National Acetylene Association and has just recently been awarded the William H. Nichols Medal of the American Chemical Society, "for basic work on syntheses from unsaturated hydrocarbons." The ceremony at which this latter medal will be presented to Father Nieuwland is planned to be one of the outstanding features of the celebration of the tercentenary of the founding of the American chemical industries, to be held in this city during the week of April 22, in connection with the eighty-ninth meeting of the American Chemical Society.

Modest, unassuming, a most delightful companion and lovable personality, to know him is to become immediately his warm friend and admirer.

Mr. President, I now have the honor to present Julius Arthur Nieuwland, eminent chemist and botanist, for the award of the Gold Medal of the American Institute. In the citation of our Council on Awards, this distinction is recommended "for a life-time of patient research devoted to new fields of organic synthesis based on acetylene, to which he has made notable contributions."

OBITUARY

HERDMAN FITZGERALD CLELAND

HERDMAN FITZGERALD CLELAND, Edward Brust professor of geology and mineralogy at Williams College, was born at Milan, Illinois, July 13, 1869, the son of David J. and Margaret (Betty) Cleland. He met a tragic death in the *Mohawk* disaster on January 24, 1935, while en route to Yucatan with a party of young men whom he was to guide in the study of the Mayan remains. Three of the students, all seniors at Williams, shared his fate.

Cleland was of Scotch and Irish ancestry. His grandfather, Samuel Cleland, was a graduate of the University of Glasgow and of the Theological School at Belfast College. He came to the United States in 1826, and was pastor of various Presbyterian churches in Ohio, Iowa and Illinois till his death in 1865. Cleland's maternal grandfather, John Betty, came to this country from Ireland in 1842 and was engaged in various commercial enterprises. Herdman inherited a tradition of culture, refinement and scholarship. His thrifty Scotch training was a lifelong advantage. He lived simply but well, always managing to set aside something to be used in helping others. President Tyler Dennett has said of him: "He was also generous, one of the most generous citizens of Williamstown, not in ostentatious ways, but quietly and simply as he lived. I am told that there is more than one family in our village, which, due to his help, now owns the roof over their heads. There are others, many of them, who learned that when in sore need they could find both sympathy and substantial help. A model teacher, he was in equal degree a model citizen."

His last reported words, "I'm sorry the trip is off, boys, but I wish they had waited till the water was warm before they threw us in," show that he faced the end with the same calm courage and dry humor that had carried him through other crises in his life. Although quiet and reserved, he had an infinite capacity for making friends, to whom his conversation was a delight. He was fastidious, physically and mentally, and was annoyed by much which he saw and read; but his criticisms generally emerged as witty remarks which did not sting; yet were so pointed that they often produced good results. He was forthright and frank, yet withal so just that he aroused no personal antagonism. The mass production of the lecture system did not appeal to him. He was profoundly interested in each of his students, ever ready with counsel, advice and stimulation. That his students were well trained is attested by the records of the geologists who have graduated from Williams during the last thirty-three years. His instruction and his personality equally influenced a majority of his students who did not become professional geologists.

Cleland's early education was greatly delayed by the inadequacy of the schools in the small frontier town in which he passed his earlier years. He received a part of his preparatory training, and took two years of undergraduate work, at Gates College in Nebraska, but received his A.B. at Oberlin in 1894, where his interest in geology was fostered by the late Professor Alfred A. Wright. After graduation, ill health forced him to return for a year to the home of his father at Pierce, Nebraska. He attended the summer session of the University of Nebraska in 1895, and that fall entered upon the duties of professor of natural sciences at Gates College, where he remained three years. A summer at the University of Chicago in 1896 crystallized his leanings toward geology, and, realizing the difficulty of teaching all the natural sciences, he gave up his position at Gates College in 1898. That autumn he entered the graduate school at Yale, studying chiefly under Henry Shaler Williams, then the outstanding exponent of stratigraphic paleontology. He received his degree of doctor of philosophy there in June, 1900.

