

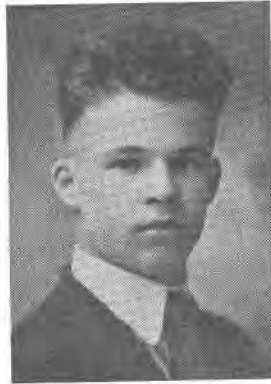
MEMORIAL OF EDWARD FULLER HOLDEN*

EDWARD H. KRAUS, *University of Michigan*

While on a vacation trip with his family, parents, and friends, Edward Fuller Holden was drowned at North Deer Isle, Maine, August 5, 1925. In the tragic death of Dr. Holden the Department of Mineralogy of the University of Michigan lost a valuable member of its staff and the science of mineralogy an energetic investigator with unusual promise for splendid achievement. Dr. Holden is survived by his widow, Beatrice M. Holden, and three small sons.

Edward Fuller Holden was born at Woonsocket, Rhode Island, August 28, 1901, where his father, Amasa Amidon Holden, was principal of the high school. His mother, Mary Barnes Holden, is a direct descendant of Edward Fuller of the Mayflower group. Dr. Holden's early training was obtained in the schools of Woonsocket, and of York, Pennsylvania, where the family removed in 1913. After completing the high school course in the latter city, Dr. Holden entered the Pennsylvania State College in January, 1918, where he enrolled as a student of mining engineering. His unbounded energy and exceptional ability as a student permitted him to complete the high school and college courses in seven years. He received the degree of bachelor of science from the Pennsylvania State College in 1921. His advanced degrees were conferred by the University of Michigan, the degree of master of science in 1923 and that of doctor of philosophy in 1925.

At an early age Dr. Holden evidenced great interest in minerals which was stimulated by a course in general science pursued in the eighth grade. Throughout his high school course this enthusiasm developed to such an extent that before entering college he submitted for publication in *THE AMERICAN MINERALOGIST* a short paper on the occurrence of quartz crystals. As an undergraduate

EDWARD FULLER HOLDEN
1901—1925

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student Dr. Holden decided upon a career in mineralogy and accordingly chose his studies with that goal in view. His ability as an investigator now began to manifest itself, and by the time he received the baccalaureate degree he had prepared six papers on mineralogical topics which appeared in *THE AMERICAN MINERALOGIST*. From the autumn of 1921 until his death Dr. Holden held the position of instructor in mineralogy in the University of Michigan and during this period earned his graduate degrees.

While a student at the Pennsylvania State College Dr. Holden became interested in the cause of color in minerals, and to this problem he devoted much of his time at the University of Michigan, making notable contributions to its solution. His papers on the cause of color in rose quartz, smoky quartz, and amethyst established a new standard for publications in this field. Dr. Holden's thorough training in the various phases of mineralogy, and in chemistry and physics, permitted him to approach this problem from several standpoints as had not been the case with many of the earlier investigators of this subject. His paper on the pigmentation of amethyst was awarded the Walker prize for 1925 by the Boston Society of Natural History and was adjudged as being of unusual merit. Had Dr. Holden been spared to continue his researches he would have undoubtedly contributed much toward clarifying the perplexing problem of the cause of color in minerals. At the time of his death Dr. Holden had published sixteen papers and in addition had collaborated with the writer in the preparation of a textbook on *Gems and Gem Materials* which was published shortly after his death.

In 1921 Dr. Holden began abstracting papers on mineralogical and geological subjects for *Chemical Abstracts* and in 1922 became associate editor of that division of the journal. He also contributed numerous abstracts to *THE AMERICAN MINERALOGIST* and the *REVUE DE GEOLOGIE*. In all he prepared over twelve hundred abstracts for these publications, in addition to several book reviews. In 1923 he was also appointed associate editor of *THE AMERICAN MINERALOGIST*.

Dr. Holden attended the organization meeting of the Mineralogical Society of America in December, 1919, and became a charter member. In 1922 he was elected to fellowship in the Society. He was also a fellow of the American Association for the Advancement of Science and a member of the Michigan Academy of

Science, Arts and Letters and of the Junior Research Club of the University of Michigan. He also held membership in the Tau Beta Pi, Phi Kappa Phi, and Sigma Xi fraternities.

The intense scholarly activity and splendid scientific achievement of this short life of twenty-four years will remain an exceptional record in the history of American mineralogy.

BIBLIOGRAPHY OF EDWARD F. HOLDEN

1. Notes on an Occurrence of Quartz Crystals. *Am. Mineral.*, **2**, 81, (1917).
2. Famous Mineral Localities: Beryl Mountain, Acworth, N. H. *Am. Mineral.*, **3**, 199-200, (1918).
3. Limonite Pseudomorphs after Pyrite from York County, Pennsylvania. *Am. Mineral.*, **4**, 68-69, (1919).
4. An American Occurrence of Sarcopside. *Am. Mineral.*, **4**, 99-102, (1920).
5. A Calcium Phosphate with Ratios between those of Triplite and Sarcopside. *Am. Mineral.*, **5**, 166, (1920).
6. Specific Gravity and Composition in Iron-Rutile. *Am. Mineral.*, **6**, 100-3, (1921).
7. A Study of the Constitution of Thaumassite. *Am. Mineral.*, **7**, 12-14, (1922).
8. Ceruleofibrite, a New Mineral. *Am. Mineral.*, **7**, 80-83, (1922).
9. Note on an Unusual Carbonaceous Substance. *Am. Mineral.*, **7**, 161, (1922).
10. The Color of Three Varieties of Quartz. *Am. Mineral.*, **8**, 117-121, (1923).
11. Ceruleofibrite is Connellite. *Am. Mineral.*, **9**, 55-56, (1924).
12. The Cause of Color in Rose Quartz. *Am. Mineral.*, **9**, 75-88, 101-108, (1924).
13. Further Note on Sarcopside. *Am. Mineral.*, **9**, 205-207, (1924).
14. Graphic Intergrowths of Quartz and Black Tourmaline from Maine, (with W. H. Newhouse). *Am. Mineral.*, **10**, 42-43, (1925).
15. The Transmission of Light by Citrine. *Am. Mineral.*, **10**, 127-128, (1925).
16. The Cause of Color in Smoky Quartz and Amethyst. *Am. Mineral.*, **10**, 203-252, (1925).
17. Gems and Gem Materials, (with E. H. Kraus), **1925**, VI+222 pages.

PROCEEDINGS OF THE SIXTH ANNUAL MEETING OF THE MINERALOGICAL SOCIETY OF AMERICA

FRANK R. VAN HORN, *Secretary*

The Mineralogical Society of America held its sixth annual meeting at Yale University, New Haven, Connecticut, on December 28, 29, and 30, 1925, in conjunction with the Geological Society of America. At 2 P.M. on Monday, December 28, a joint session was held with the Geological Society of America, at which the petrologic papers were read. At the close of this session, Professor Arthur S. Eakle of the Mineralogical Society gave his presidential address on "*Needed Extension in Mineralogic Instruction*". This paper is printed in full in this number.