## MEMORIAL OF FRANK FITCH GROUT

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Frank Fitch Grout died in Minneapolis August 1, 1958. He had not been well for over a year, but worked in his office at the University almost daily until he collapsed on July 26th.

He was born in Rockford, Illinois January 24, 1880, the son of Charles Leroy and Louise Fitch Grout both originally residents of New Hampshire. He graduated from the high school course at Throop Polytechnic Institute, the forerunner of California Institute of Technology. He also started college work at Throop but finished his undergraduate work at the University of Minnesota where he received his B.S. degree in 1904 with a major in chemistry. He changed to geology and received the Master of Science degree in 1908 and the degree of Doctor of Philosophy from Yale in 1917. Grout served briefly on the geological surveys of West Virginia and Illinois and as an instructor at the University of Oklahoma. He joined the staff of the geology department at the University of Minnesota in 1907 and held appointments continuously until his retirement as Professor Emeritus in 1948. His rise in rank was rapid and he was promoted to Professor in 1919. In 1906 he married May W. Browne who survives him. He is also survived by a daughter Jean Grout Condit and four grandchildren, and by a sister Mrs. Myra Christie.

Frank Grout's main interest and research was in the field of petrography and petrology but his interests were broad and his contributions included papers on coal, clays, iron formations and ores, mineralogy, chemical analysis of rocks and Precambrian stratigraphy. Undoubtedly his greatest love in geology was for field work in the lake country of northern Minnesota and adjacent areas in Ontario, where he could travel by canoe and portage, camping in the less accessible places where outboard motors usually failed to trespass. Here he enjoyed nature in the broad sense as well as geology, and to work with him was a privilege never to be forgotten. It is fitting that his ashes were spread on the waters of Saganaga Lake.

Part of Grout's great success in his professional life was due to the fortunate association with William H. Emmons. Professor Emmons came to the University of Minnesota in 1911 as Chairman of the Department of Geology and Director of the Minnesota Geological Survey and immediately recognized Grout's outstanding ability. Emmons was busy on various consulting problems during the summer and delegated supervision of summer field work for the Minnesota Geological Survey to Grout. For a period of 35 years Grout worked on Minnesota's geology and supervised the work of younger staff members of the Department of



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Geology and graduate students. The large output of reports which resulted from the very small budget of the Minnesota Survey was, in no small part, due to Grout's ability and hard work. In the field his enthusiasm knew no bounds and he would return time and again to an important outcrop to try to pry out its secrets. He was a quiet but masterful teacher both in the classroom and in the field. Dozens of young geologists learned thorough methods of field work under his guidance.

His reputation as a teacher is shown by the fact that in successive years after retirement he taught at the Universities of Florida State, Columbia, Arizona, and California Institute of Technology.

In both field work and research Grout was a philosopher rather than a technician. He was interested in methods only to the extent necessary to obtain needed data. His active mind was concerned with the meaning of observations and their bearing on the origin of rocks and minerals. The writer worked with him longer and more closely than anyone and never ceased to be amazed at his penetrating insight into the problems of complex Precambrian geology. To have been his student, coworker and friend was a great privilege.

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