

AN ADDRESS

ON

THE UNIVERSITY OF ILLINOIS

BY

PRESIDENT ANDREW S. DRAPER, LL.D.

BEFORE

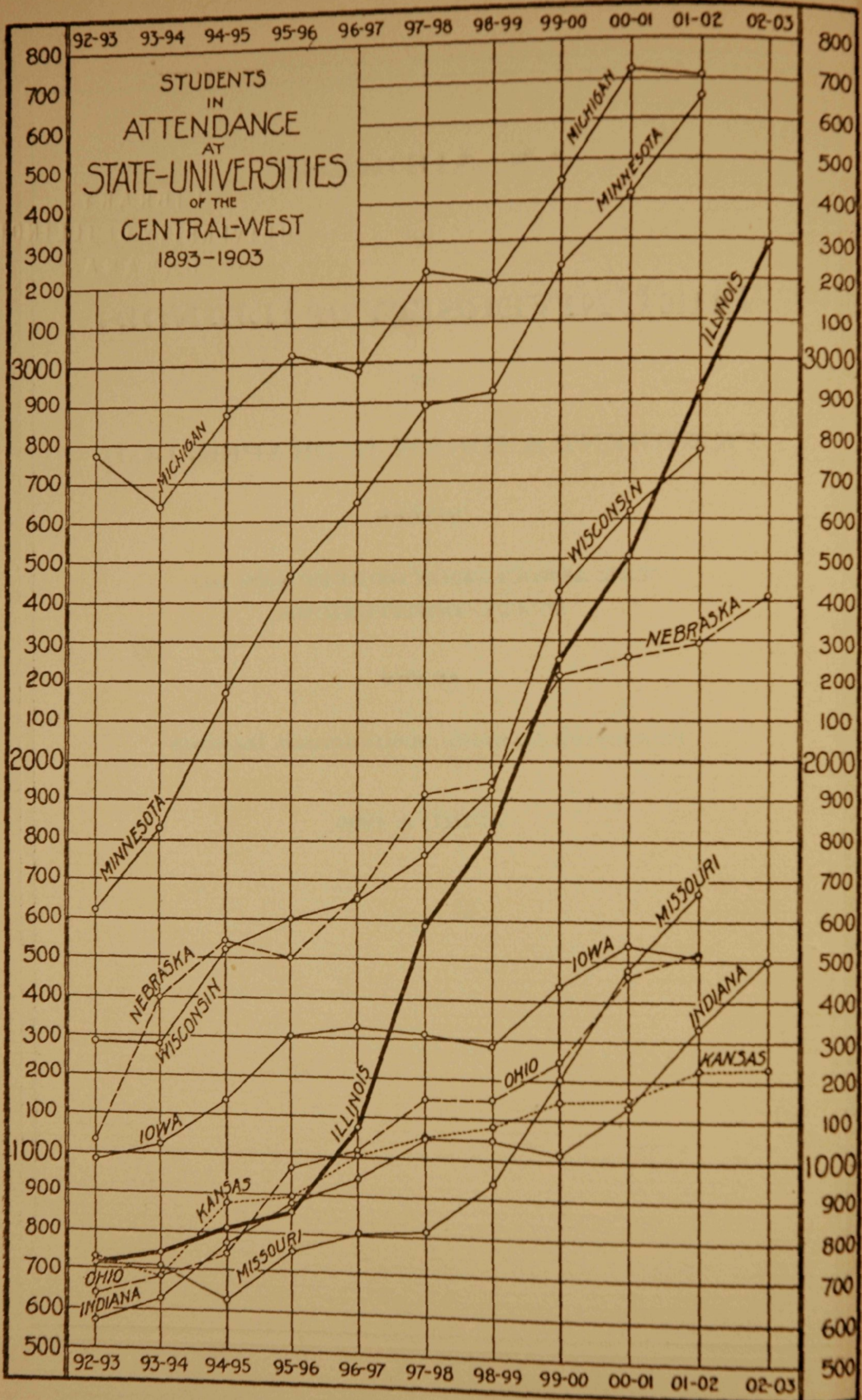
THE ASSOCIATION OF OFFICERS OF
STATE INSTITUTIONS

AT THE

EXECUTIVE MANSION, SPRINGFIELD, ILLINOIS

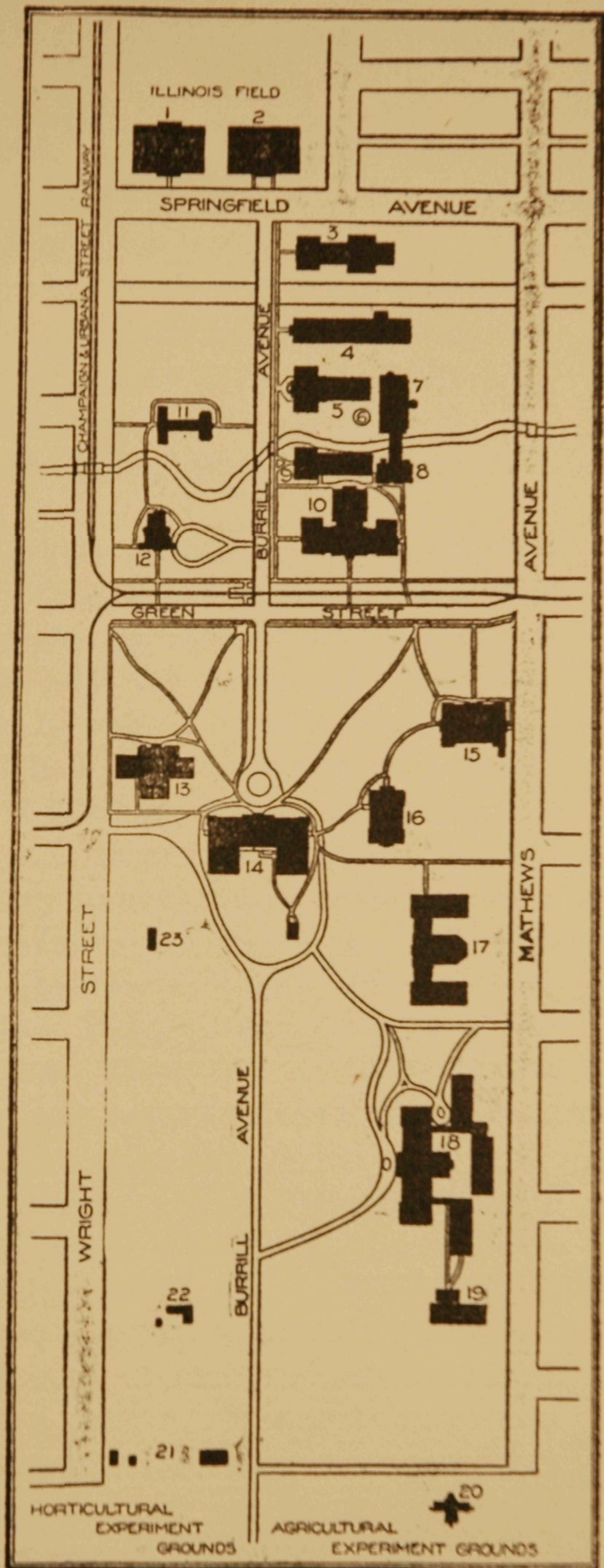
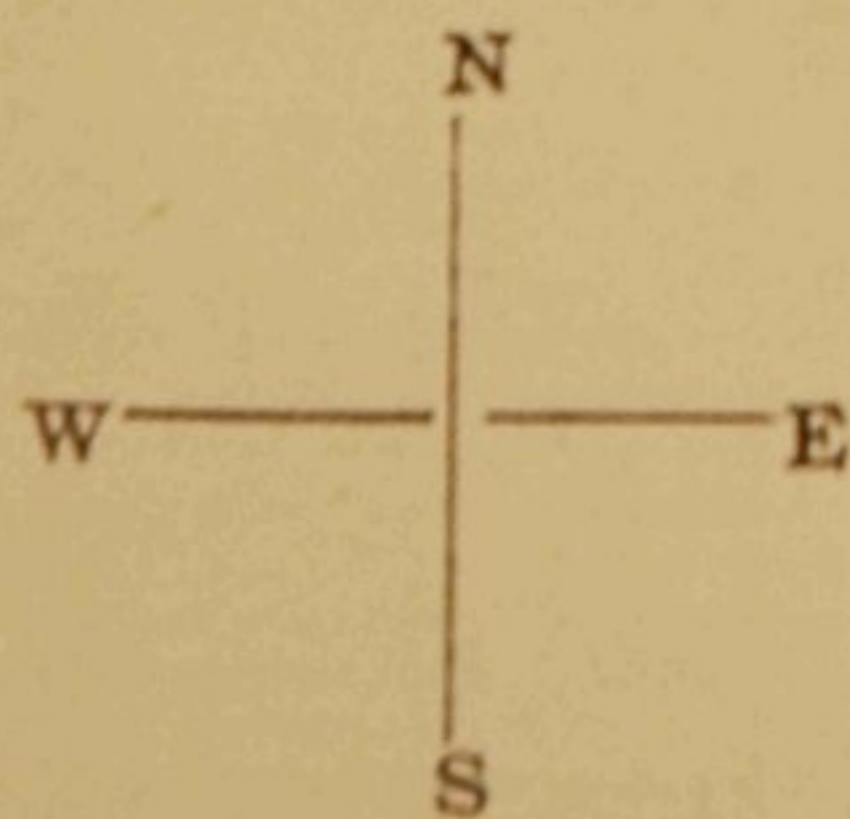
APRIL 8, 1903

