ADVANCE VERY RAPID

HISTORY OF ENGINEERING AT NEBRASKA UNIVERSITY.

THE FIRST INSTRUCTION IN 1877

Given by Colonel Dudley, Who Was Commandant of the Cadet Battalion—First Department Was in 1884.

(By Prof. R. C. Richards.)

The first instruction in engineering was given at the university in 1877 by Col. E. S. Dudley, then commandant of cadets, but no recognized department was established until 1884, when the department of civil engineering was organized, with Prof. C. N. Little at its head. Upon Professor Little's resignation in 1893 Prof. O. V. P. Stout was placed in charge of the department, a position which he still retains. Until the completion of Mechanic Arts Hall in 1899 the department was housed in University Hall.

In 1891 the late Prof. Dewitt B. Brace, head of the department of physics, organized the course in electrical engineering, with Prof. R. B. Owens in charge of the technical work. The north room of what is now the so-called engineering laboratory was erected as an electrical laboratory, and class work was done in Nebraska Hall. This affiliation with the department of physics continued made professor of electrical engineering was made an independent department. Upon Prof. Owen's resignation in 1898 Prof. Morgan Brooks was madep rofessor of electrical engineering, a position he held for three years, when he was succeeded by Prof. G. H. Morse, the present head of the department. At the present time the department retains the old dynamo laboratory, and its other laboratory and class work is given in Mechanic Arts Hall.

Two Additions Are Made.

In 1892 Prof. C. R. Richards was called to take charge of the newly created department of practical mechanics. Two additions were made to the old dynamo laboratory to provide a drawing room and the wood and forge shops. With the completion of the Mechanics Arts Hall it became possible to extend the work so a credible course in mechanical engineering could be given, and the department of mechanical engineering was organized in 1899 with Prof. Richards in charge. In 1895 Prof. Richards was made director of the newly organized school of mechanic arts, which provides a short course of practical instruction for students who are not prepared for college work in engineering, or who prefer to remain in the university for a brief period only.

In 1897-98 the department of machine design was created with Prof. R. A. Chandler in charge. The following year he was succeeded by Prof. G. H. Morse, and later by Prof. Melvin Price. In 1906 the department was completely reorganized to include the work in applied mechanics and machine design, and Prof. George R Chatburn was selected as the head of the department.

In 1907 Prof. Richards was made associate dean of the industrial college in charge of engineering instruction, thus in a measure differentiating the work of engineering from that in the industrial college.

From one man, in 1884, the faculty of the engineering departments has increased to a total of fifteen men, giving full time to engineering instruction in 1908. From a very small number of students in engineering in 1884, the total registration has increased to something like 450 in 1908. From a very few graduates per year to the earlier years following the inauguration of engineering in the university, the departments have grown until 49 degrees in engineering were granted in 1908. In 1906, when careful statistics were compiled, it was found that 38.2 per cent of the male freshmen registration were engineers; 25.4 per cent of the whole freshman registration were engineers, and about 24 per cent of the whole university undergraduate registration were engineers. If present figures were available it would probably be found that no great change in comparative registration has occurred.

Remain in Profession.

An unusually large number of Nebraska's engineering graduates have remained in the profession after leaving the university. These men may be found scattered all over the world, wherever technical knowledge is in demand. Several of the very well known engineers of the country are numbered in the list of graduates, and a good many of the men are receiving salaries which are, to say the least, satisfactory.

Fifteen years ago engineering graduates were not in great demand. The tremendous industrial development of the past ten years has created an unprecedented demand for men of technical training in every line of business activity. The demands for the conservation of national resources and the increasing complexity of modern life continually present problems which in the end must be solved by the engineer. It is thus undoubtedly true that there will be an increasing rather than a decreasing demand for technical men of all grades, from the man of the highest engineering ability to the vast army of subordinates. For several years the demand for Nebraska engineering graduates has been greater than the supply.

This development of engineering at the University of Nebraska has been very gratifying to those interested in the work. In spite of "stiff" courses, and a lack of adequate room, equipment and instructional staff, the number of students has steadily increased. With the completion of the fine new mechanical engineering laboratory described elsewhere) and the readjustments made possible by the completion of this building, the work of the engineering departments will become more thorough, interesting and effective. The completion and equipment of the new building is but the beginning of a program of betterment which it is hoped may be carried out within a few years.

After a careful study of the building and equipment in a majority of the better institutions of this country, the writer is of the opinion that this building, when properly equipped, will be at least the equal of any similar structure in the United States in design, convenience, arrangement and equipment.

