toniales and Pteridospermae and the evolution of Angiosperms. Flower morphology. Female fructification and phylogeny of Conifers. Taxonomy and genetics. Phylogeny and taxonomy of Phycomycetes.

ECONOMICS AND THE SOCIAL SCIENCES AT THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY

A NEW departure in technological training to meet a growing demand for engineers with a thorough understanding of the social and economic implications of their profession has been announced by President Karl T. Compton, of the Massachusetts Institute of Technology. The institute will offer a new five-year course which will include advanced studies in the social sciences and economics. This course, which in no way affects the regular four-year courses in science and engineering, has been approved by the faculty and the corporation. It will be offered next autumn in nearly all the professional fields of the curriculum.

In the announcement Dr. Compton says:

> The new course will include essentially the same professional studies as at present in any one of the departments of engineering or science, but will also include an increasing program of more advanced studies in the fields of economics and the social sciences running through the last three years of the five-year course. In the fifth year a considerable amount of time will be devoted to a thesis on some subject which combines the professional and economic aspects of the problem which is chosen. On satisfactory completion of the fifth year there will be awarded the degree of bachelor of science in the professional field, such as civil or electrical or mechanical engineering, or chemistry or physics or biology, and also the degree of master of science in economics and engineering.
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> It was General Francis A. Walker, as former president of the Massachusetts Institute of Technology, who first had a clear vision of the coming economic importance of the engineer's work and reduced this vision to practise by the introduction of economic studies into the regular program of professional training at this institution. Later, under the influence of Professor Davis R. Dewey, an offshoot of this work in economics developed into the present important and flourishing department of business and engineering administration.
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> It is our conviction that the five-year course now being established represents another important step in the training of men in applied science, with a realization of the social implications of their work. It will constitute an introduction to the ideas and techniques through which the social and economic effects of engineering are woven into the complex pattern of our present civilization.

THE BELTSVILLE RESEARCH CENTER

SECRETARY WALLACE has formally designated the field activities at Beltsville and at Bell, Md., as the "Beltsville Research Center of the Department of Agriculture" and has named Dr. E. N. Bressman as temporary director. This action brings together under one administrative head most of the field activities of the department in the vicinity of Washington. It is planned to develop the Beltsville Research Center, comprising about 4,500 acres, about 15 miles northeast of Washington, as the principal experimental area under control of the department and as the largest and most completely equipped plant for the scientific study of agriculture in this country.

Already ten bureaus of the department are conducting or are definitely planning activities in this area. The policy of the department will be to continue concentrating all the field work of this nature at Beltsville. The new center will be organized to control the whole area and will include the plant introduction garden at Bell.

Buildings have been erected during the last year or two, both as a part of the regular program of the department and more recently under several emergency funds for stimulating employment. Additional buildings will be required to house activities that will be shifted to this area as conditions make the moves desirable.

The director of the center will represent both the secretary and the chiefs of the various bureaus engaged in work at the center. He is charged with "continued development and coordination of the Research Center on a comprehensive and orderly plan," and will have custody of and control the assignment of lands, building equipment to promote efficient use of facilities for maximum service and economy of operation of the center as a whole.

The ten bureaus now assigned to conduct work in this area are: the Bureaus of Animal Industry, Plant Industry, Dairy Industry, Agricultural Engineering, Entomology and Plant Quarantine, Chemistry and Soils, Agricultural Economics and Biological Survey, and the Food and Drug Administration and the Forest Service. Other departments of the government also have some activities at the research center. It is planned ultimately to move to Beltsville many of the activities which have been under way at the Arlington Experimental Farm just south of Washington.

Starting years ago primarily as a farm where the Bureau of Animal Industry could keep animals required for its research, the area has developed because in one line of work after another the need has been felt to take the laboratory to the field. For practical value, too, the concentration of varied lines of research in one area is desirable because it runs more nearly parallel to farm experience where crops are planned as feed for animals. Research at Beltsville in genetics and in long-term programs of breeding for improvement of beef and dairy cattle, swine, sheep

and other animals and for study of animal diseases and parasites has required the expansion of the original farm, and the area required to maintain the larger herds may be used at the same time in many of the other lines of research not directly connected with the work with animals.