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20. Obser
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22. Veter
23. Insec

1. Men's Gymnasium
2. Armory
3. Wood Shops
4. Metal Shops
5. Electrical Laboratory
6. Reservoir
7. Heating Plant
8. Pumping Plant
9. Testing Laboratory
10. Engineering Building
11. Greenhouse
12. President's House
13. Library Building
14. University Hall
15. Natural History Building
16. Law Building
17. Chemical Laboratory
18. Agricultural Group
19. Agricultural Greenhouse
20. Observatory
21. Warehouse
22. Veterinary Building
23. Insectary.



PLAN OF CAMPUS.

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THE UNIVERSITY OF ILLINOIS.

The people of Illinois established the University upon which they bestowed the name of their State. They did not merely empower a corporation to set up a University; they set up one for themselves; they did it to promote purposes of their own; they did it through their General Assembly, which upon matters educational exercises sovereign power.

They were moved to do this at the time they did because of the National Land-Grant Act of 1862. This Act had been an issue between the aggressiveness of the west and the conservatism of the east for years. It had been once passed by Congress to be vetoed by an eastern President. Their own Lincoln had favored it; it was fitting that his hand should give it life. It was an epoch making statute in world education. It grew out of the natural trend of a democratic society unparalleled in the freedom of its thought and the forcefulness of its doing. The men and women of the Upper Mississippi Valley of forty years ago had descended from New England and New York and Pennsylvania stock, and well knew the influence of the advanced schools, but they had been limbered up by western life, and dared to believe that the operations of the colleges ought to guide the thinking of freemen towards the great ends for which democracies are set up, and that the schools should have something to do with the hand-work as well as with the sophistry and the religion of a people.

There was no educational anarchism, only freedom, about this. They tore down nothing, but they would not *force* all who wanted the advantages of the higher schools to learn languages which were dead for the mere sake of culture, and they would not assume that the power to think

and the right to feel stopped with the theological masters of an age when modern society had not got upon its feet. Other people might teach what they liked; they would even provide the old education for their own, for they knew its worth; but they were bound to break out new roads and they understood perfectly well that they were forcing new and important policies in education. They were not very clear about how it was to be done, but in some way they would have advanced schools of their own, answerable to no man and dependent upon no man, which should recognize new industrial conditions and train their young to the developing ideals of their new-found democratic life. Their social structure was in no sense unbalanced; it was more evenly balanced than any which had gone before it, for it recognized the rights of all men; and it deliberately intended to bear down standards of thought, to set aside false valuations of human accomplishments, and to supercede dogmatic methods of teaching which had grown out of one form or another of human bondage, and had sprung from conditions which had passed, or were fast passing away.

Illinois should have moved before she did. There were reasons for delay not necessary to discuss now. Her course was accelerated by the time limitation in the Congressional statute. But she would have moved very soon in any event. All the other states associated with her in the old North-West Territory, all the others approaching her standing in the upper water-shed of the Mississippi, had founded state universities upon the classical lines before she did much of anything. She did as they had done, and also incorporated into her plan the new purposes of her democratic people, and the machinery of the Federal Act. Possibly it was to her advantage that she waited, for she had the benefit of the experiences of others, and she did not meet the danger of scattering her energies and of duplicating her institutions. The movement in this State was of course inevitable, and the time and the plan of it were fortunate.

THE GROWTH OF THE UNIVERSITY

The growth and the strength of it have surprised all who are not versed in the history of intellectual awakenings. As the claim for one new department after another has been met, students have gathered in greater and yet greater numbers: the claim for larger libraries and later appliances with which to help on the search for the more hidden truth has become more and more insistent: and the demand for additional departments which will promote every moral, culturing, philosophical, scientific, commercial and industrial interest in the State has become more and more imperative. And as the Legislature has responded to the people with a wise and generous hand the University has gone forward to splendid proportions and looks out upon the future with confidence in possibilities which are boundless.

It occupies more than 20 substantial buildings: its faculties number more than 300 persons from all the leading universities of the world: the registration of students ten years ago was 755, the registration this year is 3288; they come from every county in Illinois, and from forty other states and eleven foreign countries. In size Illinois has come to be the eighth University in the United States.

