 40	
	31	Interest on land contract No. 116.....	86 30	
	31	From S. W. Shattuck, paid warrants on account of general fund	2,388 52	
	31	From S. W. Shattuck, paid warrants on account of farm fund	510 98	
	31	From C. W. Spalding, treasurer, interest at 4 per cent on endowment fund for October, November, and December, 1896	366 54	
	30	From C. W. Spalding, treasurer, interest on all other funds at 2½ per cent for October, November, and December, 1896.....	1,236 18	\$28,244 08
				<u>\$313,957 57</u>
1896.		<i>Cr.</i>		
December	31	By amount paid out of general fund, as per list of warrants herewith.....	\$13,508 16	
	31	By amount paid out of U. S. Experiment Station fund, as per list of warrants herewith.....	3,821 64	
	31	By amount paid out of farm fund, as per list of warrants herewith.....	844 25	

Treasurer's Report—Concluded.

December	31	By amount paid out of School of Pharmacy fund, as per list of warrants herewith.....	4,075 42	
"	31	By amount paid out of U. S. fund, as per list of warrants herewith.....	13,327 37	
"	31	By amount paid out of the following state appropriations, as per list of warrants herewith—		
		Salaries, etc.....	22,232 62	
		Library building.....	40,861 48	
		Library.....	1,399 58	
		Laboratory of Natural History.....	2,056 41	
		Engineering College.....	2,062 84	
		Astronomical Observatory.....	394 61	
		Fitting and furnishing Engineering Hall.....	318 68	
		Biological Experiment Station.....	357 41	
		Apparatus and material.....	1,324 96	
		Shop practice.....	837 44	
		Chemical Laboratory.....	381 09	
		Laboratory of Vegetable Physiology.....	29 00	
		Fire protection.....	598 59	
		Paving streets and walks.....	63 09	
		Vaccine Laboratory.....	494 09	
		<i>Balances—</i>		
		General fund.....	\$8,130 79	
		Endowment fund.....	37,184 58	
		School of Pharmacy.....	3,851 31	
		United States fund.....	5,220 20	
		U. S. Experiment Station fund.....	1,036 41	
		Farm fund.....	412 21	
		<i>State Appropriations—</i>		
		Salaries, etc.....	59,198 88	
		Library building.....	66,305 47	
		Library.....	1,601 47	
		Laboratory of Natural History.....	5,408 91	
		Cabinets.....	1,648 95	
		Engineering College.....	2,859 82	
		Astronomical Observatory.....	4,132 69	
		Fitting and furnishing Engineering Hall.....	1,152 03	
		Biological Experiment Station.....	1,142 59	
		Apparatus and material.....	1,708 26	
		Shop practice.....	472 12	
		Chemical Laboratory.....	1,121 26	
		Laboratory of Vegetable Physiology.....	59 02	
		Fire protection.....	353 61	
		Vaccine Laboratory.....	1,978 29	
				204,968 84
				\$313,957 57

The Business Manager, Professor S. W. Shattuck, presented his report.

BUSINESS MANAGER'S REPORT.

UNIVERSITY OF ILLINOIS, March 9, 1896.

James E. Armstrong, Esq., President of the Board of Trustees, University of Illinois.

SIR:—I have the honor to present to you herewith the following report:

Paper A is a statement of the general current appropriations December 3, 1896.

Paper B is that for the State appropriations.

Paper C is that for the U. S. fund.

Paper D is that for the Laboratory of Natural History.

Paper E is that for the Agricultural Experiment Station.

Paper F is that for the School of Pharmacy.

Paper B—State Appropriations—Concluded.

