

**The Knowledge Bank at The Ohio State University**  
**Ohio State Engineer**

**Title:** Doings at Other Engineering Colleges

**Issue Date:** Apr-1923

**Publisher:** Ohio State University, College of Engineering

**Citation:** Ohio State Engineer, vol. 6, no. 3 (April, 1923), 18, 31.

**URI:** <http://hdl.handle.net/1811/35064>

**Appears in Collections:** [Ohio State Engineer: Volume 6, no. 3 \(April, 1923\)](#)

## DOINGS AT OTHER ENGINEERING COLLEGES

### PRINCETON

The sum of \$10,000 has been given to Princeton University in the name of and as a memorial to William Pierson Field of the class of 1893. The income from the fund is to be used by the Engineering Department to engage, from time to time, eminent practicing engineers to visit Princeton and assist in the actual work of instruction in the various scheduled courses. The plan is very similar to the one which has been in successful operation for a number of years in the Engineering school at Yale. The university has a similar plan in the School of Architecture, where a prominent practicing architect comes down one afternoon each week throughout the term to talk to and consult with the students in their design work.

Princeton has a new skating rink, a memorial to Hobey Baker.

### CORNELL

Cornell's stadium is soon to be enlarged, the present capacity of 9000 to be increased to 20,000. It is expected that this project will be complete in time for the 1923 football season.

The university has a new telescope, and Cornell now claims to be as well equipped for astronomical study as any of the observatories of the United States, excepting only a few of the larger government stations. The lens is of Belgian make, shipped to America and ground here by a New York firm. Its equal is hard to find anywhere in this country from the point of view of quality, actual size, or magnifying power. The material came from the best of Belgian glass factories, is of pre-war quality and is twelve inches in diameter, with a magnifying power of 900 diameters under good weather conditions.

### MICHIGAN

Considerable building is going on at the University of Michigan. The new Engineering Laboratories are nearly completed, as is the new Educational building. The construction has been started on the new Physics building. Excavations for the new Literary building have been evident for some time. The monster field house is assuming the proportions of a real structure. It will probably be completed late in 1923. Clement's Library, a library of American History, is nearly completed.

An advanced course in radio has been announced by the electrical department. It will be a four-hour course, with three recitations and a half-day laboratory period per week.

### PENN STATE

Penn State's emergency building fund campaign for \$2,000,000 passed the half-way mark in late January, less than four months after it was officially launched. The erection of a \$600,000 men's physical education building is contemplated.

The university recently had an exhibit of all branches of their engineering courses.

### THE CARNEGIE INSTITUTE OF TECHNOLOGY

An important change is announced at Carnegie Institute of Technology in the consolidation next September of the freshman classes in

the College of Engineering and the College of Industries. At present, the first year classes of each of the two colleges have different curricula. With the new change in effect, they will be conducted as a single class having the same schedule, entrance requirements, and administration.

The desirability of such a measure has long been felt, says the report, and it is expected to be a real improvement over the present courses because it will give the entering student an entire year to decide before specializing in courses in Engineering, or in Industries. Investigation showed that many students entered with the intention of becoming engineers, but later preferred to specialize in courses in the Industries College, and vice versa.

Remarkable photographs of high-speed collisions of the nuclei of atoms obtained by the use of moving picture machine were shown by Dr. William Draper Harkins of Chicago University, in a series of lectures March 7, 8 and 9 at Carnegie Institute of Technology, Pittsburgh. A new discovery by use of the photos was that the helium nucleus, used as a projectile, rebounds in a backward direction while the nucleus of the nitrogen atom which is hit is projected forward; both at speeds of several thousand miles per second.

Dr. Harkins, who discussed the general subject of "Isotopes, and the Building and Disintegration of Atom," spoke before representative audiences of Pittsburgh scientists, at each lecture. He traced the development of the atomic theory from its purely speculative beginning in the minds of the ancient philosophers to its present status as an experimentally demonstrated fact. Evidence was shown that each individual atom is a very complex body, which may be likened to a minute solar system, whose constituent parts may attain a velocity of many thousand miles per second.

In describing the discovery of radioactivity and of radium, he showed how these discoveries have enabled scientists to draw an accurate picture of the atom with its central "sine" or positively charged nucleus and its attendant "planets," or charges of negative electricity, called electrons. The fact that many substances such as lead and chlorine, which were formerly considered elementary and now known to be mixtures of substances which resemble one another closely, were shown to have an important bearing on the subject of the constitution of the atom. The separation of these almost identical substances, called isotopes, was described. Dr. Harkins further developed the theory that the complex atoms are built largely from atoms of helium, which may be regarded as the atomic building blocks, capable of being assembled into various structures.

### UNIVERSITY OF ILLINOIS

In a recent address to the juniors and seniors of the University of Illinois, Dr. Ira O. Baker of that institution flayed technical training that has as its object the mere accumulation of facts

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tional ability and broad knowledge of general matters marks the engineer as an ignorant man, no matter how many degrees he may hold.

The cultivation of intellectual power and not the acquisition of technical ability is, according to Doctor Baker, the most important purpose of an education, even though it be an engineering education. For this reason breadth of knowledge, with insight into the fundamental relationships of life—economics, politics, social welfare, government, the relations of capital and labor, law, and human nature—is an essential part of an engineer's training. Initiative gained by attacking the harder problems met in the daily grind of an engineering course, coupled with a broad knowledge and aided by technical ability, will produce a superior engineer. Executive ability, calling for an understanding of men, is to be cultivated by participation in student activities. "Infinite good," said Doctor Baker, "will result from rubbing elbows and exchanging views with fellow students, and work on committees will train the student in executing duties."

The final element in engineering success, Doctor Baker thinks, is clear and forceful speaking and writing.

Coming from a man of long experience in training students and studying their performance after graduation, these views should mean much to the undergraduate. The fact that they have been expressed before and will bear repetition again adds greatly to their importance. They may well be considered by the young engineer at Tech for he is just a little inclined to scoff at ideas such as these and to place altogether too much confidence in the value of his degree.

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in declaring that lack of social graces, conversa-