THE MAKING OF MEN AND WOMEN

It is no respecter of persons. It is for no class of the people; it does not believe in classifying the people. Its high mission is to bind men together in a democracy of learning, and to extend the noblest fraternity in all the wide world. It wants the favor and the patronage of the thrifty, but no one who is earnest, and has the preparation which the high schools can give, will ever find its doors slammed in his face because he is poor. It stands on the plane of the common brotherhood, and its doings are beyond the control of bigotry or of partisanship, of corporate power, of social cast, or of wealth. It holds that woman has the inherent right to the same educational liberty and the same intellectual opportunity as man. Its face is to

the sunlight. It is not backing its way into the future with sorrowing eyes upon idols in the remote and shadowy past. It cherishes culture, but it knows that any culture worth having must come through work. It encourages philosophy, but a philosophy which keeps its feet upon the earth, which sees through the eye of courage and uplifts the common life. It stands not only for teaching, but for research; not wandering, pointless pottering, but the hard study of hidden truth which may enlarge one's knowledge of himself and of all nature, which may make life happier and society more secure, which may quicken commerce and carry new fascination into the agricultural and mechanical industries. It nourishes the life of the spirit, but it neither submits nor objects to any creed; it is not for free thinking which has no havens or anchorages; it is for freedom in a faith based upon scientific facts and logical thinking, and it encourages worship in any form. It stands for all men and for equality of opportunity; its sympathies are as high as heaven, and as broad as the boundless universe of matter and of life; it understands that it is the instrument of democratic society to strength, on its own foundations by making men and women sane and true and tolerant and useful in the home and in the State, and it understands also that it is not its business to override or discourage, but to help on every other instrumentality, public or private, which makes for the same great ends.

THE UNIVERSITY BUILDINGS AND GROUNDS

Now let us go through the buildings of this University and see just what is being done. The journey is a long one and you must be patient. We are to look into rooms where more than six hundred different courses of work are being carried on. If one man was to undertake to do all this work, and should be a good enough student to pass out of each course without "flunking" it would take him seventy years to do it. It needs much time just to look into the rooms where this work is done, and the journey cannot be made as interesting by word as by sight. Yet

if you will help me I think I can convey to you a general knowledge of University affairs which you will be glad to have. We will take the buildings, generally speaking, in the order of their erection, and you will in that way get something of an idea of the growth through which the University has passed.

THE OLD BUILDING.

The first is the "Old Building," or University Hall. It was erected in 1872 by a people who probably thought that it would meet all the needs of the "University" for all time. It is not very attractive, architecturally, but it is very roomy, and exceedingly useful. One department after another has grown large and gone out of this building until it has come to be the spacious home of the College of Literature and Arts. Here are the departments of ancient and modern languages and their literatures, rhetoric and oratory. Associated with these are the departments of history, philosophy, the science of government, economics, education, including psychology and the scientific study of the public school system. Here one may secure an all-around liberal education and may specialize in any one subject to his heart's content. Closely associated with the department of economics is the work preparatory to a business career,—finance and accounts, banking, insurance, manufacturing, transportation, trade, business administration, etc., which was specially provided by the last legislature. In this building, also, in close connection with the College of Literature, is the School of Art and Design, and the School of Music. The School of Art offers many courses in drawing, painting, modeling and design, and the School of Music provides liberal facilities in musical theory and history, as well as for the study of an instrument or the cultivation of the voice. There are half a dozen excellent musical organizations, and recitals and concerts are frequent. For three years we have had the support of the Boston Symphony Orchestra at our annual Musical Festival in May. In this building we

could spend a pleasant hour in the Zoölogical Museum which is the work of students of earlier days and, while as creditable as it was fascinating to them, illustrates very well how marked the advance in the methods of teaching the biological sciences has been. On the other side of the hall we stop a moment at the door of the old Chapel which has grown so small as to largely go out of use. It will seat 700, while we need accommodations for 3,000.

THE LAW BUILDING.

The only other building on the campus which is fifteen years old was built in 1877 for a Chemical laboratory, and remodeled in 1902 for the College of Law. This College believes in studying the science of law just as one studies any other science, and exacts the entire time of students and teachers. The college is young, being opened in 1897. The building has been well made over, and its pleasant offices, ample class rooms, well lighted library, and traditional court room make a fine home for a College which promises to be very potential in the affairs of the University and the State.

THE ARMORY.

The next structure erected is the Armory at the north end of Burrill avenue. Burrill avenue, by the way, runs north and south nearly through the three hundred acres in the campus, has a stately row of beautiful elm trees on either side and takes its name from that of the professor who has been setting out trees on the University grounds from the very beginning. It is said 15,000 trees have been so placed. The drill floor at the Armory is 100x150 feet, and the roof, designed by our professor of architecture, is said to be the largest trussed roof in the State. Here military drill is required of all freshmen and sophomore male students twice each week through the year. The military organization consists of a Band of forty men, a battery of artillery of about eighty men, with two six pounder field guns, and a regiment of infantry of six hundred men, equipped with the regulation cadet musket.

The uniform is gray, officers blue. The field and line officers are chosen from the Graduate School and the two upper classes, and the non-commissioned officers from the two lower classes. The organization is complete, and the discipline exact. It is the claim of the University that its military organization is in appearance, discipline, and morale not equaled in the State. It has attracted first attention in the last two inaugural parades at Springfield. The department is in charge of an officer of the Regular Army detailed by the War Department, the present detail being a gallant veteran of the Civil War and of many Indian campaigns who has been in the service more than forty years.

NATURAL HISTORY BUILDING.

The building with steep gables, built of red pressed brick and Bedford stone, is that of the College of Science and is called, with doubtful advisability, the Natural History Building. Here are the departments of botany, zoölogy, entomology, geology, physiology, and experimental psychology. Here, too, are the quarters of the State Entomologist, and the State Laboratory of Natural History. One interested in scientific research will gravitate towards this building. If cats and dogs are indisposed to contribute themselves to science they will go a long way around it. In one of these rooms there are enough microbes bottled up in test tubes to set the whole State aflame with malignant diseases, and in another there are the appliances to show that the heart of the embryonic chicken in the egg begins to beat in less than two days after the hen begins to set. Every scientific process is followed in these departments with the patience and enthusiasm which prove how very difficult and how very eager is the quest for new scientific truth. When it is found all the world knows it.

THE ENGINEERING BUILDING.

This fine building of buff brick and stone, over the way, has no superior in the country for engineering educa-

tion. In it is carried on the class work of the great departments of civil engineering, mechanical engineering, including railway engineering, electrical engineering, and municipal and sanitary engineering. The department of architecture and architectural engineering occupies the top floor. It has been in charge of Professor Ricker for nearly thirty years, and his scholarly industry has resulted in a collection of architectural plates and models of unequalled value. The department of physics is here also, but it sorely needs a building of its own, and the engineering departments need the room it occupies. The department of photography has its quarters here as well. The engineering shops and laboratories are housed in a row of six new brick structures north of the Engineering Building. We will walk through them, just glancing here and there, lest you tire out and leave us before we are half way through.

TESTING LABORATORY.

The first is the Laboratory of Applied Mechanics, or Testing Laboratory. Here all manner of building materials, iron, stone, brick, cement, are tested for strength and durability. This is the Hydraulic Laboratory, and this next one is the Water Station. The University pumps all the water it uses from deep wells, and requires something like 140,000 gallons each day.

HEAT, LIGHT AND POWER.

We will go out of this back door and into the back door of the boiler room of the heat, light and power plant. Here we have 1,100 horse power in boilers, which furnish heat and light and power to all University buildings. All pipes and wires are carried through mason-work, underground tunnels which are six feet, six inches in the upright diameter, and have already attained a length of 3,000 feet, more than half a mile. The whole system was laid out and constructed by Professor Breckenridge.