December 31, 1896.	Received.	Expended.	Balance.	Assigned.
<i>Salaries, etc.—Concluded.</i>				
Furnishing Astronomical Observatory.....	300 00	161 13	138 87	138 87
Zoological department.....	95 00	.....	95 00	95 00
Bronze tablet.....	175 00	.....	175 00	175 00
Electric lighting.....	200 00	197 86	2 14	2 14
Physics.....	600 00	.....	600 00	600 00
Unassigned.....	46,119 10	.....	46,119 10	.....
	\$180,000 00	\$125,599 38	\$54,400 62	\$8,281 52
<i>Apparatus and materials—</i>				
Closed out.....	\$1,400 00	\$1,400 00	.....	.....
Applied chemistry.....	100 00	5 20	\$94 80	\$94 80
Chemistry.....	700 00	506 12	193 88	193 88
Psychology.....	300 00	258 66	41 34	41 34
Zoology.....	800 00	608 25	191 75	191 75
Physiology and hygiene.....	800 00	520 60	279 40	279 40
Botany and horticulture.....	680 00	647 89	32 11	32 11
Geology.....	400 00	328 51	71 49	71 49
Mathematics.....	300 00	300 00	.....	.....
Astronomy.....	500 00	41 86	458 14	458 14
Unassigned.....	20 00	.....	20 00	.....
	\$6,000 00	\$4,617 09	\$1,382 91	\$1,362 91
<i>Operating Biological Experiment Station.....</i>	\$3,000 00	\$1,999 21	\$1,000 79	\$1,000 79
<i>Paving streets, etc.....</i>	\$9,300 00	\$9,300 00	.....	.....
<i>Laboratory of Vegetable Physiology.....</i>	\$2,000 00	\$1,940 98	\$59 02	\$59 02
<i>Astronomical Observatory.....</i>	\$15,000 00	\$10,727 98	\$4,272 02	\$4,272 02
<i>Library Hall.....</i>	\$150,000 00	\$83,694 53	\$66,305 47	\$66,305 47
<i>Fire protection.....</i>	\$2,000 00	\$1,646 39	\$353 61	\$353 61
<i>Library.....</i>	\$6,000 00	\$4,897 85	\$1,102 15	\$1,102 15
<i>Shop practice.....</i>	\$3,000 00	\$2,563 34	\$436 66	\$436 66
<i>Chemical Laboratory.....</i>	\$5,000 00	\$3,894 34	\$1,105 66	\$1,105 66
<i>Vaccine Laboratory.....</i>	\$3,000 00	\$1,078 49	\$1,921 51	\$1,921 51
<i>Cabinets—</i>				
Geology.....	\$400 00	\$351 05	\$48 95	\$48 95
General.....	600 00	.....	600 00	600 00
Unassigned.....	1,000 00	.....	1,000 00	.....
	\$2,000 00	\$351 05	\$1,648 95	\$648 95
<i>College of Engineering—</i>				
Machine shop.....	\$17,008 04	\$17,008 04	.....	.....
Mechanical engineering.....	3,104 85	2,900 78	\$204 07	\$204 07
Electrical engineering and physics.....	3,829 85	3,092 23	737 62	737 62
Civil engineering.....	1,852 42	1,535 47	316 95	316 95
Laboratory of Applied Mechanics and Municipal and Sanitary Engineering..	1,852 42	1,212 57	639 85	639 85
Architecture.....	1,752 42	1,308 66	443 76	443 76
College of Engineering.....	600 00	353 97	246 03	246 03
	\$30,000 00	\$27,411 72	\$2,588 28	\$2,588 28
<i>Furnishing and Fitting Engineering Hall—</i>				
Electric wiring.....	\$1,191 77	\$1,191 77	.....	.....
Civil engineering.....	478 43	412 13	\$66 30	\$66 30
Architecture.....	770 98	605 69	164 69	164 69
Municipal and Sanitary Engineering.....	401 30	234 53	166 77	166 77
Mechanical department.....	563 78	324 30	239 48	239 48
Electrical engineering and physics.....	1,193 39	813 24	380 15	380 15
College library, parlor, etc.....	400 95	266 31	134 64	134 64
	\$5,000 00	\$3,847 97	\$1,152 03	\$1,152 03

PAPER C—UNITED STATES FUND.

<i>December 31, 1896.</i>	Received.	Expended.	Balance.	Assigned.
<i>Year ending June 30, 1897.</i>				
Salaries for instruction.....	\$22,000 00	\$21,205 59	\$794 41	\$794 41

PAPER D—LABORATORY OF NATURAL HISTORY.

<i>December 31, 1896.</i>	Received.	Expended.	Balance.	Assigned.
General balance July 1, 1896.....	\$246 73	.....	\$246 73	\$246 73
Salaries.....	3,650 00	\$1,605 81	2,044 19	2,044 19
Field, office, etc.....	1,500 00	780 69	719 31	719 31
Library.....	1,000 00	277 65	722 35	722 35
Bulletins.....	500 00	241 61	258 39	258 39
Report of Entomologist.....	250 00	39 00	211 00	211 00
Contagious diseases of insects.....	1,500 00	641 52	858 48	858 48
Biological Experiment Station.....	1,500 00	1,497 28	2 72	2 72
	\$10,146 73	\$5,083 56	\$5,063 17	\$5,063 17

PAPER E—AGRICULTURAL EXPERIMENT STATION.