Being at a loose end, he that summer joined the first of the notable peripatetic summer schools con-

ducted by Professor Harris of Cornell. This company, which included professors, doctors of philosophy, graduate students, school teachers and a few advanced undergraduates concentrating in geology, was admirably adapted for mutual instruction. It was particularly inspiring to the present writer, whose previous contact with geology had been confined to the reading of such out-of-date text-books as were to be found in a small-town library. That ten weeks was the equivalent of the ordinary undergraduate training in the subject, for there were no soon-forgotten lectures. Everything which was said applied to objects before the eyes of the party at the moment. Thus we were taught not only to reason backward from result to cause, but, through the multiplicity of teachers, were made to realize that most phenomena have more than one plausible explanation.

The writer owes much to all members of that party, but most to Cleland, for despite the fact that he was denominated Doctor, and that I was a prospective junior turning to geology after two years in the College of Engineering, he undertook the task of seeing that I understood the results of every discussion. He was always ready to answer questions, and, best of all, he was equally ready to admit that certain questions could not be answered by him or had as yet no answers. No greater stimulus for further study or original research is possible.

Cleland spent the ensuing year at Cornell, engaged in research and teaching. During Professor Harris's absence in the winter term, which he then devoted to his duties as state geologist of Louisiana, Cleland gave the courses, one of which was devoted to a detailed discussion of the fossil Brachiopoda.

In the autumn of 1901, he was called to Williams College, where he was instructor in geology and botany till 1904, assistant professor till 1907, when he became professor of geology and mineralogy. After teaching all the sciences, he was at last in a position to teach one. Even so his task was not simple. He had to build up a department and a museum. He succeeded in doing both.

Cleland's early researches were in the realms of paleontology and stratigraphy. His doctoral dissertation, published as a Bulletin of the U. S. Geological Survey, was a very detailed study of the distribution of the fossils in the Hamilton formations exposed along Cayuga Lake. He later described the fauna of the Mid-Devonian strata at Milwaukee, Wisconsin, and also published two important papers descriptive of the Beekmantown fossils of the Mohawk Valley. He subsequently withdrew almost entirely from this field, devoting himself to his first text-book, "Physical and Historical Geology" (American Book Company, New York, 1916), and to other geological subjects, particularly the origin of natural bridges. His "Practical Applications of Geology and Physiography" (Excelsior Press, North Adams) appeared in 1920.

Later in his life his interests changed again. Numerous trips to Europe, some of them prolonged, brought him in contact with the vestiges of prehistoric civilizations. He took up particularly the study of the Neolithic and later ages, a part of the story of ancient man commonly considered to be outside the province of the geologist. This led to his interesting book, "Our Prehistoric Ancestors" (Coward-McCann, Inc., New York, 1928). His last work was a little volume entitled, "Why be an Evolutionist?", 1930.

Cleland was a fellow of the American Association for the Advancement of Science, American Academy of Arts and Sciences, Geological Society of America (councilor, 1928–31), Paleontological Society (secretary, 1909), American Geographical Society, member Seismological Society, American Institute of Mining and Metallurgical Engineers, American Archeological Society, New York Academy of Science, Phi Gamma Delta, Sigma Xi and Phi Beta Kappa (honorary member).

He was married twice, first to Helen Williams Davison, and, after her death, to Emily Leonard Wadsworth. His widow, four daughters, a brother and a twin sister, Elizabeth, who has ever been his help in time of trouble, survive him.

A man of high ideals, broad culture, wide interests and an unusual personality has suddenly been taken from us. A host of former students and colleagues mourn him.

PERCY E. RAYMOND

RECENT DEATHS

PROFESSOR WILLIAM JOHN SINCLAIR, for thirty years a member of the department of geology of Princeton University, died on March 25. He was fifty-seven years old.

SIR EDWARD SHARPEY-SCHAFER, professor emeritus of physiology at the University of Edinburgh, died on March 29 at the age of eighty-four years. The council of the University of Edinburgh had approved on March 19 the establishment of a Sharpey-Schafer Lectureship in physiology, a fund for its endowment having been contributed by his pupils and friends.

AKIRA FUJINAMI, professor emeritus of the Kyoto Imperial University, died on November 18, 1934. To workers in cancer research the late Professor Fujinami is known for his first discovery of a transplantable chicken sarcoma and for his work on a neoplasm of this type.