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.