STEAM LABORATORY.

This highly attractive building in front shelters the electrical and steam laboratories. The architectural work

for this group was done by two of our professors, Messrs. Temple and McLean. The steam laboratory is full of steam engines of every character and design. Here is one of our own make, and is especially interesting, for it is the first steam engine ever made in an educational institution. Several of these were made by students in regular work. Here is an air compressor, and Professor Breckenridge has led a pipe to the open air at several points so the boys can hitch on their bicycles and have the tire blown up without the hard labor which he would have them keep for other things. These engines and dynamos within the immaculate brass rail supply the lights on the campus and in all the buildings.

ELECTRICAL LABORATORY.

Out here, in the front, upstairs and down, are the electrical laboratories, and one who is up in such things may study dynamos, and motors, and converters, and transformers, and storage batteries, and switch-boards to his heart's content. Some years ago before our equipment approached its present stage a bright, recent graduate of one of the two or three foremost eastern technical schools came to me with a letter from the Governor of the State asking me to afford him the facilities for doing an intricate piece of electrical work. I helped him, but felt the necessity of apologizing for our equipment as compared with what he had been accustomed to. In a week he had his work done and came in to thank me. As I again expressed fear that we might not have such equipment as he had worked with he said, "Oh, you have no apologies to make; you have enough sight better equipment than they have."

METAL SHOPS.

This long building over here contains the metal shops. This is the smith shop. This is the foundry; if we could happen in here on a Friday morning we should see the boys "pour off." This is the machine shop, where we shall find some as beautiful pieces of mechanism as you

ever saw. Here among others is a costly gear-cutting machine recently given us as a memorial to Edward L. Adams, a bright young graduate, whose lamentable death resulted from fidelity to his employers and zeal for his profession. This great fly wheel was cast out in the foundry; it is the largest ever attempted by students, and is part of a steam engine which the boys are getting ready for the Louisiana Purchase Exposition at St. Louis next year. This engine, with their Illinois Central dynamometer car, will be likely to draw its full share of attention to our department of mechanical engineering.

WOOD SHOPS.

This is the Wood Shop. It is new and a model for others to profit by. The neatness and order of the place attract one, and many a young man finds lifelong pleasure and profit in the work which he is here required to do.

You understand that in these shops we are not merely training young men to be blacksmiths and carpenters, as desirable as such training is. Where that is done they must spend a much longer time in the shop than is practicable here. We are training them for engineers. We are teaching them respect for the mechanic, and seeing that they know something of the difficulties in his way. We are putting into them some knowledge of the fundamental processes which are at the foundation of successful engineering. And there is a plan about it all. They study theories, and then they carry them out. They go into the designing and drafting room; and then they make the patterns; and then they mould and cast the parts in iron; and then they finish and burnish them; then they mount them and make up the finished machine; finally they turn on the power and see whether their theories have been correct and their work exact. No one boy does all this, but all have a part in it. The work is not pointless. There is interest from beginning to end, and great satisfaction in the climax. While their hands have been growing deft, their heads have been growing clear and strong, and their hearts have been growing tolerant and kindly.

LIBRARY BUILDING.

We shall now go into the finest building on the grounds, the Library Building. The appropriation for it was saved by an all night ride. It was built in 1897 of Minnesota sandstone, and is wholly fire proof. Its noble tower and red tiled roofs produce a superior architectural effect. This tower is waiting for a chime of bells which some generous hand will sometime give us. An American artist, (Mr. Newton A. Wells), studying in Paris, came all the way to place the mural paintings in the lunettes of the delivery room and oversee the decorations. He has since become a member of our art and architectural faculties. We were bound to have a little good art work to stimulate the good taste of generations of students, and we succeeded. The paintings represent Literature, Agriculture, Science and Engineering, the four colleges of the University at the time they were executed. The scheme of decoration is purely Byzantine, and it is said that this is the only building in the country of which this is true. The delivery room is copied from the throne room in the palace of King Ludwig in Bavaria. The reading rooms are spacious, and amply lighted from both sides. Silence is exacted here, and a conversation room is provided as a city of refuge for the oppressed. The stack rooms have capacity for 150,000 volumes. The administration offices are upstairs, but will some day claim a building of their own. We are accustomed to say that this beautiful Library building is the best example of the finished work of the University, for its existence is due to graduates of the University. Senator Henry M. Dunlap, of the class of 1875, was the main spoke in the wheel that turned out the appropriation, as he has been in many other similar wheels. Professors Ricker and White, of the department of architecture, both graduates of the University, were the architects and Warren R. Roberts, of the class of 1888, was the president of the construction company which erected the building.

The art collections in the basement are not so well provided for as they deserve. These plaster casts of the

masterpieces in sculpture, and this rich collection of old steel engravings, unsurpassed in the number of historic portraits, were procured by the first President of the University through the generosity of friends in the early days of the institution. President Gregory went to Europe to make his selections, and gave liberally of his own money as well as of his cultivated artistic sense to give these collections to the institution into which he was putting his own life. They must in time be installed in an environment of greater dignity and effectiveness, in a building which will stand for the art interests of the State.

LIBRARY SCHOOL.

We must not leave this building without mentioning the State Library School, which has rooms here, which is preparing librarians for public service. It has a two years' course, and requires three years of college work in preparation for it. Many of its students are graduates of this and other universities. The course is severe and we have more students than we know how to take care of. The school has but one or two substantial rivals in the country. It is doing a very great work for the public, and incidentally it has rendered a marked service to the Library interests and has exerted a very uplifting influence upon the womanly interests of this University. The school, with the Library, requires the exclusive use of this building, and it is to be hoped that the erection of a separate administration building will in time give the building over to it.

SOUTH CAMPUS.

We must now go out to the south campus. As students have multiplied in recent years they flock out to these beautiful lawns, and the artificial forest, in the afternoons, at this time of the year for recreation. All the open air sports flourish. Even the "Varsity teams" practice here for a time in order to gratify the ambition of the gardeners and give the lawns on "Illinois Field" a better chance for life.

CHRISTIAN ASSOCIATIONS.

That building on the corner over there, just over the border of the campus, is the property of the University Young Men's and Young Women's Christian Associations. It is a fine property, and they own another fine piece of real estate on the other side of the grounds. The Associations have seven or eight hundred student members, and are the most efficient organizations of their kind in the West. They assist new students in finding homes and getting started, and are at all times forceful in promoting religious activity in the University community.

ASTRONOMICAL OBSERVATORY.

That building, with the dome, on the high ground, is the Astronomical Observatory. The appropriation for that came out of a "Legislative mix-up," and few knew what had happened until the smoke of battle had cleared away. The building is equipped with a fine twelve-inch equatorial telescope and accessories, and is capable of excellent work in the way of research as well as of instruction. It is not of much use to go in there until night has come.

VACCINE LABORATORY.

The little building among the trees is the Vaccine Laboratory, where the professor of Veterinary Science operates for vaccine virus, which is supplied to the State institutions and the medical profession.

AGRICULTURAL BUILDINGS.