In recent years the department has increased its cooperative work with many of the State Experiment Stations—as in the large-scale studies of methods of feeding beef animals for quality—and the Beltsville center has served as a place for comparing the results of experimental feeding all over the country.

THE AMERICAN STANDARDS ASSOCIATION

DR. P. G. AGNEW, secretary of the American Standards Association, reports that membership has increased to 42 member-bodies and associate members and 1,233 company members; since January, nine associations have become member-bodies or associate members.

The American Standards Association is the national clearing house for standards and safety codes. It was formed in 1918 by five technical societies which felt the need of developing inter-industry standards out of their own technical standards.

More than 250 codes have been developed by the association, and nearly 200 are under development or are being revised. More than 3,000 engineers, scientific men and industrialists, representing manufacturers, technical societies, consumers and government departments, serve on its numerous committees.

The National Electrical Manufacturers Association, and the Casualty Group of the American Mutual Alliance, have increased their memberships to make available the facilities and services of the American Standards Association to all of their members. Six hundred and seventy-three companies are represented by these groups.

During this period, eleven other companies have joined the association, and four corporations have voluntarily increased their dues.

The American Petroleum Institute, the National Association of Master Plumbers of the United States and the American Institute of Bolt, Nut and Rivet Manufacturers are the new member-bodies.

Associate member affiliations include the Illuminating Engineering Society, the American Hospital Association, the Society of Motion Picture Engineers, the Library Group, which consists of the American Library Association and the Special Libraries Association, the American Water Works Association and the Grinding Wheel Manufacturers Association of the United States.

New company members that have joined since the first of the year are E. I. du Pont de Nemours and Company, the Electric Bond and Share Company, the Foxboro Company, Gilbert and Barker Manufacturing Company, the Texas Cities Gas Company, the Wright Aeronautical Corporation, the Fellows Gear Shaper Company, the Neville Company, John Barth and Company, the O. K. Tool Company and the Carrier Corporation.

The following have been appointed members of the Advisory Committee: George B. Cortelyou, president of the Consolidated Gas Company, who served as Postmaster General and later as Secretary of the Treasury; Sewell L. Avery, chairman of the board, Montgomery Ward & Company, and president of the U. S. Gypsum Company; Lammot du Pont, president of E. I. du Pont de Nemours & Company, and chairman of the General Motors Corporation; Walter S. Gifford, president of the American Telephone and Telegraph Company; Henry I. Harriman, president of the Chamber of Commerce of the United States; W. A. Irvin, president of the U. S. Steel Corporation; James H. McGraw, chairman of the board, McGraw-Hill Publishing Company; Gerard Swope, president of the General Electric Company; Daniel Willard, president of the Baltimore & Ohio Railroad.

THE NEW YORK MEETING OF THE AMERICAN PSYCHOLOGICAL ASSOCIATION

THE forty-second annual meeting of the American Psychological Association was held at Columbia University on September 5, 6, 7 and 8, under the presidency of Dr. Joseph Peterson, chairman of the department of psychology at the George Peabody College for Teachers, Nashville, Tenn. Dr. Peterson's address was entitled "Aspects of Learning."

The association held twenty-four sessions, which, with their presiding officers, were as follows:

General: Joseph Peterson, George Peabody College for Teachers.

Mental Tests: J. McKeen Cattell, New York.

Aesthetics: H. L. Hollingworth, Columbia University.

Sensation and Perception: Walter B. Pillsbury, University of Michigan.

Clinical Psychology: Robert S. Woodworth, Columbia University.

Animal Psychology: Dr. Robert M. Yerkes, Yale University; Walter S. Hunter, Clark University; Leonard Carmichael, Brown University; Harvey Carr, University of Chicago; John E. Anderson, University of Minnesota.

Vocational Psychology: Edward L. Thorndike, Columbia University.

Galvanometric Studies: Knight Dunlap, The Johns Hopkins University.

Child Development: Walter R. Miles, Yale University.

Personality Measurement: Henry E. Garrett, Columbia University.