the famous forest model collection, twenty-three in number, which illustrate the history, management and use of the local forests. The forest models have been under construction for the past ten years in the studios of Theodore B. Pitman, Cambridge. The museum also contains a large number of case exhibits arranged in the gallery above the models.

Shaler Hall contains a large forestry library, laboratories, offices and living quarters for resident students and visiting scientists.

The new buildings were dedicated on May 13 in the presence of members of the Harvard University Corporation, the Board of Overseers and the members of the committee appointed to visit the Harvard Forest. President James B. Conant presided at the dedication and gave the principal address. Other speakers were Dr. E. D. Merrill, administrator of the Botanical Collections of Harvard University, and A. C. Cline, director of the Harvard Forest. On May 14 the buildings were opened to the public in the presence of nearly 500 invited guests.

The Fisher Museum will be open to the public at the usual hours, and field trips to parts of the surrounding 2,200-acre research and demonstration forest will be arranged.

SUMMER MEETINGS OF THE AMERICAN MATHEMATICAL SOCIETY

THE forty-seventh summer meeting of the American Mathematical Society will be held at the University of Chicago from September 2 to 6, in conjunction with meetings of the Mathematical Association of America and the Institute of Mathematical Statistics. At the time of the meetings the University of Chicago will be celebrating the fiftieth anniversary of its founding, with special exercises, the theme of which has been designated by the university as "New Frontiers in Education and Research." A preliminary announcement of the meeting of the society has been issued.

In connection with the meeting of the American Association for the Advancement of Science to be held at the University of New Hampshire, from June 23 to 27, sessions with the Section on Mathematics of the association (Section A) will be held on June 26 and 27.

A report of the work of the joint War Preparedness Committee of the American Mathematical Society and the Mathematical Association of America is printed in *The Mathematics Teacher* for May, in an article entitled "Mathematics in the Defense Program" written by Professor Marston Morse, of the Institute for Advanced Study, chairman of the committee, and by Professor William L. Hart, of the University of Minnesota, chairman of the Sub-Committee on Education for Service.

As a result of the recent report on mathematics in industry, prepared under the auspices of the Committee on Survey of Research in Industry (appointed by the National Research Council and reporting to the National Resources Planning Board), and in line with the recommendations of the joint Committee on War Preparedness, two centers for training in advanced work in certain special fields of applied mathematics are to be inaugurated this summer—one at Brown University and the other at New York University.

PRESENTATION OF THE WILLARD GIBBS MEDAL

THE Willard Gibbs Medal of the Chicago Section of the American Chemical Society was presented to Dr. Edward A. Doisy, of the School of Medicine of St. Louis University, in Chicago on May 23.

Dr. William Lloyd Evans, of the Ohio State University, president of the American Chemical Society, presented the medal to Dr. Doisy; Dr. E. H. Volwiler, in charge of research and development of the Abbott Laboratories, described his scientific achievements. Dr. Howard B. Lewis, director of the College of Pharmacy of the University of Michigan, spoke on his personal qualities. Dr. W. F. Henderson, of the Visking Corporation, chairman of the Chicago Section, discussed the Willard Gibbs Medal, which, recognizing "conspicuous contributions in chemistry," was founded in 1911 by William A. Converse, secretary of the Chicago Section from 1901 to 1909, and was named for Josiah Willard Gibbs, professor of mathematical physics at Yale University from 1871 to 1903, called "America's greatest man of science." Dr. Doisy delivered the Willard Gibbs Medal address on "Recent Developments in the Investigation of Vitamin K and Other Antihemorrhagic Compounds" on May 24.

In the official announcement the following account is given of the work in recognition of which the medal was awarded.

Dr. Doisy began his researches on female sex hormones eighteen years ago and is still pursuing them with undiminished vigor. In 1929 he isolated the first pure crystalline female sex hormone, theelin. A second hormone, theelol, was shortly isolated in crystalline form in Dr. Doisy's laboratory and elsewhere.

In 1936 Dr. Doisy isolated dihydrotheelin, a third female sex hormone. He also developed a satisfactory method for the preparation of the chorionic gonadotropin or so-called anterior pituitary-like substance. The commercial production of theelin and other estrogenic substances has become of great importance to the medical profession.

Dr. Doisy's interest in the antihemorrhagic vitamins was entirely independent of his endocrinological research. Work on the fractionation of vitamin K extracts was begun in 1936 and by the early part of 1939 two antihemorrhagic vitamins had been isolated, vitamin K_1 from alfalfa, and vitamin K_2 from putrefied sardine meal.

The chemical constitution of vitamin K_1 was worked

out and its synthesis accomplished. Experiments have already indicated the probable structure of vitamin K_2. A considerable number of synthetic compounds known as naphthoquinones have also been shown to possess antihemorrhagic activity.