Now we have come to the buildings of the College of Agriculture. There are five in the group, erected in 1899-1900. If you walk around the outside of these buildings you will have traveled a quarter of a mile. The inside space is enormous. We believe we are solving here the difficult problem of scientific agricultural education. The work can only be indicated in the briefest manner. Here they are beginning to make a general survey of the different soils of the State. They are analyzing soils chemically in order to see what crops may be raised to best advantage, and what sort of treatment the soil should have. They

treat of drainage and irrigation and fertilizers and the rotation of crops and of farm machinery, etc. They study trees, particularly fruit bearing trees, and pay no little attention to ornamental trees, and to landscape gardening and architecture. Vegetables and flowers find places in their courses. The department of animal husbandry is teaching the propagation, care, treatment and use of domestic animals. The department of dairy husbandry is teaching, by theory and demonstration, the preparation of all classes of dairy products. If you will look out of that south window you will see the barns with good specimens of Morgan horses, a great family which the University is striving to recover, and you may see hundreds of dairy and beef cattle, including the Shorthorn, Jersey, Ayreshire, Guernsey and Holstein families, as choice as any in the country. Specimens are led into the stock judging room down stairs where they may be studied deliberately and with comfort.

EXPERIMENTATION.

Out of this window, too, we may see parts of the South Farm of four hundred acres of garden lands which the University owns and gives over to the great work of agricultural experimentation. The United States Agricultural Experiment Station is housed here. In the last two years Illinois has put a hundred thousand dollars into the work of this station. And with her agricultural interests well she may. It has been proved here that you can change the chemical constituents of corn by selection. Who can estimate the value of that to a State with a corn crop of 320,000,000 bushels, the largest by far in the country?

HOUSEHOLD SCIENCE.

Here is the department of household science. It is not a cooking school, but a place where the house,—its design and decoration and equipment and safety and healthfulness and conveniences, the food,—its production, analysis, adaptation; preparation, where everything related to home making and family life is scientifically studied. This is the only University in the country, so

far as I know, where this all important subject is given recognized position in college work, and where work in it may count towards a degree.

We cannot tarry longer in these buildings, but before we go it ought to be said that a very large share of the credit for this great agricultural development is due to Dean Eugene Davenport, and that it now looks as though the advance of the next two years will equal, if not surpass, that of the last two.

CHEMICAL LABORATORY.

This fine, large building, hardly finished, is the Chemical Laboratory. It is in the form of the letter **E**, and is 230 feet along the front, and 116 feet along the wings. The details of this structure came from the very full experience of this University and from chemical laboratories in all parts of the world. In ample provision for work in both pure and economic chemistry, as well as in range and efficiency of work, we need not fear comparison with any. It is said that we have graduated more students in advanced chemistry than any other institution in the country save one. I am not competent to tell you about the details of this work. Here are lecture rooms and laboratories, class rooms and seminary rooms and research rooms and balance rooms and supply rooms, and stills and retorts and bottles and odors, without limit. I suppose the apparatus needs strengthening; it always does. If that should cease to be true we would all be ripe for translation. In that room there they have been carrying on a lot of nutrition experiments in cooperation with the United States Government. I heard them say the other day that they had proved that there was just as much nutriment in the cheap cuts of meat as in the more costly; that the only difference is in toothsome-ness and price. There is consolation for some of us in that. In this room here they have, in the last six or eight years, analyzed fifteen thousand specimens of drinking water in order to determine whether they contain the germs of disease. These have come from

the people in all parts of the State and no charge has been made for it.

GYMNASIUM.

We must now go to the north side of the grounds to see the new Men's Gymnasium. On the way you will notice the President's house, erected in 1896, where I am sure you will be very welcome, and we will just walk through the green houses. Here plants and flowers are propagated for use about the grounds and buildings and in study.

This gymnasium is, like the armory adjacent, 100x150 feet on the ground. On its first floor are the offices of the Director, the examination room, dressing rooms for the 'Varsity and visiting teams, the Faculty dressing room, and the locker room, with provision for twelve hundred metal lockers, and a swimming pool 26x75 feet, and 8 feet deep.

All freshman students undergo physical examination, and prescribed physical exercise is required through the first year. Every care is taken to correct physical defects, or unfortunate tendencies, and to train the body so it may carry the severe work of the University. We strive to develop well rounded men and women with powers harmoniously developed, and we believe in work and sport rationally balanced.

Here is the trophy room for the care of footballs and baseballs and bats and all manner of appliances used in intercollegiate contests which have now and again stirred the University crowd to the very depths. That beautiful sterling silver loving cup was presented by the business men of Champaign to the 'Varsity baseball team when they came home from the east last year after winning five games out of six they played. They lost to Harvard by a score of two runs to one on a bit of hard luck, and by reason of a split finger, but they had the Princeton, Yale, West Point, Pennsylvania, and Michigan scalps,—rather aristocratic ones surely, at their belt when they came back to the tall timber. And all the members of the team

were matriculated students without conditions in their studies, the average standing of all the men being above 89. Practically all of them graduated last year, or will this. Yet when I was on my vacation in the east last summer the college boys would timidly lead up to the baseball question, and with a little encouragement they would brace up and ask whether "the men in that baseball team were truly students of the University?" What could possibly lead them to think of such a thing?

The gymnasium floor upstairs is the full size of the building, and the running track suspended above it covers a mile in thirteen laps. From these north windows we get a fine view of "Illinois Field." It covers about 12 acres. The elliptical cinder track covers one-third of a mile, and the straight-away is one-eighth of a mile. It makes an excellent place for the "diamond" and the "gridiron" and for military reviews. Here many a contest develops genuine skill and heroism and makes Illinois blood tingle to the very tips of the fingers.

COLLEGE OF MEDICINE, ETC.

We have now finished our tour of buildings and grounds, so far as they are associated with the seat of the University, but I must say a word of the important departments in Chicago. In 1896 the Old Chicago College of Pharmacy, founded in 1859, and occupying the building at 465 State street, was absorbed by the University. In 1897 the College of Physicians and Surgeons became the College of Medicine of the University, and in 1901 a School of Dentistry was organized in connection with that College. The Schools of Medicine and Dentistry occupy most commodious buildings opposite the Cook County Hospital, and are of first prominence in the city. Our departments in Chicago are wholly self-supporting, and have more than a thousand students.

YOUNG MEN AND WOMEN

We have now seen the University plant, but grounds and mason work are not the objects of first interest here.

Young men and women have the first place in human interest, and the work which our students are doing has a fascination beyond everything else we can show you.

As you have seen, the work extends into every field of intellectual and industrial activity, with the single exception of theology. We believe in general culture, and work for it unremittingly. We believe that the high and ultimate standing of this people is conditioned upon broader and more exact training for their professional life. We know that the wealth of Illinois is in her soil, and that her strength lies in its intelligent development. Above all else we know that the prosperity and influence of the State and the happiness of her people must turn upon the training, the industry, and the outlook of her young men and women. We are not unmindful of the solemn responsibility of our trust, and we are striving to guide and direct the young men and women of Illinois, in whatever line of work they may choose, so that they may not only become sure-footed and safe citizens with a proper appreciation of the obligations of public service, but also that they may honor industry of every kind, and be filled with the purpose and the power to produce something which will quicken the moral strength and enlarge the honest wealth of all.