<i>For the quarter ending December 31, 1896.</i>	Appropriated.	Expended.
Salaries.....	\$3,798 22	\$3,798 22
Labor.....	1,540 20	1,540 20
Publications.....	452 25	452 25
Postage and stationery.....	20 60	20 60
Freight and express.....	51 56	51 56
Chemical supplies.....	57 17	57 17
Seeds, plants, sundries.....	238 26	238 26
Feeding stuffs.....	143 68	143 68
Library.....	123 84	123 84
Tools, implements, and machinery.....	122 69	122 69
Furniture and fixtures.....	131 28	131 28
Scientific apparatus.....	309 49	309 49
Live stock.....	121 75	121 75
Traveling expenses.....	115 69	115 69
Contingent expenses.....	48 78	48 78
Buildings and repairs.....	224 54	224 54
	\$7,500 00	\$7,500 00

Farm fund.....	\$1,530 00	\$1,495 22	\$34
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PAPER F—SCHOOL OF PHARMACY.

<i>For the quarter ending December 31, 1896.</i>	Appropriated.	Expended.	Balance.
Salaries for instruction	\$2,250 00	\$1,928 49	\$321 51
Salaries for services.....	750 00	750 00	.....
Buildings and grounds.....	2,000 00	1,954 01	45 99
Fuel and lights	403 54	370 16	33 38
Stationery and printing.....	100 00	96 58	3 42
Furniture and fixtures	100 00	38 16	61 84
Laboratories	1,000 00	391 37	608 65
Incidentals.....	220 23	220 23	.....
Sundries.....	208 52	150 54	57 98
Advertising.....	1,096 46	1,096 46	.....
Museum	25 00	1 25	23 75
	\$8,153 75	\$6,997 23	\$1,156 52

Paper G is an estimate of receipts and expenses for the six months ending June 30, 1897.

Paper H is a list of appropriations the Board is requested to make for the three months ending June 30, 1897.

Paper I is a statement of receipts for the three months ending December 31, 1896.

Paper K is a list of general University vouchers presented for audit, being 501 to 1,200, inclusive.

Paper L is a list of Laboratory of Natural History vouchers presented for audit, being 97 to 161, inclusive.

Paper M is a list of Agricultural Experiment Station vouchers presented for audit, being 78 to 200, inclusive.

Paper N is a list of School of Pharmacy vouchers presented for audit, being 39 to 102, inclusive.

Paper O is a bill of court expenses presented by Cunningham & Boggs.

Paper P is a statement and request in regard to the sale and purchase of several machines for the mechanical department.

Paper Q is a showing of the condition of the past due payments on land contracts January 20, 1897.

All holders of these contracts were informed that all past due interest should be paid or secured, if the contracts were to continue in force. About \$1,000.00 in interest has been collected by the Treasurer since the notification.

What further action shall be taken in the matter?

Respectfully submitted,

S. W. SHATTUCK,

Business Manager.

Papers K, L, M, and N, with vouchers, were referred to the Committee on Finance.

The matter of the land contracts was referred to the Finance Committee and Business Manager, with power to act.

On motion of Mr. Bullard, the appropriations asked for by the Business Manager were made, as follows:

APPROPRIATIONS.

Board expenses.....	\$500 00	
Salaries for instruction and President.....	\$27,000 00	
Salaries for services.....	3,300 00	
Buildings and grounds.....	1,000 00	
Fuel and lights.....	1,000 00	
Stationery, printing and postage.....	600 00	
Catalogue and advertising.....	2,000 00	
Repair shop.....	600 00	
Mechanical department.....	800 00	
Departments.....	300 00	
Laboratories.....	300 00	
Library and apparatus.....	50 00	
Incidentals.....	600 00	
Water supply.....	125 00	
Heating apparatus.....	400 00	
Accredited schools.....	200 00	
Minnesota and Nebraska lands.....	100 00	
		\$38,875 00
School of Pharmacy—		
Salaries for services.....	\$375 00	
Buildings, rents, etc.....	1,000 00	
Stationery, printing and postage.....	100 00	
Fuel and lights.....	100 00	
Laboratories.....	100 00	
Incidentals.....	200 00	
		\$1,875 00
Agricultural Experiment Station—		
General fund.....	\$3,750 00	
Farm fund.....	900 00	
		\$4,650 00

On motion of Mr. Morrison, Cunningham & Boggs's bill for court fees advanced in the Bruner case, amounting to \$12.50, was ordered paid.

Upon motion of Mr. Morrison, the Dean of the College of Agriculture was directed to have all animals belonging to the University and eligible to registry in the stock books duly registered, and also to place placards over their stalls indicating their names and breeding.

