ever situated, as may be approved by the Board of Directors."

In accordance with Dr. Walker's wishes the Finney-Howell Research Foundation has been duly incorporated under the laws of the State of Maryland, and the board of directors announce that they are prepared to award fellowships under the following regulations:

1. Fellowships carrying an annual stipend of $2,000 will be awarded each year at the annual meeting of the Board of Directors on the second Wednesday of March, beginning March, 1938. These fellowships will be awarded for a period of one year with the possibility of renewal up to three years.

2. When deemed necessary by the Board of Directors special grants of limited sums may be made to support the work carried on under a fellowship.

3. Applications must be on file at the office of the Secretary of the Foundation, Dr. William A. Fisher, Medical and Chirurgical Faculty Building, 1211 Cathedral Street, Baltimore, Maryland, on or before the first day of February.

4. Applications should be made upon blank forms which will be furnished by the secretary or by any member of the Board of Directors.

5. It is expected that at the end of his tenure each fellow will submit to the Board of Directors a summary of the results of his investigations.

The foundation is called the Finney-Howell Research Foundation, in honor of Dr. J. M. T. Finney, emeritus professor of surgery at the Johns Hopkins University, and Dr. William H. Howell, emeritus professor of physiology.

Members of the board of scientific directors are: Dr. Philip Bard, Dr. Curtis F. Burnam, Dr. John M. T. Finney, Dr. William A. Fisher, Dr. Wade Hampton Frost, Dr. William H. Howell and Dr. Warren Lewis, of Baltimore; Dr. Evarts A. Graham, of St. Louis; Professor E. L. Kenneway, of London; Dr. Jonathan C. Meakins, of Montreal, and Dr. Florence Sabin, of New York.

AWARD OF THE ROEBLING MEDAL OF THE MINERALOGICAL SOCIETY OF AMERICA TO DR. PALACHE

THE award of the Roebling Medal was authorized by the Mineralogical Society of America at the last annual meeting in Cincinnati, Ohio, in December, 1936. The medal is to be awarded for "meritorious achievement in mineralogy and allied sciences." It has been named in honor of the late Colonel Washington A. Roebling, of Trenton, N. J. Colonel Roebling was by profession an engineer, and in connection with his father, John A. Roebling, constructed many famous bridges throughout the country. However, his chief interest outside of his profession was mineralogy and he maintained an intense delight in it throughout his life. He built up one of the most complete private collections in the United States, and was so well acquainted with his specimens that, although he collected some 16,000 different mineral specimens, he was able to identify and describe them on occasion. His interest was not limited to the mere collection of rare specimens, but included the recent literature regarding them, and he often furnished specimens for research and analysis. His collection now forms part of the famous mineral display in the United States National Museum at Washington, D. C.

Colonel Roebling was a charter member of the Mineralogical Society and vice-president in 1924. His desire to see the society grow and enlarge was ever foremost in his mind, and led him to create an endowment fund to provide a wider scope in the publication of the journal of the society, the *American Mineralogist*. The medal bears the name of this distinguished patron of mineralogy in recognition of this service.

At its annual luncheon at the Hotel Washington, in connection with the annual meeting of the Mineralogical Society of America being held in Washington, D. C., from December 28 to 30, the society will present the Roebling Medal for the first time. Dr. Norman L. Bowen, president of the Mineralogical Society of America, professor of petrography at the University of Chicago, and a well-known authority on chemical mineralogy, will preside.

Dr. Edward H. Kraus, dean of the College of Letters and Science of the University of Michigan, formerly head of the department of mineralogy at that institution and one of the leading mineralogists in the United States, will present the Roebling Medal on behalf of the society to Professor Charles Palache, chairman of the department of mineralogy of Harvard University. The award is made in recognition of his outstanding contributions to the science of mineralogy.

Professor Palache has been generally recognized as the leading crystallographer in the United States. Chiefly through his crystallographic work, he has been instrumental in the determination of thirteen new mineral species recognized for the first time through his efforts.

One of Professor Palache's main contributions to mineralogy has been the description of minerals from Franklin, N. J., a mineralogically famous and industrially important zinc deposit. A large number of rare minerals has been found in the Franklin mines. In all, 160 different mineral species have been identified from this locality. No little part of this work has been accomplished by Professor Palache.

Apart from his numerous contributions in the field of pure science, Professor Palache has gained an

enviable reputation as a teacher, with a knack for arousing and sustaining the interest of his students. His ability to present the facts learned from his own researches has led students of mineralogy from many parts of the country to study with him.