We would not only train our students, and teach them what the world already knows, but we would enlarge the sum of the world's knowledge. The State has as yet hardly enabled us to go beyond the teaching. Two years ago, for the first time, it gave the Agricultural Experiment Station a hundred thousand dollars to find new scientific facts. That is a short time in which to get much result from experimentation, but it is wholly within bounds to say that the results already gained are worth much more to the economic wealth of Illinois than all the moneys she has put into the University in the thirty-five years of its history. Why should not the State enable her engineering as well as her agricultural interests to experiment? If she will I am sure the results will be no less gratifying.

STUDENT LIFE

Student life at the University is free, democratic and healthful. We do not want students who are not mature enough to go away from home and be self-respecting and gain strength through independence. We do not want students who have not made the most of the local schools and are not prepared for college work. Our entrance requirements are high,—as high as those of any university in the Middle-West, and they are going still higher. We are not looking for students: we are seeking to be useful, and usefulness requires that students who can do and are anxious to do college work shall not be hindered by those who are not prepared, or who are without fiber and purpose.

As a rule, our students are from comfortable though modest homes, have neither time nor money to waste, and are here with a serious purpose. A few get in by mistake, theirs or ours; no one knows why they came, but they soon find their level through University sentiment and the semester examinations, and ere long they “quituate” under some sort of a guise which will cover a retreat.

The work is severe, requiring good health and full time. The ambition to do it is so strong, the humiliation of failure is so great that there is more occasion to caution against overwork and to look out for health and the eyes than there is to incite to greater effort.

Congenial spirits among the students set up scores of organizations of their own for fraternal, literary, scientific, musical, religious, political or athletic purposes. There are nearly a score of Greek Letter fraternities, most of them living in rented houses. Several have recently purchased sites and will erect houses of their own at an early day. In a very few years all will own their own houses.

Student publications are numerous. The Illini is the daily newspaper. The Illio is the Junior class annual. The Illinois is the admirable representative of the English Club. The Illinois Agriculturist stands for the College of Agriculture, and the Plexus for the College of Medicine, etc.

University students are not all real or simulated saints. They are not all just ready for translation. We do not put a premium on razor faces. But the moral sense of the whole body is certainly as free and reliable, it is surely as healthful and expressive as in smaller institutions, where more is done to regulate conduct and not so much to encourage healthful self activity. There is often moral safety in numbers, because there is more right than wrong in people, anyway, and in an educated crowd the predominance of right is decisive, and it is to be relied upon. We proceed upon the theory that men and women who go to college know what is right and may be expected to do it. We do not make rules to defy breakage, and we do no spying to stir resentment. We do not lecture the crowd because one deserves it. We admonish the one, offer him every help we can, and when he cannot do our work, or if he has developed any habits which unfit him for safe association with others, we send him home. We would send one home for intoxication, for visiting a saloon, for licentiousness, or for gambling, or betting, or for any other moral wrong which would extend if not met decisively. We seek companionship between faculty and students, and between students of every social station and grade of work, and the result is a mutuality of helpfulness which every one, from first to last, in the institution stands in need of if he is to make the most of himself, and if the greatest things are to be accomplished.

It is sometimes said that in the smaller institutions the students come more in contact with good teachers and more under the influence of strong men than in the larger ones. Very likely the smaller institutions have certain advantages in certain ways, and for certain men. We cannot enter upon the task of measuring men in institutions of different dimensions, but it is fair to say that one will look long and hard for a student in a leading university who has lacked sufficient contact with a teacher who is entirely able to teach him, and the influence of an educated throng, and of the infinite variety of work, upon each

individual, will make reasonable amends for any lack of strong men who have been diverted from the larger institutions to the smaller ones.

RELATIONS WITH OTHER INSTITUTIONS

One who disparages any genuine educational instrumentality only discredits himself and deals his own institution a vital blow. In education, the more one gives to another the richer he becomes. Meanness defeats itself. We have many educational instrumentalities in this country. They are all to be encouraged, for they all form part of the public educational system. Private educational enterprise is to be commended. A State has a right to found a university. The very end of a democratic state is education. The people have a right to set up a university of their own which shall stimulate and guide their own thinking and bring the benefits of higher learning to all of their industrial and commercial affairs. But that university has no right to ask any special favors from the common power which may discourage personal enterprise or discredit private undertakings unless imperative to the general good and essential to the general ends for which it is maintained. All are bound to work together in mutual respect and fraternal regard, and so long as all are guided by reasonable intelligence and actuated by sound motives there will be no difficulty about it.

LOOKING FORWARD

The University of Illinois has advanced strongly in recent years. The growth of all the state universities in the Middle-West in the last decade has surprised the country, and has been very significant of the purpose of the people concerning the higher learning; but the advance in Illinois has been more decisive than in any other state. Yet we need not plume ourselves too much upon this. Illinois had given less support to her University than any other state in the Mississippi Valley up to ten years ago; and Illinois has had more at stake and more to give than any other state. There has been room enough

for growth of her University, and a realization of her own indifference touched her pride. Much has been done; the Legislature, from its point of view, has made liberal appropriations, and the Governor has given us warm words of encouragement which have quickened our heart-beats; the officers, faculties, and students of the University have gone forward in harmony and without much commotion; we have increased in numbers, enlarged our offerings, advanced our standards, gone more and more into real University work, until we have come sharply into rivalry or comparison with the other state universities, and in some measure with the oldest and strongest universities in the country.

But what next? Are we to feel that we have gone about far enough? By no means. Is Illinois willing to hold a place second to that of any neighboring state in her provision for the higher training for her youth? Is she content to send her sons and daughters out of the State to get the best there is in American education? It is not to be thought of. The bright star which marks the center of population in America must with the next census be brought within the boundaries of Illinois. That which marks the center of agricultural productivity is already here. We are at the center of the carrying trade: the map of Illinois is blacker with railroad lines than that of any other state in the Union, or that of any other nation on the globe. Are we not to have the center of education here also? Shall we not force the best men and women in the east to come to the center of the country for training rather than permit the annual pilgrimages of eastern college presidents for western students to continue indefinitely upon assumptions which rest upon temerity more than upon fact? Why shall Illinois not aspire to be the recognized center of American education? Illinois is able: her industrial and commercial primacy depends upon it: and the men and women of her future will bless us for it.

