gists famed for their remarkable discoveries in an age of great geological discovery, Orton was elected the ninth president of the Geological Society. No higher recognition was possible from geologists. But two years later, in 1899, the great body of American scientists—the American Association for the Advancement of Science—made him their president. During this year of office came his death.

So we come to the close of the career of that quiet man who loved nature, who loved his fellow men and who served both well. That statement might be said to summarize his philosophy of life. He had as part of it a philosophy of his science. Some elements of this have already been referred to—for example, his willingness to comment forcibly on the methods of commercial exploitation of geological resources, and he was outspoken regarding the "self-deception" attending oil and gas booms. In this way Orton interpreted his relation to his public trust.

In matters of pure science he also had convictions. He stressed the essential unity of geology and protested the lack of breadth of understanding which was beginning to appear in specialization.

> . . . the methods of investigation and research employed in the several sections of geological science are so diverse that it is quite possible for those who work in one to fail in due appreciation of . . . all the rest.
>
> But the putting asunder of things which belong together is always to be deplored. It will be an evil day for geology when, by a confusion of tongues, the utterances of its various builders become unintelligible to one another.
>
> . . . Geology still demands of its students a wide range of knowledge and interest. Its most substantial progress will be due in the future as it has been in the past, not to the level and clinometer alone, not alone to the sagacious interpretations of the relics of life, not alone to microscopic section or to chemical analysis, but to all combined. . . .[15]

In fact, he felt the essential unity of all science:

> Every road in science leads to the end of the world. You can write the history of the vegetable kingdom from the beginning of time, in telling the story of the hyssop that grows on the wall.[16]

Ordinarily tolerant, he had no patience with pretense or with hypothesis founded on fancy rather than fact; for example, this forthright statement:

> These conclusions (he is discussing the vegetable origin of coal) are questioned by no one who has a right to an opinion. Occasionally it is true, some belated denizen of the seventeenth century still attacks the problem of the origin of coal in the *a priori* way and evolves a theory of its formation from his own consciousness. Such theories do not require refutation. Like the seed sown in stony places, they speedily wither because they have no root. Inventions and not discoveries, they are quite likely . . . to go to their own place and be buried with their inventors.
>
> The formation of coal from vegetable growth I do not take to be an unsolved or unfinished problem.[17]

His mind was open toward the future, and on this note I wish to conclude the discussion of Edward Orton. Science is unending, nor is it complete apart from its spiritual relation to man. The interpretation of this concept is unsurpassed in his statement:

> All these things we *know*. Must not such knowledge "grow from more to more?" Can we not be sure that the little problems . . . which now rise before us as unfinished will sooner or later find their solution?
>
> But when they are solved, will all be known? Nay, verily. Out of these old Carboniferous swamps, new questions, larger, deeper than any we now see, will perpetually arise, to stimulate by their discovery and to reward by their solution, that *love of knowledge for its own sake* which makes us men."[18]

OBITUARY

JACOB GOODALE LIPMAN

IN the passing of Jacob Goodale Lipman, who died at New Brunswick, New Jersey, on April 19, 1939, the agricultural world and particularly the field of soil science has sustained a loss that will be felt not only in the United States but throughout the entire world of scientific endeavor for the improvement of agriculture through the development of basic principles and practices. Dr. Lipman was born at Friedrichstadt, Russia, on November 18, 1874, but was reared on a farm in southern New Jersey. He received his early training at the Baron de Hirsch Agricultural School and his B.Sc. degree from Rutgers College in 1898. After serving as assistant chemist at the New Jersey Experiment Station for two years he took up graduate work at Cornell, where he received his Ph.D. in 1903. In recognition of his distinguished service to agriculture he was awarded the honorary degree of D.Sc. by Rutgers in 1923 and by the Catholic University of Santiago, Chile, in 1930. After serving his alma mater in various capacities he was appointed director of the New Jersey Agricultural Experiment Station in 1911 and dean of agriculture in 1915, both of which positions he continued to occupy until the time of his death.

As dean and director, Dr. Lipman has always been active in the affairs of the Association of Land-Grant

[15] American Association for the Advancement of Science Proceedings, 34: 173, 1885 (1886).

[16] *Idem*, 180.

[17] *Idem*, 180–181.

[18] *Idem*, 197.

Colleges and Universities, and his advice and assistance have contributed greatly to the shaping of the policies and the guiding of the activities of this organization.