When the department of mechanical engineering moves into the new building, the old shop building will be refitted for the use of the department of electrical engineering and the Mechanic Arts hall for the department of civil engineering and applied mechanics.

Electrical Engineering Laboratory and Lighting Plant

TO EQUAL THE BEST.

(Continued from Page 1)

seating over two hundred persons, and a lecture room seating about sixty students. On the first floor a lavatory 30x50 feet will contain nearly four hundred lockers, and thirty individual wash bowls provided with hot and cold water.

Very careful study has been made of every detail of the building and its equipment. The building will be heated by direct radiation and ventilated by tempered air blown into the rooms. The electric lighting of the building will be superior to that in any other building at the university. Most of the rooms will be lighted by tungsten lamps in sufficient number to give brilliant illumination. In some of the laboratories flaming arc lamps will be used. The plumbing will be of the best, designed for convenience and with due regard to sanitation.

PLAN OF ENGINEERING SOCIETY.

Associate Membership Is Now Required of Students.

The engineering society was organized "to promote engineering fellowship, to give the engineering departments more prominence, and to provide from time to time pleasing and instructive entertainments for the public."

During the nine years of its existence the society has certainly lived up to its purpose, and is today the largest and one of the most successful societies in the university. It has a membership of nearly one hundred and twenty-five.

Last year an associate membership was established, and now a student cannot become an active member of the society until he has been an associate, in good standing for four months, and has made at least ten hours' credit in the engineering school. This has raised the standard of the society. Any engineer is eligible to associate membership. The society aims to provide for instructive entertainment by having prominent men lecture at the regular meetings, and in this way facilitate means whereby students may learn what is being done in the outside world. To draw the students into closer fellowship the society gives several smokers during the year which have been very successful in the past. All engineering students are invited to attend these smokers, and every effort is made by the members to get them acquainted with their fellow students and with the members of the faculty wso usually take an active interest in the affairs of the society.

The regular meetings of the society are held on every other Wednesday evening in Science hall of the Temple. The officers for this year are: C. R. Fulton, president; O. L. Olsen, vice-president; W. J. Wohlenberg, secretary; C. W. Hutchison, treasurer; F. N. Wildish, corresponding secretary.

The officers are working hard to make this the most successful year since the organization of the society, and if present indications predict anything their efforts will certainly not have been in vain. It is like someone has said: "The engineers are like the Dutch—they stick together."

THE NEBRASKA A. I. E. E. BRANCH

Established in 1908 With a Membership of Twenty-seven.

The University of Nebraska branch of the American Institute of Electrical Engineers was organized April 10, 1908, with a membership of twenty-seven. Its purpose is to gather together those interested in electrical engineering, that their interest in the subject and knowledge of its breadth and possibilities may be increased. It supplies a want in the electrical engineer's life which cannot be satisfied by the study of the bare details of text books.

The A. I. E. E., as it is popularly known, meets on the first Tuesday in each month. At these meetings original papers are read, talks given by outside engineers, or discussions of good papers, which have been presented in other branches, are given. When visiting speakers are procured the expenses are borne by the institute as a whole. Hence the burden does not fall heavily on each branch.

This year three meetings have been held, in which the following papers have been presented:

High Potential Transmission of Power—Prof. Geo. H. Morse.

Conservation of Power Resources—Prof. C. L. Dean.

Installation of Three Phase Motor System—Clarence Johnson, '08.

Electrification of Steam Railways—I. F. Baker, '09.

In all of these meetings there has been a good attendance, and many of those present have taken an active part in the discussion of the subjects presented.

The benefits of membership in the A. I. E. E. are exceedingly valuable to the young engineer, as he is brought in contact with practicing engineers. Further, he becomes proficient in expressing his thoughts and ideas on a subject by reason of the open discussion and the privilege of presenting papers before the society, and finally, each member receives a copy of the Proceedings of the American Institute of Electrical Engineers, which is filled from cover to cover with practical and interesting subjects.—I. F. Baker, U. of N., '09.

Those taking sophomore physics at Boston Tech are asking for an extra recitation hour each week, in order to distribute the work. They claim that too many flunk the course and that those who get through do not get the work well enough.

The literary societies at Iowa have taken their complaint as to putting all social events on their meeting nights to the university senate.

The De Pauw juniors recently came to chapel in their new class lids. The hats are black and gold. One hundred of the class appeared, sang their class song, and occupied gallery seats during the exercises.

The delinquents at Chicago are to be dropped from the rolls. To escape this fate students there must keep their work above the grade of D for three quarters.