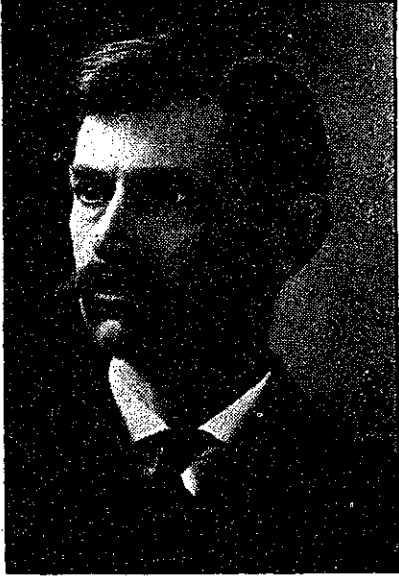


PROPOSED SUMMER COURSE

By Prof. A. G. ROBBINS.

The necessity for transferring the field-work in surveying to the summer has arisen from the changed conditions brought about by the extension of the thickly populated parts of the city, by the greatly increased size of the classes and by the crowded curriculum. In the early days of the Institute of Technology there were a number of



PROF. A. G. ROBBINS.

tracts of unoccupied land within a few minutes' walk of the Institute buildings where surveying field-work could be efficiently taught. For several years, however, it has been necessary to teach a large part of surveying at places from eight to fifteen, and in some cases, twenty-five miles from the city. Much time is lost in travel, and thus the already too little time given to this important subject is greatly reduced.

In other ways the efficiency of the surveying field-work is impaired. The

ever-increasing amount of subject matter which ought to be included in an Engineering Course, and the commendable ramifications of student activities, claim their share of the students' energy, so that few of them give the full measure, either of time or thought, needed for a working mastery of the art.

These are some of the reasons which have led to the recommendation that a course in surveying be required of students in Civil and Sanitary Engineering in the summer following the second year, a recommendation which the whole department feels should be speedily adopted or our surveying field-work will have to be reduced to laboratory exercises limited to the setting up and use of instruments.

This work can be most satisfactorily done, the writer believes, at a camp, the site for which should be so chosen as to afford opportunity for efficient teaching of plane, topographic, hydrographic, and geodetic surveying, railroad location, river gauging, and tidal measurements.

Such a location can, doubtless, be obtained. When this shall have been done the instruction in surveying given by Technology may be made superior to any now given here or elsewhere.

WORK OF ASSISTANTS

By MR. J. W. HOWARD.

The position of assistant in the Department of Civil Engineering may be considered temporary, as very few of the men remain longer than two years. For this reason it becomes necessary to fill these vacancies frequently. This is done by asking a number of the graduating class to return. Many advantages are offered to these men which they could not obtain if they entered directly into professional work. The duties of an assistant are not so confining as to prevent him from attending classes or engaging in a limited amount of outside work. There is a fine opportunity for advanced study, undergraduate work or a general review of his professional work. This may be

done by attending classes or studying by himself. Whichever method is chosen there is always the opportunity for consulting men at the head of the profession. I cannot lay too much stress on the importance of reviewing one's work after graduation. This should be done to fix clearly in mind the work taken up at the Institute and to settle definitely any questions which there are about this work.

At graduation a great many men are in doubt as to what kind of work to enter. Returning to the Institute as an assistant gives these men an opportunity for further investigation before deciding this question. Information is readily obtained regarding the different kinds of work. If one returns as an assistant his decision need not be hasty.

A very important part of the assistant's duty is his instruction in field-work. All the assistants in Civil Engineering have this opportunity for teaching. The fieldwork consists of exercises in elementary surveying and topographical and railroad engineering. This is valuable to the assistant as it gives him the opportunity to look at this work from the standpoint of a teacher. In addition to teaching this work the assistant acts as chief of party in the field. Under his direction the work progresses in the same manner as it would if he were holding a similar position in an engineering office.

Another important advantage of which we must not lose sight is the closer contact with the professors. The assistant comes to know his former teachers far better than as a student. This better acquaintance obviously means better understanding. Right here I may add that besides being allied with these men he has an unusual opportunity of meeting other engineers.

Thus far I have mentioned only the advantages connected directly with the Institute. I now wish to mention a few of the advantages that may come to an assistant due to his position. There is more or less outside work in which an assistant may engage. This work comes from quite different sources and gives the assistant both responsibility and very varied experience. Sev-

eral members of the department teach some engineering subject at evening schools. Often these courses are a combination of lectures, recitations and drawing-room work. There is no better training than this for one to learn how to present a subject in a clear and concise way.

INSTRUCTING STAFF

C. Frank Allen, S. B., Professor of Railroad Engineering, graduated from M. I. T. in 1872. He engaged in professional work until 1887, when he returned to take up teaching at the Institute, being made Assistant Professor at that time. Two years later he became Associate Professor and in 1896, was promoted to the rank of Professor.

During the fifteen years between graduation and returning to the Institute, Prof. Allen was gaining that wide experience and knowledge of the legal as well as the practical side of railroading which makes him so eminently fitted for the position at the head of the railroad engineering courses in the Civil Engineering department.

Upon graduation, he went to Providence, R. I. and was engaged for four years in water works and sewerage problems. He then went to Newton, Mass., where he was in charge of the construction of the open reservoir on Hammond St. near the Newton Boulevard. For a short time after the completion of this work he was connected with sewerage work in Boston.

In 1878, Professor Allen turned to newer and larger fields in the West. He went into the employ of the Atchison, Topeka and Santa Fe R. R., at Pueblo, Colo. During the years which he remained with this railroad he spent part of the time in office work, and part in construction work. For some time he was right-of-way agent.

Later at the suggestion of the railway, he began to study law and was admitted to practice. As a lawyer Professor Allen represented his railroad at Socorro, New Mexico, and also served for some time as City Attorney.

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