Is our outlook a visionary one? I answer with a quo-

tation from a recent letter to THE BOSTON TRANSCRIPT from Hon. S. N. D. North, a Boston statistician and economist of wide experience and keen insight, just appointed Director of the United States Census by the President. The letter was written to protest against the treatment of the Massachusetts Institute of Technology by the State of Massachusetts. Mr. North speaking not to Illinois but to Massachusetts, says :

“ During a recent visit to the University of Illinois, I was profoundly impressed with the generosity with which the people of that State have equipped that great institution of learning. In number of buildings, in size, in architectural beauty, and in the most modern facilities for work, this plant is not inferior to that of any Eastern university. * * * * There have been single sessions of the legislature which have voted to the University more money than Massachusetts has appropriated for all educational purposes combined in fifty years. These grants are not made recklessly ; they are carefully considered and deliberately ordered in the belief that no possible investment of the people’s money will yield so quick and so satisfactory a return. What is true of Illinois is true in no less degree of Michigan, Wisconsin, Minnesota and other Western States. More and more the youth of these States are turning to their own institutions for education. Less and less, as the years pass, will these young men and women attend our Eastern colleges and technical schools ; *and we must have a care lest the time shall come when Eastern boys will find it to their advantage to seek these Western Universities in order to enjoy the highest and most complete facilities in their lines of study.*”

Let these great Central States press on in genuine and honest educational rivalry, with characteristic enthusiasm and with entire confidence. And let Illinois remember that if she is to maintain a University at all she is bound to maintain one which is not only in the first class, but that she is bound to help it to the very head of that class. And let her realize that when it comes to rivalry with the

very best, an advance calls for all the foresight and enthusiasm and moneyed help the State can give. In universities the best is not likely to be cheap, and what is cheap is not likely to be the best. Yet, we need not hesitate. There is no safer endowment than the buoyant enthusiasm, the democratic spirit, and the taxing power of a State with six millions of intelligent and prosperous people, and with potential resources wholly beyond calculation. And the farther we go in training men and women, in enlarging knowledge, and in developing resources, the more stable and fruitful will that endowment be.

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THE UNIVERSITY OF ILLINOIS

COMING STEPS IN ITS EVOLUTION

(Reprinted from the "Illinois Magazine," October 1, 1903.)

VERY, very few universities have enjoyed such a strong and rapid development as the University of Illinois. New, large, and substantial buildings have appeared each year. The faculties and students have increased in numbers so rapidly that we each feel our acquaintance is very limited. We have affiliated outside professional schools until it seems to be the natural order. We have started new lines of work, and expanded the equipment until we have created an organization and secured the facilities for prosecuting almost every phase of research and of advanced instruction.

Very naturally some wonder whether we are not coming to a limit in development; others find amusement in castles in the air which are wholly fanciful.

There is no limit, save in resources, to the evolution of a university, but a university cannot carry on its work in castles which do not rest upon the ground. We stand for the higher educational work of a great, rich, strong State, capable of aiding us in any measure it thinks good. We are commissioned to help on the intellectual advance, not of a class, but of the mass, and we are particularly enjoined to preach the gospel of work, and to help on the great industries upon which the wealth and strength of the State rest. We have prospered because we have followed the terms of our commission, and because we have not quarreled among ourselves, but have had a good fellowship and a correct and courageous spirit while pursuing the State's highest work. We shall continue to prosper and shall grow beyond the confident

expectations of all who know the difficulties of putting up buildings on the ground and of binding all of our activities together into a symmetrical and comprehensive whole, if we just continue to do in the larger field as we have been doing in the smaller one.]

It is hazardous to attempt to name the specific steps which are likely to be taken in the future unfolding of an institution. The writer is no better able to do that than any one else who has substantially his opportunities for knowledge of University affairs. He does not determine what shall be done next, and he is no better at foreseeing than others may be. The directions in which a university shall unfold are determined by the common sentiment and the composite action of a vast number of people, or the thing which is unfolded will not be much of a university. But the writer has some unusual opportunities for discerning the concentration of sentiment, and is not afraid of any dire consequences of misjudging so uncertain a factor in the almost wholly unknown. So premising that as to any matters not yet fully decided he shall not be expected to sustain any intimations here given unless, when discussions are closed, it shall seem best to do so, he ventures to foretell some coming events.

Four important movements bearing upon the future of the University plant are determined upon and will be executed very soon. First, provision has been made for a liberal extension of the equipment of the College of Engineering : the results of this will not be very manifest before next year, for ample time will be taken to guard against mistakes so far as possible ; but before long the results will be very noticeable. Second, provision has been made for a fine extension of the equipment of the College of Agriculture : and in the next two or three years a series of attractive buildings extending east and west along the south side of the south campus will be erected, and they promise to be an important addition to the University group. Third, a Woman's Building will be erected next year, facing the south campus and Wright street, which is bound to add a beautiful structure to the University settlement, and some new features to University life. Fourth, the south campus is to be enlarged and made impressive. The road running east and west in front of the barns has been extended to the limits of our grounds opening into Fourth street in Champaign and into Lincoln avenue in Urbana. The south gate and the road leading to it have been closed in order to prepare the way for carrying out the new plans about agricultural buildings. The road in front of the Observatory has been closed and put into lawn. New roads

in extension of Wright street on the west and Mathews avenue on the east have been or are being opened. All lands in the quadrangle bounded by these several roads and University Hall, and all the lands extending out to the Forestry, are to be cleared of the small buildings, and of fruit trees, and of growing crops, and put into lawn except eight small plats east of the Observatory which the Experiment Station people think imperative to their work for some time yet. In other words, a great expanse of the most beautiful landscape in Illinois is to be put into the campus, improved from time to time, dedicated to the human interests, and given over to the outdoor life of the University. We are exceedingly fortunate in our land holdings, and are going to make the most of the fact. It is doubtful if any other American university has such a beautiful campus, or such an outlook for a still more beautiful and impressive one.

Now as to the possible or probable steps which have not yet been decided upon. A serious and pressing need is an Assembly Hall capable of seating three thousand people. In plan it seems to me that it should be something between an opera house and a church, with something of the comfort of the former, and something of the dignity and stateliness of the latter. It should have a capacious platform: it might well house the School of Music; and it should have the finest pipe organ in the region.

The Library Building will at an early day be required for the exclusive use of the Library and Library School. The time is not remote when the stacks will not only need to be enlarged by taking in the room overhead occupied by the school, which has always been the intention, but when the wing of the building containing the stacks will have to be extended to the south for the accommodation of the larger libraries which we are going to have. Moreover, the administrative offices need better accommodations. These things will lead to an Administration Building.

The department of physics is in the Engineering Building only as a matter of convenience, and because that is the best place we have had for it. It does not belong there, it requires special accommodations, and the engineering work needs the space. This means a new Physics Laboratory and natural accessories.

The College of Science needs a substantial addition to its present building, or a separate structure for housing its collections, and perhaps propagating materials for its work. It is a need which is likely in time to be realized.

It is a somewhat common thought that University Hall, or, as

the writer likes to call it, "the Old Building," has about outlived its usefulness and ought to disappear. It ought never to disappear. It probably will not, unless by fire, and it is to be devoutly hoped that such a calamity will not fall upon us. It is a spacious and a very useful building. It has associations which are of exceeding interest to many generations of students, and which will multiply and deepen indefinitely. Moreover it stands for the beginnings of the University, its early architecture and life. The front at least should be retained for all time substantially as now. I have often thought that a south side might well be erected for the building so as to complete the square. It might not be impracticable to place the needed Assembly Hall in such a new side. The open court in the center might be paved with asphalt or cement, with a fountain at the center, and a "fence" where students could roost and swap stories between times. If in addition to all this we should cut down the front entrance to the ground and build an arcade through the present structure and extend it through the proposed south side so as to make walks and command views clear through, and so connect Burrill avenue north and south, we would add a unique and pleasing feature to our University city without destroying anything we ought to retain. We might even go further and close Burrill avenue as a carriage way, and convert it into a broad walk clear through our splendid campus, and so secure our grounds more completely to University uses, and promote that scholastic atmosphere which the work of higher education requires for virile growth. All this may or may not be among the coming events.

