

sure the carrying out of the work of Dr. William Beebe and his staff for the remainder of the current year at the station at Nonsuch Island in Bermuda, which has been used for several years previously for marine study.

A report was also submitted regarding the plans which are under way through which the society will be represented at the World's Fair in 1939. To date these plans include a so-called bathyspherium, which is being designed to exhibit deep sea life, together with novel types of aquarium exhibits.

There were also presented at the meeting certain projects which are under consideration for broadening the usefulness of the society to the public, particularly in connection with educational activities and in the development of zoological research work through the medium of a new laboratory in the animal hospital which has just been opened.

Among the more recent exhibits at the park are a Masai giraffe, a pair of secretary birds, an Asiga gazelle antelope from Russia and a wattled crane from East Africa—the two latter being displayed for the first time at the park.

It was reported that the attendance at the park was in excess of one million visitors through May 31, and the attendance at the aquarium was 965,209, being substantial increases over the similar period of the preceding year.

After the meeting the annual garden party was held on the lawns in front of the Administration Building attended by more than six hundred members and friends of the society.

FAIRFIELD OSBORN

THE ANNUAL MEETING OF THE SOCIETY FOR THE PROMOTION OF ENGINEERING EDUCATION

THE Society for the Promotion of Engineering Education is holding this week its forty-fifth annual meeting at Harvard University and the Massachusetts Institute of Technology.

Conferences, designed to supplement the general sessions, include round-table discussions, presentation of papers dealing with various phases of the engineering curricula and laboratory inspections at both Harvard University and at the Massachusetts Institute of Technology. The subjects planned for discussion include cooperative engineering courses, drawing and descriptive geometry, electrical engineering, engineering economy, English graduate work, guidance of pre-college students, industrial engineering, machine design, mathematics, mining and metallurgy and the professional status and employment of engineering graduates.

At the opening session, Dr. Vannevar Bush, vice-president of the Massachusetts Institute of Technol-

ogy and dean of engineering, with Dean-elect Harald M. Westergaard, of the Graduate School of Engineering of Harvard University, and Carl S. Ell, chairman of the New England Section of the society, welcomed the gathering. Following a response by President Hammond on behalf of the society, Dr. Karl T. Compton spoke. President Hammond then gave the annual presidential address, for which he chose as his subject "The Engineering Teacher." President Hammond presided at the annual dinner on Thursday evening at which President Henry M. Wriston, of Brown University, was the principal speaker.

Papers on the program read at the meetings include addresses by Henry W. Holmes, dean of the Graduate School of Education of Harvard University, on "Practical Outcomes of the Study of Education Since 1900," and by President William O. Hotchkiss, of the Rensselaer Polytechnic Institute, on "Administering the Faculty"; Frederick M. Feiker, executive secretary of the American Engineering Council, presented a paper on "The Teacher and the Social Significance of the Engineer." Other speakers were Professor Warren K. Lewis, of the department of chemical engineering of the Massachusetts Institute of Technology; Professor Thomas N. Whitehead, of Harvard University; Professor Virgil M. Faires, of the Agricultural and Mechanical College of the University of Texas; Professor Frank L. Eidmann, of Columbia University, and Dr. Paul Cloke, dean of the College of Technology of the University of Maine.

HONORARY DEGREES CONFERRED BY YALE UNIVERSITY

ELEVEN honorary degrees were conferred by Yale University at its commencement on June 23. These included the doctorate of science on Dr. E. O. Lawrence, of the University of California, and on Dr. John H. Northrop, of the Rockefeller Institute for Medical Research. Dr. William Lyon Phelps, public orator of the university, presented the candidates, and President Angell conferred the degrees. The citations were as follows:

Ernest Orlando Lawrence, Sc.D.

Professor Phelps:

Physicist. Born in the twentieth century in South Dakota. A student of St. Olaf College, Northfield, Minn., holding bachelor's and master's and doctor's degrees from the University of South Dakota, University of Minnesota, University of Chicago, and Yale, where he subsequently became national research fellow and assistant professor. Dr. Lawrence is now Professor of Physics at the University of California. His researches in the structure of atoms, atomic nucleus, transmutation of atoms, interaction of radiation and matter, have given

him a world-wide reputation. He is the inventor of the cyclotron that gives to atoms the speed of lightning, enabling them to transmute the chemical elements at a greater rate than was hitherto possible. He is the discoverer of radio-sodium, destined largely to replace the costly radium in many of its uses for the alleviation of human suffering. His reputation would be remarkable for any scholar, but for one in his thirties, it is astonishing. It is also fortunate; for both Dr. Lawrence and the cause of science which he serves may look forward to many years of constantly increasing work and service. This modern alchemist has transformed the elements into one another and has produced forms previously unknown, but with rare self-control has refrained from changing the baser metals into gold.