Mr. Raymond, from the Committee on Agriculture, returned the report of the Director of the Experiment Station with the recommendation that it be published and that the Station work be authorized and appropriations of Station funds be made as therein recommended.

The report of the Committee was concurred in.

AGRICULTURAL EXPERIMENT STATION,

URBANA, ILLINOIS, March 4, 1897.

Andrew S. Draper, LL. D., President University of Illinois,

DEAR SIR:—It seems well that at least once a year, and preferably at this time, the work of each department of the Station be carefully reviewed, and that general plans for the ensuing year be somewhat elaborated, to the end that the work of the Station may proceed in an orderly manner and its energies be directed along definite lines. Accordingly the head of each department has filed with the Director a detailed report of the condition of experiments assigned him, either in whole or in part, accompanied by plans for

future work. The salient points of these reports together with recommendations of the Director and certain other matters of interest are herewith transmitted as information and to serve as a basis for action by the Trustees.

Two years ago the institution owned but one registered animal, and was breeding her and her mates to unregistered bulls belonging to the neighbors. Happily the inconsistency of this practice at an institution offering instruction in the principles and practice of successful breeding was appreciated and we now own three registered bulls of the three most prominent breeds and from the choicest herds of the United States, besides three females of the Shorthorn breed, three of the Jersey, and nine of the Holstein-Friesian. We sold one Holstein-Friesian bull calf for \$100.00, and have on hand one other Holstein, and one Shorthorn. This is a total of twenty animals, either registered or capable of registry of which the Station has purchased three and the University eleven. Of the little flock of ewes three are picked specimens from the flock of George Allen, one of the most successful breeders of Shropshires in America. These additions to the live stock not only do the institution credit, but they mark a broader policy regarding agriculture here.

The first year of the new organization with a Director will have nearly expired before the time of the next meeting. The Station staff, except for unavoidable interruptions, sustains its regular weekly meetings as heretofore and to the informal discussions of these meetings is due much of the unity and efficiency of the work. As a result the work of this Station is not that of independence and often inharmonious interests, but rather that of an organized staff whose energies are expended along prescribed and closely related lines.

WORK OF THE YEAR.

Animal Husbandry.—Records are kept of the amount of milk and the per cent of fat for each cow in the herd. Accurate accounts were kept of the food and water consumed by each of two cows fresh on the same day. In this way a mass of material is on hand awaiting time for a study of the variations between cows in the matter of return for feed consumed. More data and more knowledge on this subject are greatly needed. The physiological requirements of the animal body have been largely overlooked and chemistry has stood for all that is scientific in the feeding problem. A preliminary excursion into this pioneer field of experimentation was made by feeding three calves at different times on rations destitute of coarse food. The results, together with data from a similar experiment by the author elsewhere, are reported in bulletin No. 46, which is just issued. These are the first of their kind, and show some unexpected facts as to the principles of nutrition, chief among which is this, that the food should be in every way suited to the habits of the species and the idiosyncrasy of the individual.

Two or three of the best native cows have been bred successively to the different bulls, hoping to raise from the same cows heifer calves that are grades with different breeds. It may lead to valuable facts and may lead to nothing, but we already have on hand a few grade heifers of this breeding. All grade males have been disposed of as property undesirable to retain upon the premises.

The rape plant is the cheapest food for sheep, but the southern limit of its successful growth has never been determined. Accordingly it was thoroughly tested on these grounds last year, where it made a truly wonderful growth. It can be recommended without hesitation to every flock master in the northern and central portions of the State. Whether it will thrive south of the black soils is not yet determined, but our experience of last year was not at all flattering.

There were growing on the grounds a great variety of forage plants in small amounts and it was determined to try them for ensilage as compared with corn, depending upon the appearance of the product and the verdict of the cattle to decide upon their merits. Neither broom-corn, sorghum, nor any of the Kafir corns is comparable with Indian corn, but teosinte appears

promising. Rape becomes, in the silo, a wet and compact mass that is not good silage, but an excellent protector to what is below. It is the best known material to exclude air, and would make excellent covering for the silo.

A quantity of oats was cut for hay, partly for the benefit of seeding, and partly to provide coarse feed for horses and cattle. It has proved more acceptable to both than the best of hay, and I have never seen a feed upon which horses thrived so well. It is so promising that I have recommended some careful experiments in the matter of oat hay for the coming year. If oat hay can be successfully cured in the average season its value for coarse feed is well nigh unprecedented. Large use has been made of cut corn stover and digestion experiments are in progress with four steers to determine accurately the digestibility of both the corn plant as it grows and the stalk after the ear has been removed. Strangely enough neither has ever been carefully determined. This investigation when worked out will be reported by the chemist, but we are expecting some valuable facts in addition to present knowledge concerning variation among animals in their process of digestion.

