MECHANICAL ENGINEERING

By Prof. Gaetano Lanza

In most industrial pursuits there are certain processes to be carried out and attention must be given to developing and improving the means of doing this effectively and cheaply, to the best machines to be used for all the steps, a consideration of their efficiency, durability, first cost, the expenses necessary for their attendance, also for their maintenance, repairs, etc., in the construction and arrangement of the power plant whether steam or water is used, to the system of such questions the mechanical engineer is concerned, and his duties consist in solving problems of this kind as they arise. In order that he may be successful he needs: first, a knowledge of scientific principles and of the existence of the past, and second, his own experience. The latter cannot be imparted in a school, but each man must acquire it for himself subsequently.

Hence the function of the school is to give to the student knowledge and power to apply scientific principles, so that he may be able to make use of those which bear upon his particular work. Such a purpose is clearly outlined in "A Plan for a Polytechnic School in Boston," by Prof. William L. Rogers in 1846. (See Life and Letters of W. L. Rogers, p. 430, et seq.) The first catalogue of the Institute was issued in 1865 and the first course in the list, then called Course I, was in Mechanical Engineering.

A very large number of applications to engineering work are introduced, thus acquainting the student with present practice, with the problems that arise in the pursuit of his profession, and with the main steps in applying to their solution not only the theory, but also the results of experiments, and this is considered a very important part of the instruction. In addition to the professional subjects a considerable amount of time is devoted to literary, historical, and economic studies with the view of giving the student a greater breadth, and to aid in making him a well-rounded man.

There is also another matter that is of the greatest importance to the prospective engineer, and that is, that he should be given a right to perform original investigations inasmuch as the ability to conduct an investigation is much needed by the engineer in the practice of his profession, and with this purpose in view, it is an experiment in this department that the student receive a degree, this thesis to consist of an investigation of some original character.

The investigations made in the laboratory, partly in connection with the regular laboratory work and partly by means of the thesis work, may be classified as follows:

(a) Those made in the laboratory itself.
(b) Those made in some outside plant.

In the case of the first, many have for their object the determination of results of value to engineers and manufacturers, and others engaged in industrial pursuits. The engineering laboratories are often the means of giving direct aid in solving industrial problems such as determining the efficiency of new designs, or the relative advantages of different methods of construction.

In the case of the second class, a part of the investigations are of such value to engineers, manufacturers, and others, that in many cases the owners of the plant have furnished the use of their apparatus and have often spent considerable money to fit it up. As to opportunities for work, it will be sufficient to say that, notwithstanding the number of graduates in mechanical engineering is very large, the total number of those graduated in this department being thus far, nine hundred and sixty-five, the demand far exceeds the supply.

FIELD DAY

By H. D. Williams

The Technology Congress "Field Day" will be held this afternoon at 2:30 P. M. in the Tech grounds. A good list of events is in store for all who go out and see. A Mid Winter game played by Tech men and it will be a chance of a life time to see a star game and hear all of Tech's "dyed in the wool" rooters. Come out and see a mid season game played by Tech men. Two umpires will officiate so as to leave no opportunity for any decisions to be questioned.

At 3:15 the relay race will be run off and something big in the way of running can be looked for. The race consists of four men on a team, each class to have a team. The first man will run a two-twenty, the second a quarter mile, the third a half mile and the last man will run a mile. Each class has a speedy quarter and it would not be surprising if a record were made. The best man in the institution will run so it will be a chance for us all to size up our chances of winning the N. E. I. A. A. later in the Spring.

Directly after the Relay race, the second Tug of War will be held and the Base ball game will be finished. At 4:15 two picked teams will take the field and an Association football game will take place. The two teams are composed of fellows who have played the game at Tech field. A good list of events is expected for the sports will then close with the third Tug of War which will run off in case of a tie.

During the afternoon various events will be put on and one will find a dull moment in the whole day. Such races, obstacle races, and a Fat Man's race are possibilities. With such an interesting day, a good list of events for the student body to turn out as a whole is sure to accompany every student. Come out and have a good time. Bring a horn, a cow bell and actively competing come out and make yourself heard. Bring a horn, a cow bell and actively competing come out and make yourself heard. Bring a horn, a cow bell and actively competing come out and make yourself heard. Bring a horn, a cow bell and actively competing come out and make yourself heard. Bring a horn, a cow bell and actively competing come out and make yourself heard. Bring a horn, a cow bell and actively competing come out and make yourself heard. Bring a horn, a cow bell and actively competing come out and make yourself heard.