President Angell:

A brilliant young general in the ranks of physical science, whose dramatic victories are everywhere recognized, your Alma Mater is glad to add to the honors you have already won the degree of Doctor of Science admitting you to all its rights and privileges.

John Howard Northrop, Sc.D.

Professor Phelps:

This man, born in Yonkers and with much of his life spent in New York City and in a laboratory in the Rockefeller Institute at Princeton, is paradoxically an outdoor naturalist and sportsman. He earned three degrees at Columbia, and set out in the world with a broad training in botany, zoology and chemistry. Since 1916 he has been in the Rockefeller Institute; but in the appropriate

seasons, any one who gets up at dawn will find him outdoors with rod or gun. During the summer months he is in the North Country making important studies of potato culture and its blight, so that he has made a profitable union of work and play, for scientific research and human welfare. In his early days as a traveling fellow he was associated with the great biologist Jacques Loeb. His specialty has been the application of physical and chemical principles to fundamental biological problems. His work has illuminated many fields and he has made significant contributions to knowledge. His discoveries in pure science have also been of service to health. He solved the riddle of the enzyme; invisible ferments that had hitherto been known only by their action. From his investigations have come principles of wide applicability. He has recently shown that the so-called "Bacteriophage principle" is dependent upon a crystalline protein which is increased as the bacterial host is destroyed. These chemical substances simulate living matter in their behavior, and their discovery provides a basis for a broader concept of life itself. We welcome this scholar to-day into the Yale Brotherhood.

President Angell:

It is to devoted scientists like yourself working quietly and without ostentation to discover the fundamental physical and chemical bases of life that men look for advance in the conquest of disease and in the building of wiser patterns of life. In recognition of your distinguished contributions in this field, Yale University confers upon you the degree of Doctor of Science and admits you to all its rights and privileges.

SCIENTIFIC NOTES AND NEWS

A JOINT meeting of the American Association for the Advancement of Science and associated societies, with the Pacific Division and the Southwestern Division, was held at Denver, Colorado, from June 21 to 26. It was the one hundredth meeting of the association, the twenty-first meeting of the Pacific Division and the seventeenth meeting of the Southwestern Division. An adequate report of the meeting, edited by the permanent secretary, Dr. Forest R. Moulton, will appear in an early issue of SCIENCE.

At a meeting of the Royal Society held on June 17 the following were elected foreign members: Dr. August Krogh, professor of zoophysiology at the University of Copenhagen; Dr. Otto Meyerhof, director of the Kaiser Wilhelm Institute for Biology at Heidelberg, and Dr. Henry Norris Russell, director of the observatory of Princeton University. The Rt. Hon. the Earl of Athlone was elected a fellow of the society under a special clause in the statutes which provides for the occasional election of "persons who either have rendered conspicuous service to the cause of science or are such that their election would be of signal benefit to the society."

At the commencement of Harvard University, the degree of doctor of science was conferred on Dr. Walter B. Cannon and on Dr. J. A. Cushman, and the degree of doctor of laws on Dr. J. M. T. Finney. The citations read by President Conant were: Walter Bradford Cannon, doctor of science—George Higginson professor of physiology, Harvard Medical School. "A physiologist whose careful experimentation with living animals is unfolding to generations of future doctors new knowledge of those immutable laws which govern the human body." Joseph Augustine Cushman, doctor of science—of Sharon, Mass., biologist, director of the Cushman Laboratory for Foraminiferal Research, also on the Harvard faculty. "A pioneer biologist whose microscope explores the geologic ages, a guide to men who pierce the earth in search of liquid treasure." John Miller Turpin Finney, doctor of laws—surgeon, of Baltimore, Md. "A surgeon never contented with his skill, a wise statesman among those who yearly work fresh miracles with the knife."

THOSE on whom honorary degrees were conferred by the University of Wisconsin at its commencement on