Dairying.—The results of experience with pasteurizing milk were written up by Mr. Powers, but have not yet been published. Further knowledge along the lines treated seems desirable. Mr. Fraser has made some preliminary studies as to the sources of contamination that are so surprising as to suggest further investigation. He has exposed more than 100 Petri plates in different places about the barn and dairy and made some sixteen bromide prints of resulting cultures. More bacteria are obtained on dishes exposed a foot below the ceiling than on those exposed at the floor level, and more from a proximity to the cattle than from the dust of the barn or of the fodder, which seems to indicate that the animals themselves are the chief source of infection. Twice as many bacteria fell on the plates exposed immediately after brushing the cows when the air appeared clear, as fell on plates exposed in the dusty air of the barn immediately after sweeping.

Mr. Fraser, under the direction of Dr. Burrill, is making experiments on the best nutrient media for culture of the bacteria that invade milk. This is all valuable work, and is the more important because almost entirely new. It ought to be continued carefully.

Some tests have been made in speed of separator and tester as affecting their efficiency, as well as temperature of milk for separation and for setting in the Cooley creamer. Substantial improvements have been made in the machinery of the dairy building and its arrangement, all of which have contributed to greater efficiency in labor and a better and more uniform product of milk.

Veterinary Science—Dr. Burrill and Dr. McIntosh made a number of examinations of supposed cases of hog cholera last fall without definite results, further than that the most of the animals examined proved to be troubled with swine plague rather than hog cholera. The whole subject is most vexatious, promising little relief except through the avenue of the bacteriological laboratory.

Agricultural Physics—Another yield of corn has been taken from the 160 tenth-acre plats, making the second series of yields. These are exceedingly valuable as affording a basis for comparing the natural productivity of the land in advance of experiments in which results will be judged by comparative yields. The variation between tenth-acre areas is from nothing to over 10 per cent in a good year, and much more in a bad year. To ascertain the personal equation of this land is the first step of a careful experimenter and a good start is made here. It may be worth stating that some of this land yielded over 96 bushels of shelled corn per acre and that the average of the field was 88 bushels.

During the winter the remainder of the fields devoted to experimental work have been accurately surveyed and definite boundaries established, so that cropping and fertilizing may be upon exact and well known areas, to the end that the history may be recorded of all the land under experiment or likely to come under experiment in future years. Language is not strong

enough to condemn sufficiently the practice of staking out plats each spring without reference to the previous history of the land, and this all but universal practice has been responsible for many misleading statistics.

A new method of determining comparative yields of varieties has been tested, found successful, and fully reported in bulletin No. 46. By this means the limit of error has been greatly reduced. The plan, though simple, has never been used elsewhere, and whatever is valuable about it is original with this Station.

Attempts to grow crimson clover have again been made with the usual degree of failure. The so-called northern grown seed that was warranted hardy failed as badly as any, and the experience almost warrants the conclusion that the crop is too precarious in this region to be profitable.

Teosinte promises well as a forage crop. The yield is immense, and as it never seeds in the United States, it affords a fine mass of leafy forage very acceptable to both cattle and horses, especially the latter.

Seed of Kafir corn was obtained from Kansas, and a yield of 45 bushels was secured. The stalk is woody, and makes but indifferent feed either green, cured, or as silage. Clearly it is the crop for the arid west, but it is too expensive of cultivation where weeds abound, and the yield is too light to warrant its use in the place of Indian corn.

A number of unusual crops were grown in small amounts to note their habits of growth and to enable more intelligent answers to be made to inquiries concerning the "wonders" advertised, with a shocking disregard of truth, in the catalogues of certain seed firms. Of this class is *saccaline*, which appears to be as worthless as any other smart-weed, and is but a poor second to its predecessor, prickly comfrey. Another is *spurry*, which is a dangerous weed; and another is the *flat-pea*, which animals, with a charming unanimity, refuse to eat. Answers to inquiries concerning this class of crops call for delicate discernment in the attempt to convey to the querist a sense of their utter worthlessness, particularly when backed by flaming advertisements and numerous "testimonials." The task is not rendered easier when we remember that most of them have been seized upon as curiosities and described in the Station bulletins of certain states, thus receiving a kind of endorsement of their value.

Botany—The statements regarding the work of the botanical department are drawn chiefly from the report of Dr. Burrill, botanist of the Station.

