chemist of the School of Tropical Medicine, Puerto Rico, and Dr. Charles O. Lee, professor of pharmacy at Purdue University.

The objectives of the new institute, as given in an official statement issued by Dr. Uhl, are:

To aid in the collection, selection, arrangement and exhibition of pharmaceutico-historical material and to catalogue and inventory this material;

To give the research worker in the field of historical pharmacy the possibility to discuss his projects, to get advice on literature and to publish the manuscripts concerned;

To furnish information and means for historical instructions at the colleges of pharmacy;

To furnish material for popular pharmaceutico-historical information directly to the general public or to individual pharmacists for use in their social and professional relations;

To cooperate with the historians of the related sciences and professions, especially of medicine, in order to promote the mutual scientific, professional and social progress and understanding derived from such cooperation.

NATIONAL SCIENCE FUND OF THE NATIONAL ACADEMY OF SCIENCES

ORGANIZATION of the National Science Fund, a new foundation to receive and administer gifts for the advancement of science, was announced on April 29 by Dr. Frank B. Jewett, president of the National Academy of Sciences, during the second day's program of the annual meeting of the academy. The National Science Fund will be directed by a joint board made up of scientists selected from the academy membership and distinguished laymen, and is designed to permit donors who wish to promote human welfare through support of scientific research to take advantage of the facilities of the academy and of its agency, the National Research Council. The twelve lay members of the first board of directors are:

Winthrop W. Aldrich, New York City
James F. Bell, Minneapolis
John W. Davis, New York City
Homer L. Ferguson, Newport News, Virginia
Walter S. Gifford, New York City
Carlton J. H. Hayes, New York City
Archibald MacLeish, Washington, D. C.
Harvey S. Mudd, Los Angeles
Elihu Root, Jr., New York City
Tom K. Smith, St. Louis
Lewis L. Strauss, New York City
Harold H. Swift, Chicago

The academy appointed twenty scientific men from its own membership to serve as directors, and designated Dr. William J. Robbins, director of the New York Botanical Garden, as acting chairman of the board. The scientific directors appointed by the academy are:

Dr. Roger Adams, professor of chemistry, University of Illinois.

Dr. James R. Angell, formerly president of Yale University, now educational director of the National Broadcasting Company.

Dr. A. F. Blakeslee, director of the department of genetics of the Carnegie Institution of Washington, Cold Spring Harbor, Long Island, N. Y.

Dr. Isaiah Bowman, president of the Johns Hopkins University.

Dr. Arthur H. Compton, Charles H. Swift distinguished service professor of physics, University of Chicago.

Dr. James B. Conant, president of Harvard University.

Dr. Edwin G. Conklin, emeritus professor of biology, Princeton University.

Dr. Luther Pfahler Eisenhart, professor of mathematics and dean of the Graduate School, Princeton University.

Dr. Herbert S. Gasser, director of the Rockefeller Institute for Medical Research.

Dr. Herbert C. Hoover.

Dr. Ernest O. Lawrence, professor of physics and director of the Radiation Laboratory, University of California at Berkeley.

Dr. Frank R. Lillie, professor of embryology emeritus, University of Chicago.

Dr. Robert A. Millikan, director, Norman Bridge Laboratory of Physics and chairman of the executive council of the California Institute of Technology.

Dr. Alfred N. Richards, professor of pharmacology, University of Pennsylvania.

Dr. William J. Robbins, director of the New York Botanical Garden.

Dr. Harlow Shapley, director of Harvard College Observatory and Paine professor of astronomy, Harvard University.

Dr. George H. Whipple, professor of pathology and dean of the School of Medicine and Dentistry of the University of Rochester.

Ex Officio: Dr. Frank B. Jewett, president of the National Academy of Sciences, New York City; Professor Ross G. Harrison, chairman of the National Research Council, Yale University; Dr. Irving Langmuir, president, American Association for the Advancement of Science, General Electric Company, Schenectady, N. Y.

The National Science Fund has been organized as the result of a three-year study of the present sources of financial support for fundamental research in science. Under the chairmanship of Dr. Albert F. Blakeslee, a committee of the academy with the aid of a grant from the Carnegie Corporation of New York recently completed a survey showing the need to develop additional funds for scientific research. The committee found that universities and foundations which in the past have been a main support of fundamental scientific research are finding it increasingly difficult to provide the necessary funds. Decreased earnings on endowments are steadily making their task harder. Although expenditures for scientific research by industry and by government have increased greatly

in recent years, this expansion has not covered, nor can it hope to cover adequately the fields of fundamental research which have derived support largely from other sources.