Certainly there is to be a new outfit of grand stand and bleachers on Illinois Field one of these days. Some "Old Grad," or some good friend specially interested in athletics, ought to build them for us, or the Athletic Association ought to start a crusade for the money to do it with. If in connection there could be secured a big "batting cage" for baseball so much the better, because so much the better for the batter.

Almost as certainly there is to be a chime of bells in the tower of the Library Building. We are waiting a rather long time, but some good friend who loves music and can realize the influence of such an acquisition upon our life will yet give the bells to us.

It is unnecessary to think about other structures at this time. Time may help the thinking and make it clearer. But it may be worth while to predict that in all new structures there will be purer and more typical architecture. There is but one building,—

possibly two,—which stands for a type in architecture. This has been no one's fault. We are under obligations to our own department of architecture that we have got on as well as we have. But we have not been free in the matter. We have got our buildings out of hard conditions. Often the main question has been not what the architecture of a new building should be, but rather whether we should have the new building at all or not. Sometimes we have accepted mongrel or meaningless architecture to avoid something positively frightful. We are now in little danger from the old sources, however. There is a certain safety in largeness, when no one man, or no small combination with some selfish end in mind and pretending to know so much that isn't so, can exert control or inflict hurt. In a great University policies have to be settled by discussion in the University forum. Discussion helps the right. The time has come to contend, to fight if need be, for purer, more dignified and attractive University architecture, and accordingly it may be confidently expected.

What may be anticipated in the way of attendance? That is the last thing for us to worry about now. The registration this year is likely to exceed four thousand,—something like 2,500 at the seat of the University, and 1,600 in the professional departments in Chicago. We are not ambitious for a further increase in numbers: we do not care to absorb other professional schools. We have all that can be desired in the way of attendance. All we care for now is the largest possible usefulness. We want to bring the level of this great body of students up to the highest possible plane of intellectual virility, of professional efficiency, of good stalwart, fearless, balanced citizenship. We want to break out some new roads in learning. We want to apply the latest and truest knowledge to the industrial and commercial and political life of the State. The students through whom to do this are upon us. We have not to look for more, but to do the most we can for the ones who are here. But more will come. There is little reason to doubt the attendance of say four thousand students here at the seat of the University within another ten years.

The only reasons for any doubt lie in the possibility that the responsible authorities may not stand up to their work as they should in requiring that students shall be prepared for college work in the local high schools to the fullest capacity of those schools, and in aiding those schools to attain the highest efficiency; in requiring that idlers shall not be in the way of the serious; and in providing instruction of the highest order for the studious. And

possibly in the other fact that increasing numbers may not be able to secure suitable rooms and nourishing food at reasonable cost.

The difficulty about homes is a serious one. Too often rooms are not what they should be, and food is not as nourishing as it might be. And the effort to make the charge excessive is constant. The University has always tried to avoid the responsibility of starting a system of dormitories, but may eventually have to come to it. It has been hoped, and is still hoped, that the surplus capital, of which there is plenty, in the adjacent cities would build suitable apartment houses, near the campus, to meet the needs of the faculty and students; that common sentiment would gradually improve the living, and that rates would have some consideration for the worthy who are struggling against odds to secure a liberal education.

This is, in the main, the uncertain factor in reckoning upon future attendance of students at this University. As it may be eliminated, it doubtless will be. If so, there is little reason to doubt that inside of another ten years the attendance at the University proper will reach four or five thousand, and that, with the professional schools, which are as legitimately and completely a part of the University as any other part, we shall be, so far as numbers are concerned, among the first three or four of American universities. Established, unlike any other, with the departments which thrive best away from a large city located in a rural environment, and with our great medical departments at the heart of one of the greatest cities, indeed at the very largest center of medical education in the world, we might easily come to be, in point of numbers, the largest University in America.

But we readily see that the largest is not necessarily the strongest or the greatest. Of infinitely more importance than anything else is the quality of the instruction, and the spirit of the students. The level of scholarship must be high, and the quest for new truth general and serious, the ideals must be noble, the organization must be comprehensive, the work must apply to the circumstances of a constituency, before a university can be strong or great. In these regards we are likely to see early and very decided advances.

Because we say that we are to advance to the best university ideals it would be thoroughly unjust to infer that the work of the University has been of a low grade. On the contrary, its work has been high, and earnest, and its graduates are standing up well, exerting their full meed of influence, and winning their full share of

success on all fields of world experience. Our entrance requirements have averaged as high as those of any university west of the Alleghenies ; we have just made one decided advance in requirements, and ordered another in the fall of 1905. But in these years of rapid growth, and under our system of accredited schools, some students have come to us without adequate preparation, or any sufficient understanding of what they were coming into. In the College of Agriculture the students have come from the rural districts having no high schools, and it has been necessary to admit a large number of "specials" there, or to withhold the work from the only candidates who want it, and the very ones whom we want to have it.

But we are not afraid of the accredited school relationship. Ninety per cent of the students who come to us under it are very well prepared. The others fail and withdraw : they may get some good : they do us no great harm. Many of the ninety per cent would not go to college at all but for our accredited relationship with their high schools. It will not be necessary to open the doors of the College of Agriculture any wider than we have done. Any way, and generally, it is quite as well for a university to give students their chance. If we "weed them out" in the freshman year, and see that the weak and frivolous do not hinder the capable and serious ones, and if we make sure that all who get our degrees and honors deserve before they get them we shall not permit much harm, and we shall do more good than if we follow a narrow, or a snippy course. But the time is at hand to "weed out" more unhesitatingly and decisively. As the time for it is at hand the change will soon come.

[Again, our many new students have required many new professors and instructors. Under the necessities of the case many of them have been young in years and experience. But they have in general been selected with care. Some have failed, but many are making it finely. Moreover we have been hard pressed for means: our very growth has made us poor: and other institutions with more money have enticed some good ones from us. Now we are in the "trying out" period. Our teachers have, as a rule, had the best training in the foremost schools of the world. As a rule they are growing, showing splendid capacity and spirit. It must be so, or they must give way to others who will, for the life blood of the University is in its teaching. We are in a position now to be even more exacting when we call new members to our faculties. We are gathering the equipment in the libraries (\$20,000 each year for libraries now) and laboratories, which stimulates

teachers and attracts the best men from other institutions. And happily we are in a position to prevent another university from taking a desirable teacher from us by an offer of more money, unless under all the circumstances we think it as well that he should go.

So, among the early steps which we may count upon, will be a decisive advance to higher ground. As we go up the hill the scholarship of the University will strengthen with the effort, and our prominence will attract scholars and students from all parts of the world.

But we cannot take these steps up this hill with mere amiability and a passive acceptance of what others do. The heavy stick, as well as the soft voice, will be in requisition. The city in which the writer used to live was built upon hills. He knows something about hills. If there was a particularly heavy task to be performed it was common to say that "it would be like rolling hogsheads of molasses up State street in the winter time." We have some very heavy loads to carry up the hill,—heavier than many are accustomed to see, but we can carry them to the very top, if we have nothing but the advancement of learning and the good of the people of Illinois in our minds, if we keep our feet upon the earth, and our heads cool, and if we all lift together.

A. S. DRAPER.