The regular investigations that have been made during the year have been prosecuted almost solely by Mr. George P. Clinton. The work has been principally devoted to the fungous diseases of plants, especially the so-called smuts. Broom-corn smut has been studied for two years. Very little had been previously done upon this disease anywhere, so that most of the knowledge obtained during these two years is new to science. The work for the year, of which this is a report, has been devoted to ascertaining the life history of the parasite by studies in the field and in the laboratory, to the determination of the amount of injury by it, and to methods of preventing its ravages. These studies have been successful and a bulletin of some forty pages is now in press giving in detail the outcome of the investigations. From this it will be seen that the disease is destructive a one, often diminishing the value of the crop from 2 to 50 per cent. As Illinois produces more broom-corn than any other state or country, it is peculiarly appropriate that the plant should have the attention of our Station. Feasible methods of preventing almost entirely this disease by the use of hot water have been ascertained.

Investigations have been continued on the smut of Indian corn, on the stinking smut of wheat, and on the loose smut of oats. Material is accumulating for a general bulletin upon the subject which may probably be issued after another season's work.

Other studies have been made upon weeds, especially those attracting most attention in Illinois. Much remains to be done in this line. There is comparatively little knowledge of the life histories of these noxious plants, and of

the real amount and kind of harm they do in the gardens and fields. The best methods of eradication have had too little attention from the standpoint of science.

Collections for the Station herbarium have been made of over 200 varieties of cultivated plants, over 100 numbers of the parasitic fungi, mostly of economic importance, and a considerable addition has been made to the preserved collection of weeds. Three hundred and thirty specimens of economic fungi have been selected from former collections and prepared for final determination and mounting and some 250 other specimens, chiefly weeds, have been mounted for the herbarium. To complete this laboratory work with the material on hand a large amount of work will still be required.

Chemistry—Owing to the fire in August the work of the chemical department for the year is practically within the current quarter. Samples of soils from the Stations at Odin and Edgewood were again taken to replace those lost by fire.

The principal work in hand has been a study of the chemical composition of corn, including

- (1) The composition of different varieties.
- (2) Variation in the composition of a single variety.
 - a. Of different samples grown in the same locality.
 - b. Of samples grown in different localities.
- (3) Variation in the composition of corn grown on different parts of the ear. This work is not completed. Partial analyses have been made of seventy-three different samples.

Entomology.—The consulting entomologist, Professor Forbes, has furnished copy for two valuable bulletins during the year, viz., No. 44, "Insect Injuries to the Seed and Root of Indian Corn," and No. 48, "The San José Scale." As State Entomologist, he has been active in attempting to locate, with the hope of exterminating it, the San José scale wherever it has gained a foothold within our borders, and the Station coöperates with him. The invasion was found to be more serious and the points of infection more numerous than at first supposed, and this bulletin, No. 48, now in press, is issued to inform orchardists of the presence and the nature of this hitherto unsuspected enemy.

Publications.—Five bulletins have been issued during the current year or are now in press, viz., Nos. 44 and 48 as above; No. 45, "Varieties of Apples;" No. 46, "Experiments with Corn," "Attempts to Grow Crimson Clover," "On the Improvement of Retentive Clays," etc., "On the Importance of the Physiological Requirements of the Animal Body," etc.; No. 47, "Broom corn Smut."

Publications from this Station have not been so numerous or voluminous as from certain of the neighboring states, many of them publishing at state expense, or from a special fund, thus making extensive publications easy. The publication of a bulletin of thirty-two pages and its distribution to 16,000 people is no small task, and represents an outlay of about \$300.00. With the funds in sight it is impossible to issue four such bulletins every year.

Correspondence.—As might be supposed the correspondence of the Station is heavy and likely to increase greatly. We have held ourselves ready to give such information as might be imparted within the limits of an ordinary letter. Correspondents often ask for more, and sometimes claim the right of long dissertations on cultivations of soils, the action of fertilizers, and other matters equally complicated.

The demand for free chemical analysis of soil, fertilizers, butter, water, etc., is frequently pressing, but people usually see our reasonableness when it is pointed out that we can not undertake work of purely private interest. Occasionally, however, the most courteous explanation fails to satisfy.

WORK ESPECIALLY RECOMMENDED FOR THE ENSUING YEAR.

Animal Husbandry.—The productive energy of the animal body whether measured in labor, meat, or milk varies greatly as between individuals, both absolutely and in proportion to food consumed. Not only that, the same individual is a more economical consumer of food at certain periods than at others, and these variations with fairly good animals are several times as great as a reasonable profit. I recommend a further study of variations in milk yield as related to food, to the individual, and to its surroundings, and that for a time this work be considered the principal matter of experimentation along the line of live stock.