Dr. Jewett, in his announcement, pointed out that the National Academy of Sciences has a Congressional charter and thereby bears important public responsibilities. He said that as the welfare of science and the welfare of the nation are more and more intimately associated, the academy because of its prominent position in American science must assume leadership in preserving and advancing science in the Western Hemisphere. To this end, Dr. Jewett expressed the hope that the fund would establish a noteworthy reputation and in the future would attract gifts, both large and small, from people in all walks of life who wished to make public benefactions.

PRESENTATION OF THE HENRY DRAPER MEDAL OF THE NATIONAL ACADEMY OF SCIENCES TO DR. ROBERT WILLIAMS WOOD

THE Henry Draper Medal of the National Academy of Sciences was presented to Dr. Robert Williams Wood, research professor of experimental physics at the Johns Hopkins University, at the annual dinner of the academy on April 29, "in recognition of his contributions to astronomical physics."

A brief citation of the reasons for the award was given by Dr. Otto Struve, a member of the committee of the Henry Draper Fund, which made the recommendation, and the presentation was made by the president of the academy, Dr. Frank B. Jewett. Dr. Wood presented a paper before the academy entitled "Diffraction Gratings and Replicas for Astrophysical Research," an abstract of which appears in this issue of SCIENCE. The citation given by Dr. Struve follows:

By unanimous vote of the committee on the Henry Draper Fund of the National Academy of Sciences has recommended the award of the Draper Medal for distinguished contributions to physical astronomy to Dr. Robert Williams Wood, professor emeritus of experimental physics at the Johns Hopkins University. Professor Wood's contributions in the field of physics have been so many and varied, and so fruitful in their applications that no word at this time could add to the wealth of recognition which they have received.

In the field of astrophysics three important researches, among many others, stand out especially. The first is Wood's pioneer work on resonance radiation and its applications to solar and stellar spectroscopy. A second is his development and skilful use of absorption screens of many types for astronomical and spectroscopic photography. Finally, and perhaps more important of all for the future of astrophysics, are the remarkable advances he has made in the construction of diffraction gratings. Where the use of the grating to produce a spectrum has been limited almost wholly to the sun and to bright sources in the physical laboratory, Wood through selection and shaping of the point of his ruling diamond has succeeded in throwing as much as one half of the incident light into a chosen order of the spectrum. In addition he was the first to achieve excellent results in ruling gratings on films of aluminum evaporated on glass. As a result a modern Wood grating with high concentration of light is one of the most effective instruments of research in stellar spectroscopy. It has made possible the analysis of the spectra of the brighter stars on a large scale, has opened up the almost unexplored ultra-violet region of stellar spectra, and has already led to discoveries of interest regarding the constitution of the gases in interstellar space.

The capacity to develop valuable new methods and new instruments, the widening application of which no one can adequately foresee, is given to but relatively few men. Our medallist of to-day is certainly to be numbered within this chosen group.

ELECTIONS OF THE NATIONAL ACADEMY OF SCIENCES

ELECTIONS at the spring meeting of the National Academy of Sciences held in Washington on April 30 are:

Vice-president (for a term of four years): Dr. Isaiah Bowman, president of the Johns Hopkins University, to succeed Dr. Arthur L. Day, whose term expires on June 30.

Members of the Council (for a term of three years): Dr. S. A. Mitchell, Leander McCormick Observatory, University, Virginia, to succeed himself; Dr. E. B. Fred, University of Wisconsin, to succeed Dr. E. D. Merrill.

New Foreign Associates: Dr. Edgar Douglas Adrian, professor of physiology, University of Cambridge, and fellow of Trinity College; Dr. Archibald Vivian Hill, honorary professor of physiology at University College, London, and Foulerton research professor and secretary of the Royal Society, London; Sir Arthur Keith, Buckston Browne Farm, Downe, England.

New Members: Werner Emmanuel Bachmann, professor of organic chemistry, University of Michigan; René Jules Dubos, associate member of the Rockefeller Institute for Medical Research, New York City; Evarts Ambrose Graham, professor of surgery, Washington University, and chief surgeon, Barnes and St. Louis Children's Hospital; Arthur Scott King, superintendent of the physical laboratory, Mount Wilson Observatory; Charles Christian Lauritsen, professor of physics, California Institute of Technology, Pasadena; Alfred Lee Loomis, director, the Loomis Laboratories, Tuxedo Park, New York; J. Robert Oppenheimer, professor of physics, University of California, and California Institute of Technology; John Thomas Patterson, professor of zoology, University of Texas; Karl Sax, professor of botany, Harvard Univer-