membership. The following officers were elected for the coming year:

President—Dr. Mark F. Boyd, Rockefeller Research Laboratories, Tallahassee, Florida.

Vice-president—Dr. George W. McCoy, professor of preventive medicine and public health, Louisiana State University Medical Center, New Orleans, La.

Secretary and Assistant Treasurer—Dr. Ernest Carroll Faust, Department of Tropical Medicine, Tulane University of Louisiana, New Orleans, La.

Treasurer—Colonel T. T. Mackie, MC, AUS, Office of the Surgeon-General, Washington, D. C.

Councilor for a five-year term: Dr. R. E. Dyer, director of the National Institute of Health, Bethesda, Md.

THE NATIONAL ACADEMY OF SCIENCES

THE annual meeting of the National Academy of Sciences was held at the National Museum, Washington, on November 15 and 16.

The session on Wednesday afternoon was devoted to science as related to the war. Dr. Wilmot H. Bradley, chief geologist of the U. S. Geological Survey, spoke on "Geology as an Implement of War"; Dr. Francis W. Reichelderfer, chief of the U. S. Weather Bureau, on "Meteorology and the War," and Dr. Zay Jeffries, technical director of the Lamp Department at Cleveland of the General Electric Company, on "Metallurgy and the War." Major General G. M. Barnes, chief of the Research and Development Service of the Office of the Chief of Ordnance, took as his subject "American Science and Industry in War."

In the program for Thursday, November 16, the following papers were presented:

"Pressure Breathing: Certain Aspects of Its Military and Therapeutic Significance," by Commander J. Murray Steele, assistant research executive, Naval Medical Research Institute.

"The Physiological Basis of Engineering Advances in Military Aviation," by Dr. Detlev W. Bronk, professor of biophysics, University of Pennsylvania.

"The Anatomy and Physiology of the Airplane Cockpit," by Dr. Eugene F. DuBois, professor of physiology and biophysics, Cornell University Medical College.

"The Synthesis of Vitamins in the Intestinal Tract," by Dr. C. A. Elvehjem, professor of biochemistry, University of Wisconsin.

"The Deterioration of Equipment and Materials in the Tropics," by Dr. W. G. Hutchinson, assistant professor of botany, University of Pennsylvania.

"The Story of Penicillin," by Dr. Chester S. Keefer, director, Evans Memorial Hospital, Boston.

"The Treatment of Shock": a. "Some Physiological Aspects of Shock," by Dr. C. N. H. Long, Sterling professor of physiological chemistry, Yale University; b. "Clinical Aspects of Shock," Dr. John S. Lockwood, associate professor of surgery, Yale University.

"Research—the Key to Military Preventive Medicine," by Brigadier-General James S. Simmons, chief, Preventive Medicine Service, Office of the Surgeon-General.

"Control of Typhus," by Brigadier-General S. Bayne-Jones, deputy chief, Preventive Medicine Service, Office of the Surgeon-General.

MEDALS AWARDED BY THE ROYAL SOCIETY

THE Royal Society, London, has awarded the following medals for 1944:

The Copley Medal to Sir Geoffrey Taylor in recognition of his many contributions to aerodynamics, hydrodynamics and the structure of metals, which have had a profound influence on the advance of physical science and its applications.

The Rumford Medal to Dr. H. R. Ricardo in recognition of his important contributions to research on the internal combustion engine, which have greatly influenced the development of the various types.

The Davy Medal to Sir Robert Robertson in recognition of his researches on explosives, analytical methods, the internal structure of the diamond and infra-red absorption spectra.

The Darwin Medal to Dr. I. Stanley Gardner in recognition of his work on coral reefs and on the organisms associated with such habitats.

The Hughes Medal to Professor G. I. Finch in recognition of his fundamental contributions to the study of the structure and properties of surfaces; and for his important work on the electrical ignition of gases.

AWARD OF THE WALTER REED MEDAL

THE Walter Reed Medal was presented to Brigadier-General James Stevens Simmons, U.S.A., chief of the Preventive Medicine Service, Office of the Surgeon General, U. S. Army, in recognition of meritorious achievement in tropical medicine, and for outstanding work in safeguarding the health of American troops, at the annual meeting of the American Society of Tropical Medicine at St. Louis, Missouri, on November 15.