The rape plant for sheep feed should be further tested here that its use may be encouraged, if further tests show it to be as valuable as experience elsewhere and preliminary work here seem to indicate.

Dairying.—(1) A study of the variations in milk, in connection with experiments in animal husbandry, to ascertain, if possible, how much is due to feed, how much to individual and how much to other circumstances.

(2) A study of the sources of contamination of milk to learn if the exclusion of unfriendly bacteria is feasible.

(3) An attempt to learn if aeration of milk is necessary to good flavor or to keeping quality.

Agricultural Physics.—The source of nitrogen for agricultural crops lies at the foundation of all rotations and of the use of leguminous plants in the economy of the farm. It needs further and persistent study. After a generation of work the problem is only recently taking on new and unexpected features.

The two great leguminous crops for Illinois are red clover, for the northern sections, and cow peas for the southern. Neither has been carefully studied. Red clover is probably capable of all the variations of wheat or oats, yet we have but one variety and do not quite know whether it is necessarily a biennial or not. I most heartily approve making these two crops a matter of special study; that their life histories and variations be studied, together with the best methods of seeding and the nature and limits of "sickness" supposed to follow always the too frequent planting of the same leguminous crop. All the experiments herein mentioned are along authorized lines of work, except this, which is in fact a study of the sources of nitrogen of agricultural crops, and I recommend its addition to the list.

Subsoiling should be carefully studied. The matter is agitating the public mind, and the nature of the practice is such as to affect the land for good or ill for a considerable time. We do not possess the data for intelligently answering whether subsoiling these prairie soils is advisable, and careful experiments on permanent plats both on high and low ground and on a scale large enough to afford an answer to the question are recommended. Some work in subsoiling has been commenced in southern Illinois.

For central Illinois for many years the greatest practical question will be that of depth, frequency, and nature of cultivation, and it is proposed to begin carefully planned experiments along this line on some of the permanent plats. Such work is not so simple of execution as might seem, and valuable results can be had by painstaking care only.

The corn experiments are well started and should be continued. A mass of data is already at hand, but time only will enable the workers to sort it and discover principles. Barrenness is becoming a prominent feature of this study, as well as acclimation and permanence of variety.

Experience would seem to make it advisable to do more with teosinte the coming season, and to endeavor to learn if it is worthy to come into the list of crops for Illinois.

The general interest aroused in the culture of the sugar beet would seem to make it advisable to expend a portion of the energies of the Station along the line of its cultivation. There was a time when public opinion almost compelled the Station to work in channels in which the popular mind happened to be running. It is less necessary to do this than formerly and still it seems

wise to reflect to some extent the public pulse, though it is too fickle to serve as a basis on which to ground policies. Two years ago it was crimson clover and irrigation, and every bad season or time of depression may be relied upon to develop some new phase of agricultural industry. But the importance of the sugar beet question and the demands made by many of our people upon the Station for information on the subject lead me to say that it would be desirable to give the matter early attention.

The only obstacle to the prosecution of this work is the lack of funds, and I do not see how they can be provided without discontinuing some of the established work of the Station. However, something can be done within the limits of our funds, and it seems advisable to do what we can.

Botany.—In accordance with the recommendations of Dr. Burrill, it seems that the botanical work of the Station may for the coming year be chiefly directed along the following lines:

1. Fungous diseases of plants.
2. Bacterial diseases of plants.
3. Special histology and physiology of corn.
4. Fertilization of plants through pollen.
5. Weeds. (This is to include determination, germination, etc., of weed seeds).

There is always an accumulation of information outside of the definite lines of study as planned and some of this extra knowledge may from time to time be gathered up and put into available form for use otherwise. Some groups of fungi can soon be worked up in this way with comparatively little extra labor, and freedom in this particular is desired.

Horticulture.—The experiments in charge of this department were carefully gone over at a recent meeting and no further changes are recommended at this time aside from the policy of extending the plantings of varieties of small fruits likely to be successful, and that of even more careful investigations into the results of spraying.