PAUL F. KERR, *Secretary,*
Mineralogical Society of America

THE CHANDLER MEDAL AND LECTURE

THE Chandler Medal was presented to Dr. John Howard Northrop, member of the Rockefeller Institute for Medical Research, at Columbia University on October 27, and Dr. Northrop gave the lecture that is printed in the present issue of SCIENCE. Dean George H. Pegram, of Columbia University, introduced the Chandler medallist and lecturer in the following words:

This year the Chandler lecture carries added distinction as one of the events in celebration of the hundredth anniversary of the birth of Charles Frederick Chandler. Provision for the Chandler medal and the lecture by the medallist was the method chosen by friends of Professor Chandler to mark their admiration and affection for him by permanent provision for honoring those accomplishments in the wide field of chemistry that Chandler himself would most have praised and honored. Chandler took no narrow view of chemistry or the range of its services. He used jokingly to argue that whatever relates to anything composed of the chemical elements is properly chemistry, and there were those of us who believed that in his heart he was not joking. The growing list of Chandler medallists well reflects this Chandler breadth of view.

Since the presentation of the first medal to Professor Chandler in 1910, the recipients and the titles of their lectures have been as follows:

1914, Leo H. Baekeland, Some Aspects of Industrial Chemistry.
1916, W. F. Hillebrand, Our Analytical Chemistry and Its Future.
1920, Willis R. Whitney, The Littlest Things in Chemistry.
1921, Frederick G. Hopkins, Newer Aspects of the Nutrition Problem.
1922, Edgar F. Smith, Samuel Latham Mitchill—A Father in American Chemistry.
1923, Robert E. Swain, Atmospheric Pollution by Industrial Wastes.
1925, Edward C. Kendall, Influence of the Thyroid Gland on Oxidation in Animal Organism.
1926, Samuel W. Parr, The Constitution of Coal—Having Special Reference to the Problems of Carbonization.
1927, Moses Gomberg, Radicals in Chemistry, Past and Present.
1928, John Arthur Wilson, Chemistry and Leather.
1929, Irving Langmuir, Electrochemical Interactions of Tungsten, Thorium, Caesium and Oxygen.
1931, James B. Conant, Equilibria and Rates of Some Organic Reactions.
1932, George O. Curme, Jr., Synthetic Organic Chemistry in Industry.
1934, Jacob G. Lipman, The Stuff of Life.
1936, William F. Giauque, Temperatures Below 1° Absolute.

At the conclusion of the lecture Dean Pegram made the presentation of the medal and spoke as follows:

The Chandler lecturer of this centenary celebration will tell us of the aims, methods and significance of his researches in a region of discovery, into which he has opened trails and roads, on which others are welcomed and helped by him in further developments of the fertile fields of the complex protein molecules, that connect so directly with the processes that go on in living organisms.

It is with much pleasure and satisfaction that I introduce to you the Chandler medallist and lecturer of 1937, John Howard Northrop, member of the Rockefeller Institute for Medical Research. He will discuss for us the chemical nature and mode of formation of pepsin, trypsin and bacteriophage.

On the recommendation of the standing committee of faculty members on the Chandler medal, the Chandler medal for 1937 has been awarded by the trustees of Columbia University to John Howard Northrop in approbation of his successful and stimulating researches, notably various studies on fermentation, some leading to applications in the production of the useful solvents, acetone and ethyl alcohol, and more especially the isolation in purified and crystalline form of the digestive enzymes, pepsin and trypsin, and the parent proteins, or pro-ferments, from which pepsin and trypsin are formed, and his work on the kinetics of the destruction of bacteria by bacteriophage, on the conditions governing the production of bacteriophage, and his purification of a certain bacteriophage; a succession of researches which have opened up the way for himself and for others to reach a much clearer and more definite understanding of the properties of the complex protein molecules recognized as enzymes or pro-ferments or viruses, which play such an important part in the chemical reactions that go on in the processes of living organisms.

It is especially appropriate that on this Chandler centenary the recipient of the Chandler medal should be one of Professor Chandler's own students, one of his "boys," one whose father before him was one of Chandler's "boys" and later a member of the staff of the university; that he should be the great grandson of the man in whose memory the Columbia chemical laboratory, Havemeyer Hall, was given to the university; that he should be the recipient of four degrees, A.B. 1912, M.A. 1913, Ph.D. 1915, Hon. D.Sc. 1937, from Columbia; that he should once have been a Cutting fellow, and that he should already have been awarded the Stevens prize of our medical college.

The ties with Professor Chandler himself are strong with you, sir. I have the happy privilege of making them still more strong on this occasion by asking that this Charles Frederick Chandler medal of 1937 be placed in your hands by the one who stood closest to him, Mrs. Chandler herself.