The Walter Reed Medal was established by the society in 1934 to be awarded periodically in recognition of meritorious achievement in tropical medicine by an individual or an institution. The medal "cast in bronze" has been awarded on four previous occasions. In 1936, one medal was awarded posthumously to Major Walter Reed for his experimental work on yellow fever and another to the Rockefeller Foundation for its study and control of yellow fever. In 1939 the award was made to Dr. William B. Castle, of Harvard University, and in 1940 to Dr. Herbert Clark, of the Gorgas Memorial Laboratory in Panama. In 1942 two medals were awarded, one posthumously to Dr. Carlos J. Finlay for his work on yellow fever and the other to The United States of Brazil "for outstanding

work in the eradication of *Anopheles gambiae* in Brazil."

At this meeting General Simmons was chosen president-elect of the American Society of Tropical Medicine.

AWARD OF THE PERKIN MEDAL

THE Perkin Medal for 1944 of the American Section of the Society of Chemical Industry has been awarded to Dr. Elmer K. Bolton, of Wilmington, Del., chemical director of E. I. du Pont de Nemours and Company.

Presentation of the medal, conferred annually for outstanding achievement in industrial research, will be made on the evening of January 5, at a joint meeting, held at the Hotel Commodore, New York City, of the Society of Chemical Industry, the American Chemical Society, the American Institute of Chemical Engineers, the Electrochemical Society and the Société de Chimie Industrielle.

According to the citation, the medal is conferred on Dr. Bolton in recognition of

leadership in the synthesis of the first general purpose synthetic rubber to be developed either in this country or abroad, and for his direction of nylon research.

His undertaking in 1925 of a search for a practical synthetic rubber, in spite of previous repeated failures, emphasizes his vision and boldness as a research director. Through his persistent stimulation and guidance, this search culminated in the commercial manufacture of chloroprene synthetic rubber, commonly known as neoprene, which to-day is a key product in the national synthetic rubber program.

A broad program to explore the fundamentals of polymerization phenomena was undertaken by the chemical department of the du Pont Company in 1928 under the late Dr. Wallace H. Carothers. In the course of these studies synthetic polyamides were discovered, and under Dr. Bolton's direction the development of nylon as a new and revolutionary commercial textile fiber was brought to successful fruition.

Dr. Bolton is the thirty-ninth recipient of the Perkin Medal, which was founded in honor of Sir William Henry Perkin, whose experiments led to his discovery of aniline dyes and the foundation of the aniline dye industry. He joined the staff of the du Pont Company at the Wilmington Experiment Station in 1915. In 1916, he was placed in charge of a group of chemists to study the preparation of synthetic dyes, for which America was at that time largely dependent upon Germany. Dr. Bolton became director of the chemical section of the du Pont dyestuffs department in 1921, assistant chemical director of the du Pont Company in 1929, and chemical director in 1930.

SCIENTIFIC NOTES AND NEWS

THE doctorate of laws was conferred on Dr. Robert A. Millikan, chairman of the executive council of the California Institute of Technology, on November 20 on the occasion of the annual Achievement Day celebration of William Jewell College, at which he made the principal address.

THE degree of doctor of laws was conferred on Dr. Robert Chambers, of New York University, by Queens University, Kingston, Canada, his alma mater, at the October convocation of the university.

COLONEL LEONARD G. ROWNTREE, director of the Philadelphia Institute for Medical Research, chief of the medical division of the National Headquarters Selective Service System, has received the scroll of honor of the New York State Committee on Physical Fitness, in recognition of his "interest, understanding and efforts in behalf of the physical fitness of a nation at war and the welfare of the youth of the future."

THE Medal for the Advancement of Research of the American Society of Metals has been awarded to Robert Crooks Stanley, chairman and president of the International Nickel Company of Canada, in recognition of "pioneering leadership in the field of metals research." The Henry Marion Howe Medal for the best paper to appear in the *Transactions* of the society was presented at the annual dinner of the society to Earnshaw Cook, chief metallurgist; J. A. Fellows, assistant chief metallurgist, and R. A. Flinn, assistant metallurgist, all members of the staff of the metallurgical laboratory at Mahwah, N. J., of the American Brake Shoe Company. The paper described a quantitative study of the transformation reaction of steel from high to low temperatures in heat-treating practices.

AT the eighty-sixth commencement exercises on September 28 of the Long Island College of Medicine, the first alumni medal for distinguished service to American medicine was presented to Dr. Robert L. Dickinson, gynecologist, who graduated from the college in the class of 1882.

THE Captain Joseph H. Linnard Prize of the Society of Naval Architects and Marine Engineers was presented at the fifty-second annual banquet of the society to Professor C. Richard Soderberg, professor of mechanical engineering at the Massachusetts Institute of Technology, and to Ronald B. Smith, director of research and development of the Elliott Company, Jeannette, Pa., on November 17. The award was presented jointly for a paper entitled "The Gas Turbine as a Possible Marine Prime Mover," selected as