

PRESENTATION OF THE ROEBLING MEDAL TO
FREDERICK EUGENE WRIGHT

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Twenty-three years ago, in 1929, I suggested at the annual meeting of the Society that awards, either medals or prizes, be established to recognize noteworthy achievement in the sciences represented by the Society. It was not until 1936 that the Council authorized the designing of a medal and voted that it be called the Washington A. Roebling Medal. The first award was made in 1937 to Charles Palache. Thus far, the medal has been awarded ten times. Our universities are represented by three recipients, the United States Geological Survey and the Geophysical Laboratory by two each, Great Britain by two, and Switzerland by one. Today the medal is to be awarded to one who for more than a half century has been an active contributor to the advancement of the sciences represented by our Society. He has also been active in related fields and has long had an international reputation as a distinguished scientist.

Frederick Eugene Wright was born at Marquette, Michigan, October 16, 1877, where his father was stationed as state geologist. The elder Wright was well trained in mineralogy and geology for he had studied these subjects in Germany and Sweden. He was one of the first in this country to prepare thin sections of rocks. Unfortunately he died at an early age in 1888. Shortly after his death Mrs. Wright with her three sons moved to Ann Arbor, Michigan. Fred, as he is affectionately known, attended the public schools and was graduated from the Ann Arbor High School in 1895. The family then moved to Germany where Fred, the oldest of the three boys, was a student at the Realgymnasium at Weimar for one year. In 1896 he enrolled at the University of Heidelberg where, following in the footsteps of his father, he pursued intensive studies in mineralogy, petrology, and geology, as well as in chemistry, physics, and mathematics under the direction of such distinguished scientists as Harry Rosenbusch, Victor Goldschmidt, Wilhelm Salomon, Adolph Sauer, Viktor Meyer, P. Lenard, G. Quincke, L. Koenigsberger, and others. In December 1900 the degree of doctor of philosophy (*summa cum laude*) was awarded to him at the age of 23. It is of interest to note that while in Heidelberg Dr. Wright spent a period in the shop of the well-known instrument maker Peter Stöe. This experience later proved very helpful in developing the various optical instruments and accessories with which the name of F. E. Wright has long been associated.

After his return to the United States Dr. Wright served as instructor

in petrology at the Michigan College of Mines (now the Michigan Institute of Mining and Technology) at Houghton, from 1901 to 1904, and for one year he was also assistant geologist on the Michigan Survey. He then became associated with the United States Geological Survey. In 1906 he was appointed as petrologist to the Geophysical Laboratory, which had recently been established, where he served until retirement in 1944. He was one of the early members of the staff of the laboratory.

Dr. Wright's bibliography includes over 140 papers dealing directly with mineralogical and petrological subjects. Time does not permit a detailed review of these papers; suffice it to say that they include the classical articles on Quartz as a Geologic Thermometer with E. S. Larsen, the designing of an improved petrographic microscope and of many testplates and accessories, as well as numerous studies on the optical properties of various minerals and synthetic products. The publication in 1911 of his authoritative *Methods of Petrographic-Microscopic Research: Their Accuracy and Range of Application* did much to stimulate the use of the petrographic microscope in this country. Indeed the present wide use of the petrographic microscope in research not only in our sciences but also in related fields, is due in large measure to Dr. Wright's early and persistent advocacy of its value. He was a pioneer in this country in crystal optics and the application of polarizing microscopic methods.

In addition to this long list of papers, Dr. Wright made important contributions during World War I to the development and manufacture of optical glass in this country, which previously had to be imported from Europe. These studies were sponsored by the Ordnance Department and resulted in the publication in 1921 of the book entitled *The Manufacture of Optical Glass and of Optical Systems*. For these services he attained the rank of Colonel in the Ordnance Reserve Corps. Due to his expert knowledge in this field he served during World War II as Civilian Adviser to the Joint Optics Committee of the Army and Navy Munitions Board and received from the Army the *Gold Medal for Exceptional Civilian Services*.

Reference must also be made to Dr. Wright's researches and activities as Chairman of the Committee on the Study of the Surface Features of the Moon. These studies, which he began in 1924 and continued until 1939, were made at the Mt. Wilson Observatory. The results are recorded in the annual reports of the Committee in the Year Book of the Carnegie Institution of Washington.

Dr. Wright is a member or fellow of many scientific societies in this country and abroad, which include the National Academy of Sciences, the Mineralogical and Optical Societies of America of which he is a past president, and the Geological Society of America. In 1941 the honorary

degree of Doctor of Science was conferred upon him by the University of Michigan.

Mr. President: It is indeed a high privilege to present Frederick Eugene Wright as the recipient of the Washington A. Roebling Medal. In making this award both Dr. Wright and the Society are being honored.

ACCEPTANCE OF THE ROEBLING MEDAL OF THE MINERALOGICAL SOCIETY OF AMERICA

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It gives me real pleasure to receive the Roebling Medal of the Mineralogical Society of America and to realize that award was made on the basis of the recommendation by its Council.

You have heard from Doctor Kraus that, many years ago, he proposed to the Mineralogical Society that it should establish a Medal to be awarded in recognition of work done in the field of minerals. Our Society owes much to him for his interest and participation in its affairs over the years; as one of the recipients of the Medal, I am grateful to him for his proposal. In his Presentation Address he mentioned many details of my own efforts; I marvel at his aptitude for digging out events in my life that had long since passed down memory's flow and been forgotten. This is in keeping with his reputation, the world over, for accuracy of statement and for reliability.

For me it is a special honor to receive a Medal named after the builders of the Brooklyn Suspension Bridge. Both father and son were remarkable men and civil engineers of the highest grade. The father, John A. Roebling, died in 1869; he had then received the contract to build the bridge; but actual construction had not been started at the time of his death which was the result of a serious injury incurred during a survey of the work to be done. He had designed the bridge; the drawings had been completed as far as was possible at that stage. It fell to the son to build the bridge. This he did, although he became seriously ill with caisson disease (bends) contracted in the course of his work. He had, in consequence, to direct the construction from his bedroom. In this effort he was aided by his wife, Emily Warren Roebling, who served as liaison between him and his engineering staff. The bridge has stood the test of time. It has recently been modified, to meet modern demands, by D. B. Steinman, a distinguished builder of bridges, whose book on the Roebling family and its accomplishments has been an inspiration to many of us. It was the son, Washington A. Roebling, who constructed the bridge and who gave a sum of money to the Mineralogical Society; part of this