HARDY VINCENT ELLSWORTH

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# MEMORIAL OF HARDY VINCENT ELLSWORTH

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The death of Hardy Vincent Ellsworth on October 4, 1952, came as an unexpected shock to his many friends and colleagues throughout Canada and the United States. He entered hospital, for the first time in his life, on September 10, 1952, and underwent an operation from which he appeared to be making a recovery. However, on October 4 his condition suddenly became acute and he passed away mercifully quickly. For some years he had been forced to restrict active field work with the Geological Survey of Canada because of signs of heart weakness, but he nevertheless devoted himself assiduously to his work in the laboratory. Under a heavy load because of the demand for his services in the field of radioactive raw materials he still maintained satisfactory health until shortly before his hospitalization.

Ellsworth was born at Ridgeway, Ontario, on September 1, 1889. While he was the only son of Walter E. Ellsworth and Catharine Barnhard, he was the youngest of a family of five children, the others by a former marriage. His father was an influential and prosperous farmer who took a leading part in the life of the community, but who died when the son was two years old. He was brought up by his grandmother and received his early education at Ridgeway and Welland, Ontario. In the autumn of 1909 he registered at University College of the University of Toronto and graduated with the class of 1913. Under fellowships he continued for the next three years with post-graduate studies receiving his M.A. in 1914 and his Ph.D. in 1916. Rejected for war service because of his physique, he remained at the university for still another year as demonstrator in electrochemistry. In 1918 he was appointed mineralogist with the Geological Survey of Canada, a position which he filled with growing distinction until his death. In 1928 he was married to Mabel C. Adams with whom he had many common interests and by whom he is survived.

Ellsworth was widely known as a brilliant classical mineralogist and as a chemist whose craftsmanship and accuracy were of rare excellence. Very early his interest was focused on the rare earth and radioactive

group of minerals and in 1922 the first of many contributions in this field was published. Later his comprehensive memoir "Rare Element Minerals of Canada" quickly became, and still remains, a classic. His interest grew and it was natural that it should be directed toward the use of atomic disintegration as a measure of geologic time. He became an original member of the Committee on the Measurement of Geological Time of the United States National Research Council under the chairmanship of the late A. C. Lane. It was Ellsworth who carried out the analyses which established the age of the oldest known rocks as two billion years. In his early field work on the radioactive pegmatites Ellsworth had used an electroscope for detecting radioactivity. When Messrs. Shrum and Smith in 1934 described a Geiger counter which weighed some 55 pounds he was quick to see its possibilities in the field. He built one weighing 21 pounds. Much later it was he who suggested the design of a pocket model using hearing-aid batteries and miniature tubes.

With the soaring of the radioactive elements into acute world importance, Ellsworth was prepared by long experience to make major contributions. He became head of and organized the laboratory of the Radioactive Division of the Geological Survey of Canada, which is the official agency of the Atomic Energy Control Board for matters dealing with private prospectors and mining companies. He also found time to be one of the most active members and chairman of the Canadian group of the Joint Committee on Mineralogical Research of the Radioactive Minerals set up by Canadian and United States atomic energy authorities.

It was inevitable that high honours should come to one with such a record of experience and devotion to service, although personally, Ellsworth was always inclined to withdraw modestly from publicity. He was a member of the American Chemical Society and of the Canadian Institute of Mining and Metallurgy. He was a Fellow of the Mineralogical Society of America and in 1937 served as Vice-President. In 1952 he was again elected Vice-President (for 1953). He was a Fellow of the Mineralogical Society of Great Britain and Ireland (London). In 1949 he was awarded the Willet G. Miller medal of the Royal Society of Canada in recognition of his contributions. Modest and unassuming, he possessed rare vision and an active imagination. He was repeatedly advancing new ideas, many of which he himself regarded with humour, but some paid off handsomely. This originality of imagination is possible only in one who has varied active interests, and it was so in his case. Few of his associates were aware of his versatility because of his reluctance to talk about his own accomplishments.

Ellsworth, known as "H. V." from his student days, was primarily interested in mineralogy. He built up a personal collection of rare and

unusually fine specimens, the quality of which is in inverse proportion to its relatively small size. At one period he engaged in the grinding and polishing of gem stones. Always an avid reader, he amassed a considerable library which contains not only scientific books but also the classics; many of his books are collectors' items. Much of his spare time during the summers was devoted to his garden and it was only natural that here he carried on experiments. A miniature rail fence, examples of which are now being replaced with less lovely enclosures, along which grow tiny elms can still be seen. The fence is the work of Mrs. Ellsworth, the stunted elms are a product of his experiments. His love for the beautiful is everywhere apparent in his home. His collections of pottery, oil and water-colour paintings and carved wood pieces testify to his artistic taste. Although few people are aware of the fact, both he and Mrs. Ellsworth played violins for their own enjoyment; both studied art during one winter. He enjoyed good music and had a large collection of classical recordings. At another time he took up wood carving, for he loved to work with wood. He re-built his fireplace and made and finished all of the woodwork of his living-room. He even had a small machine shop in his home, and many small experimental gadgets found their way from this shop to instruments in his laboratory. Another hobby was that of photography in which he indulged on his field trips. One cannot escape the feeling that he was one who would tackle any project which sufficiently captured his interest, regardless of difficulties. He was a perfectionist at heart and, as is so often the case with perfectionists, his achievements fell so far short of his ideals that he said little even to his close associates.

Of Ellsworth the University College year-book for 1913 states in part "his greatest ambition is to bear a part in developing the natural resources of our fair Dominion." His works will testify that he has realized his early ambition with great distinction, and his loss to the ranks of mineralogists in this country and others will long be felt.

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