The utilization of vitamin K preparations and of the synthetic naphthoquinones by the medical profession has already resulted in the saving of many lives not only among those suffering from hemorrhagic disease due to obstructive jaundice but also among the newborn where the usual condition of hypoprothrombinemia may be easily prevented by prenatal administration of the antihemorrhagic compounds. In this way it is possible to decrease the incidence of intracranial hemorrhage and other frequently fatal hemorrhagic conditions in the newborn.

Dr. Doisy has made important contributions to many other biochemical problems, including the origin of endogenous uric acid; determination of the inorganic components of the blood—sodium, potassium, chloride and phosphorus; blood buffers and carbon dioxide transport; preparation of insulin of high potency and its effect on blood composition, and formation of lactic acid in the muscles of depancreatectomized animals.

Vladimir N. Ipatieff, director of chemical research of the Universal Oil Products Company, Chicago, received the Willard Gibbs award in 1940. Previous medalists include: Svante Arrhenius, of Sweden; Mme. Marie Curie, of France; Sir James Irvine, of Scotland; Richard Willstaetter, of Munich, and from the United States Theodore W. Richards, Leo H. Baekeland, Ira Remsen, Arthur A. Noyes, Willis R. Whitney, Edward W. Morley, William H. Burton, William A. Noyes, F. G. Cottrell, Julius Stieglitz, Gilbert N. Lewis, Moses Gomberg, John Jacob Abel, William D. Harkins, Claude S. Hudson, Irving Langmuir, Phoebus A. Levene, Edward C. Franklin, Harold C. Urey, Charles A. Kraus, Roger Adams, Herbert N. McCoy, Donald Dexter Van Slyke and Robert R. Williams.

HONORARY DEGREES TO BE CONFERRED AT THE FIFTIETH ANNIVERSARY OF THE UNIVERSITY OF CHICAGO

THIRTY-TWO honorary degrees in the sciences and the humanities will be awarded at a special convocation of the University of Chicago on September 29, at the close of the four-day academic festival of the fiftieth anniversary celebration. The degrees to be conferred in the sciences follow:

Charles E. Allen, professor of botany, the University of Wisconsin, discoverer of sex chromosomes in plants.

Charles H. Best, professor and chairman of the physiology department at the University of Toronto, co-discoverer of insulin.

George D. Birkhoff, professor of mathematics at Harvard University, leading contributor to the fundamentals of dynamics.

Reginald A. Daly, professor of geology at Harvard University, authority on the origin of rocks and glaciers.

Edward A. Doisy, professor of biological chemistry at St. Louis University, noted for his identification of pure female hormone and two types of vitamin K.

Ernest W. Goodpasture, professor of pathology at Vanderbilt University, inventor of new methods of studying disease viruses.

Evarts A. Graham, professor of surgery at Washington University, St. Louis, nationally recognized for his contributions to the technique of modern surgery.

Libbie Hyman, member of the American Museum of Natural History in New York, noted for her contributions to the life processes of animals and internationally recognized as an authority on invertebrate zoology.

Herbert S. Jennings, professor emeritus of zoology at the Johns Hopkins University, authority on the behavior of simple forms of animal and plant life.

Karl S. Lashley, professor of neuropsychology at Harvard University, famous for his investigations of brain mechanisms.

Ernest O. Lawrence, professor of physics at the University of California, Nobel Laureate, inventor of the cyclotron, making possible sub-atomic chemistry.

Robert H. Lowie, professor of anthropology at the University of California, authority on the American Indian.

Robert A. Millikan, chairman of the executive council of the California Institute of Technology, Nobel Laureate, measurer of the electron and authority on cosmic rays.

Carlos A. Monge, dean and professor of medicine at the University of San Marcos, Lima, Peru, discoverer of "Monge's Disease," characteristic of the inhabitants of high altitudes.

Linus C. Pauling, professor and chairman of the department of chemistry at the California Institute of Technology, authority on forces between atoms in molecules and crystals.

Thomas M. Rivers, director of the Hospital of the Rockefeller Institute, international authority on the viruses of human and animal diseases.

Henry N. Russell, director of the Princeton Astronomical Observatory, discoverer of giant and dwarf stars and pioneer in the study of the evolution of the universe.

Florence B. Seibert, associate professor of physiological chemistry at the Henry Phipps Institute, Philadelphia, authority on the chemistry of tuberculin.

Donald D. Van Slyke, member of the Rockefeller Institute, inventor of new methods of chemical analysis used in the treatment of disease.

Oswald Veblen, professor of mathematics at Princeton University, internationally known for his contributions to geometry.

Robert R. Williams, director of chemistry at the Bell Telephone Laboratories in New York, discoverer of vitamin B_1.