Chemistry.—The exhaustive chemical examination of Indian corn and its digestibility, together with chemical work done for other departments, and the analysis of fertilizers for the State Board of Agriculture, will occupy fully the time of this department. The value of analytical work depends solely on its absolute accuracy. Offenses against this virtue have been all too common and we are fortunate in being able to publish work of this kind with limits of error far within the official standard. The loss of the laboratory by fire and the destruction of most of the apparatus has greatly hampered the work of the chemist. So far as the apparatus has been restored the quality is of the best. Mr. Hopkins asks to be allowed to order apparatus to the amount of \$450.00. Because most of these goods are imported, such orders must be in advance of appropriations. All this apparatus and more is needed, but I do not see how funds will warrant the placing of orders for more than \$300.00 within the next six months, and recommend that the purchase of chemical apparatus to that amount, mainly importations, be allowed, but that bills for no part of the same be incurred for the present quarter.

Southern Illinois.—I recommend the continuance unchanged of the plans in operation at Edgewood during the last year. The feasibility of drainage of these clay lands was demonstrated here last fall and its effect was shown by an increase of over twenty per cent in yield of corn. Whether this will continue must be determined.

The Odin sub-station was established primarily to test sub-irrigation on those lands. The nature of last season rendered this sort of work impractical and it may be a number of years before conditions will be right for such a test.

At Odin we have command of a good sized piece of land, and I recommend for the coming year the trial on a comparatively large scale of a few of the more important questions connected with that of successful agricultural practice there, viz., culture of cow peas, both as a crop and for green manure;

use of rye as a winter protection to land and as green manure; subsoiling both spring and fall; and trials of different methods of seeding to grass, and attempts to tame and cultivate some of the wild prairie grasses.

Estimates of expenses for the ensuing quarter on the basis of recommendations herein made are:—

ESTIMATES FOR QUARTER ENDING JUNE 30, 1897.

<i>General Fund.</i>		
Salaries.....	\$1,940 00	
Labor.....	570 00	
Publications.....	315 00	
Postage and stationery.....	20 00	
Freight and express.....	25 00	
Heat, light, and water.....	60 00	
Chemical supplies.....	30 00	
Tools, implements, and machinery.....	150 00	
Seeds, plants, and sundry supplies.....	125 00	
Feeding stuffs.....	170 00	
Library.....	35 00	
Live stock.....	160 00	
Scientific apparatus.....	75 00	
Traveling expenses.....	60 00	
Contingent.....	15 00	\$3,750 00
<i>Farm Fund.</i>		
Labor.....	\$700 00	
Seeds, plants, and sundry supplies.....	200 00	\$900 00
		4,650 00

Respectfully submitted,

E. DAVENPORT,

Director.

Mr. Bullard, from the Committee on Buildings and Grounds, returned the report of the Superintendent of Buildings and Grounds with the recommendation that it be filed, and the recommendation was concurred in.

On motion of Mr. Bullard, the President and Business Manager were authorized to employ a day policeman at not to exceed \$40.00 a month, and an appropriation was made to meet the salary.

Mr. W. L. Pillsbury, as Secretary, filed the reports concerning the endowment securities maturing during the six months ending December 31, 1897, and the interest thereon for the quarter ending December 31, 1896; and as Registrar, statements of fees due from University students, Preparatory School students, and students of the School of Pharmacy for the quarter ending December 31, 1897.

The Finance Committee filed the following report:

UNIVERSITY OF ILLINOIS, March 10, 1897.

To the Board of Trustees of the University of Illinois.

GENTLEMEN:—Your Finance Committee reports that it has examined University vouchers 1,426 to 2,350, inclusive, series 1895–1896. Also vouchers of series 1896–1897:—

General, 1 to 1,200.

Vouchers Laboratory of Natural History, 1 to 161.

Vouchers Agricultural Experiment Station, 1 to 200.

Vouchers School of Pharmacy, 1 to 102.

We find them in due form and properly receipted, with the exception of No. 2,269 for \$50.00. The warrant for this voucher was not used. We recommend that this warrant be cancelled.

The report of Charles W. Spalding, Treasurer, for the quarter ending December 31, 1896, has been examined and found correct.

Balance September 30, 1896.....	\$285,713 49
Receipts for the quarter.....	28,244 08
	<hr/>
	\$313,957 57
	<hr/>
Warrants paid.....	108,988 73
Balance.....	204,968 84
	<hr/>
	\$313,957 57

Of this balance, \$37,184.58 belongs to the endowment fund.

Respectfully submitted,

THOMAS J. SMITH,
ALEX. McLEAN,
N. B. MORRISON,

Committee.

On motion of Mr. Armstrong the Board adjourned to meet at the Palmer House, Chicago, at 10 o'clock a. m., Thursday, April 22, 1897, in order to attend the thirty-seventh commencement of the School of Pharmacy.

W. L. PILLSBURY,

Secretary.

F. M. MCKAY,

President.