MEMORIAL OF FREDERICK EUGENE WRIGHT

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Fred(erick) E(ugene) Wright, a fellow and a past-president of the Mineralogical Society of America, passed away at his summer home on Sagastaweka Island, in the Thousand Islands near Gananoque, Ontario, on August 25, 1953. He will be missed by his many friends in mineralogy, geology, optics, astronomy, and in the army. His has been a brilliant scientific career with wide interests and many accomplishments.

Dr. Wright was born at Marquette, Michigan, October 16, 1877, where his father was stationed as State Geologist. The elder Wright had received training in mineralogy and geology in Germany and Sweden (1869–71) and was one of the first in this country to prepare thin sections of rocks. He made extensive contributions to the Pre-Cambrian geology of the Lake Superior region. The elder Wright died at an early age in 1888, and shortly after his death Mrs. Wright with her three sons moved to Ann Arbor, Michigan, where Fred Wright attended the public schools and was graduated from 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 undertook 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. He was awarded the degree of Doctor of Philosophy (*summa cum laude*) in December 1900, at the age of twenty-three. While at Heidelberg, Dr. Wright spent one Easter vacation in the shop of Peter Stöe, an outstanding instrument maker who did work for Professor Goldschmidt, including production of two-circle goniometers. This experience with Stöe proved very helpful later 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 was instructor in petrology at the Michigan College of Mines (now the Michigan Institute of Mining and Technology) at Houghton, from 1901 to 1904. He then became associated with the U. S. Geological Survey for two years. In 1906 he was appointed as Petrologist at the newly established Geophysical Laboratory of the Carnegie Institution of Washington where he served with distinction for thirty-eight years until his retirement at the age of sixty-seven years in 1944.

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At the Geophysical Laboratory he developed optical methods for the identification of crystalline phases in artificial silicate melts and his publication of *The Methods of Petrographic-Microscopic Research: Their Relative Accuracy and Range of Application* (Carnegie Institution of Washington Publication No. 158, 204 pp., 1911) did much to stimulate the use of petrographic methods in mineralogy, geology, and chemistry. The paper *The Ternary System* $CaO—Al_2O_3—SiO_2$ by G. A. Rankin, with optical study by F. E. Wright (*Amer. Jour. Sci.*, 4th ser., **39**, 1–79, 1915) is a classic and, besides its wide application to mineralogy and geology, it provided a basis for the development of Portland cement.

As Chairman of the Carnegie Institution's Committee on the Study of the Surface Features of the Moon, Dr. Wright spent many summers in residence at Mt. Wilson Observatory between 1924 and 1939. The results were recorded in the Year Book of the Carnegie Institution of Washington. His measurements on the polarization of light from materials on the moon's surface were the first to indicate the kinds of materials found there.

During the first World War, while serving as a Major in the Ordnance Department of the Army, he contributed extensively to the development of American production of optical glass. In World War II he served as Civilian Adviser to the Joint Optics Committee of the Army and Navy Munitions Board. He helped establish an effective expansion program for the production of critically needed optical glass for urgent military needs. For this fine work the Army awarded him the Gold Medal for Exceptional Service. His many friends in the Army will long remember Colonel F. E. Wright.

Dr. Wright was a member of many scientific societies both here and abroad. These include the Petrologists' Club of Washington, Philosophical Society of Washington, Geological Society of Washington (President, 1924), American Academy of Arts and Sciences, American Philosophical Society, American Physical Society, Geological Society of America (Vice President, 1924), Mineralogical Society of America (President, 1941), Optical Society of America (President, 1918–20), and National Academy of Sciences (elected in 1923, served on numerous important committees, was Vice President from 1927 through 1931, and for twenty years was Home Secretary). He was a foreign fellow of the Geological Society (London) and a member of the Mineralogical Society (London) and the Physical Society (London). One of the last honors he received was the Roebling Medal of the Mineralogical Society of America in 1952.

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