lastly, from a Guggenheim Fellowship. In 1941–42 he also taught geology at Wesleyan University. Demorest was a member of the Research Committee on Glaciers of the American Geophysical Union and likewise a member of the International Commission of Snow and Glaciers. He was at the time of his death a candidate for election as fellow in the Geological Society of America.

The glaciologic research in which he was so deeply interested was of a kind which no one on this side of the Atlantic had yet undertaken. By the methods of optical crystallography he sought to study the crystal fabric of glacier ice and the changes which it suffers by the differential stresses incidental to glacier motion. To do this he cut selected pieces of ice from the glaciers of Mount Rainier, shipped them, encased in "dry ice," to New Haven, and there, in a subfreezing laboratory, examined thin sections of them under a specially adapted polarizing microscope. He thus verified the results obtained by Gerald Seligman's party of British scientists who, in 1938, did the first research of this type, in a high-altitude laboratory hewn in the ice at the head of the Aletsch Glacier, in Switzerland. But Demorest went further than they, for he succeeded in recording on motion film the process of recrystallization as it goes on in the ice under differential pressure, and he thus produced the first ocular evidence of the molecular adjustments that take place in the individual crystals and permit them to yield by continuous deformation to the stresses imposed.

Demorest, however, did more than prove that glacier motion is primarily of the nature of plastic flowage. He also outlined deductively the mechanics of two distinct modes of glacier flow—direct gravity flow, such as is characterisic of valley glaciers descending steep gradients, and extrusion flow, such as is induced in ice caps by differential pressures, as an indirect result of gravity. Best of all, he explained why glacier ice, though capable of plastic deformation, nevertheless shears as a brittle substance under certain conditions—namely, wherever in glaciers or ice caps normal flowage is obstructed. And thus he provided the key to the solution of a baffling problem that has been the subject of controversies between opposing schools of thought for more than a hundred years—ever since the days of Agassiz, Tyndall and Forbes.

These fundamentals of the mechanics of glacier motion Demorest set forth in his part of the paper on "Glacier-thinning During Deglaciation" which he and Richard Foster Flint produced together. So eminently sound, however, did his exposition seem to the present writer, who had the privilege of reading the manuscript before it was published, that he immediately secured Demorest's consent to the incorporation of the basic principles in the chapter on "Glaciers" which was being prepared for the volume on "Hydrology," No. 9 of the Physics of the Earth series of the National Research Council. And as a result Demorest's conception of the laws of glacier motion was made known through two different publications in quick succession. It seems almost providential, now that Max is gone, that acceptance of the principles he laid down was thus announced without delay, while he was still living.

In the death of Max Demorest both glaciology and glacial geology have lost a master mind who, even before the age of thirty-two, brought clarity where there had been much confusion. He will be remembered by his colleagues as one who did not engage in disputation, who by his calm, convincing reasoning caused no rancor nor ever lost a friend.

FRANÇOIS E. MATTHES
U. S. GEOLOGICAL SURVEY

RECENT DEATHS

DR. HARRY H. LAUGHLIN, of Kirksville, Mo., geneticist, formerly associate director in charge of the Eugenics Record Office of the Department of Genetics of the Carnegie Institution of Washington at Cold Spring Harbor, Long Island, N. Y., died on January 26. He was in his sixty-third year.

DR. HOWARD M. RAYMOND, who retired ten years ago as president of the Armour Institute of Technology, Chicago, died on January 24. He was seventy years old.

Nature announces the death of Professor Rudolf Abel, the German bacteriologist, formerly professor of hygiene in the University of Jena, at the age of seventy-four years; of Sir Bryce Chudleigh Burt, director of animal feeding stuffs, Ministry of Food, India, from 1921 to 1928 secretary of the Indian Central Cotton Committee, on January 2, at the age of sixty-one years, and of F. W. Harbord, the metallurgist, on December 27, at the age of eighty-two years.

SCIENTIFIC EVENTS

THE INTER-AMERICAN INSTITUTE OF AGRICULTURAL SCIENCES

THE special correspondent at St. José, Costa Rica, of *The New York Times* calls attention to the fact that the agricultural development of the Americas has begun to take tangible form in the Inter-American Institute of Agricultural Sciences now being developed at Turrialba, Costa Rica.