Beginning as a charter member in 1907 his interest and active support of the American Society of Agronomy has continued throughout the years.

In the midst of a busy administrative career Dr. Lipman not only continued his research activities but found time to serve as editor-in-chief of *Soil Science*, a journal which he founded in 1915 to serve as a medium for the publication of the results of basic soil investigations, and as associate editor of a number of scientific journals, both in this country and abroad. His publications include a long list of technical papers on soils, soil bacteriology and agronomy. In addition to membership in a long list of scientific societies, honorary technical fraternities and civic bodies, he was a corresponding member of the Swedish Royal Academy of Agriculture, French Academy of Agriculture, the Czecho-Slovakia Academy and other learned foreign societies. Dr. Lipman was a delegate to the International Institute of Agriculture at Rome in 1922, 1924 and again in 1926, and to the Third International Conference on Soil Science at Prague in 1922 and the Fourth Conference in Rome in 1924. His activities in connection with these international conferences on soil science resulted in his election to serve as president of the First International Congress of Soil Science, which was held in 1927 at Washington, and as chairman of the American delegation to the Third International Congress of Soil Science held in 1935 at Oxford, England.

In addition to those already mentioned, many honors came to him in the form of special assignments by the United States government to serve on special committees and his designation by state officials to serve on various boards and commissions concerned with public health and other matters of civic concern.

In recognition of his distinguished service in the interest of soil science, Dr. Lipman was designated in 1929 to serve as one of the representatives of the State Experiment Stations on a National Committee on Soil Erosion to formulate plans and make recommendations for a cooperative attack upon the soil erosion problem. Through the decade of development and transition from soil erosion to the broader concepts of a broad program of soil conservation he has contributed generously of his time and talent, always ready and willing to devote a day or two out of a busy week to conferences or field trips.

To his colleagues Dr. Lipman was a constant source of inspiration and friendly counsel and to his students a stimulus to the attainment of scholarship and the development of the research attitude of mind. So great was his enthusiasm for his work that the men under him or associated with him, even though they sometimes disagreed with him, caught the contagion and were inspired to higher achievements in their chosen field of soil science.

Those of us who were fortunate enough to obtain glimpses of his wholesome and well-balanced philosophy of life at various times and under different circumstances are fortunate. A young scientist who has not had the friendship of a man of Dr. Lipman's type is spared the grief that comes with his loss, but his life is lacking one of its greatest joys and the satisfaction that comes out of such associations.

A. G. McCALL

U. S. DEPARTMENT OF AGRICULTURE

ADOLF CARL NOÉ

AFTER thirty-six years of varied services to the University of Chicago, Adolf Carl Noé died quietly in his sleep early on the morning of April 10, 1939. Dr. Noé, who had been in charge of the field of paleobotany for sixteen years, was to have retired on October 1, and he was particularly anxious to put his scientific "affairs in order." Saturday, March 11, therefore, found him at his office busy working on the final chapter of what will doubtless be his most important scientific memorial—the Stutzer-Noé Textbook on Coal. There, in the midst of his labors, he suffered the paralytic stroke from which he was unable to rally.

Dr. Noé was born in Gratz, Austria, on October 28, 1873, the son of Adolf Gustav and Marie (Krauss) von Noé. He attended the University of Gratz from 1894 to 1897, and the University of Göttingen from 1897 to 1899, during which year he came to the United States. Entering the University of Chicago he received the A.B. degree in 1900, and the Ph.D., in Germanic languages, in 1905. Although he was originally interested in the sciences, and had been a "demonstrator" in paleobotany at Gratz, he found it easier in this country to obtain employment teaching languages. After a year of such work at Burlington, Iowa, where, on July 3, 1901, he married Mary Evelyn Cullatin, Dr. Noé became instructor in German at Stanford University. Returning to Chicago he was instructor and assistant professor of German literature (as well as an assistant librarian) from 1903 to 1923. At this latter date he found it possible finally to return to his field of original interest, and he became assistant professor of paleobotany. He immediately outlined a course of study and offered work in the departments of geology and botany. The following year he was promoted to an associate professorship and made curator of fossil plants at Walker Museum.

Even before Dr. Noé succeeded in making a place for his subject in the curriculum at Chicago, he had in 1921 become geologist on the staff of the Illinois Geological Survey. This position he occupied until