and on the formation of a Lehigh alumni association at Philadelphia in 1870 he was chosen its first president, and a few years later was appointed an honorary alumni He last visited Lehigh on the occasion of a reunion of the alumni in 1897, when he delivered an address. frequent contributor to the collections of the several scientific departments of the University, and many of his collections are preserved in the University Museum. A nominal resident of, and frequent visitor to, Washington, he took a prominent part in the scientific activities of the Capital. He was one of the founders of the Anthropological Society of Washington, and of the Cosmos Club; he was also a member of the Washington Academy of Sciences and of the National Geographic Society.

Mr. Rock's death was sudden, resulting from acute gastritis followed by heart failure. The sad intelligence was reported to the State Department on the second of last February, by United States Consul-General McNally of Guatemala.

In recognition of the great worth of the services which Mr. Rock had rendered to Guatemala during the years of his official activities there, the Government of that country took charge of the funeral, and he was buried in the cemetery of Guatemala City with public honors under the personal direction of President Cabrera. official reports to the Department of State, the representatives of this country in Guatemala showed that Mr. Rock was universally mourned, and that no such funeral honors had ever before been accorded to anyone but the highest officials of the country. The most affecting if not the most impressive feature was the attendance of hundreds of poor natives, who had known Mr. Rock and experienced his never-failing kindness and generosity, who silently and tearfully followed him to his last resting place. Simple in their own lives and

thoughts, they paid the only tribute at their command to the man whose singleness of purpose, love of justice and warmth of heart endeared him to all who knew him. Peace be to his ashes!

Mr. Rock leaves a widow, a married daughter, Mrs. F. L. Ransome, and a son, Alfred Mayer Rock, all of whom reside in this city.

WILLIAM EIMBECK.

Washington, D. C., April 22, 1901.

## OTTO LUGGER.

OTTO LUGGER, State Entomologist of Minnesota, who died May 21, from pneumonia, after a very short illness, was one of the most widely known of the many Americans of German birth who have obtained high scientific reputation in this country. was born at Hagen, Westphalia, September 16, 1844. His father was a professor of chemistry in a Prussian university. Lugger was educated in Hagen, and in 1864 became a lieutenant of cavalry in the Prussian army. In 1865 he came with his parents to the United States and secured a position with the engineer corps of the army, and for two years was engaged in the survey of the Great Lakes. He had always been interested in entomology, and collected specimens while engaged in his engineering work. He became acquainted with the late C. V. Riley, who at that time was occupied in newspaper work in Chicago, and, when in 1868 Riley was appointed State Entomologist of Missouri, Lugger went with him as his assistant. During the years 1868 to 1875, when Riley established his great reputation as economic entomologist and published eight of the nine annual reports which brought him lasting fame, Lugger remained his quiet, unassuming, selfsacrificing and devoted helper. In 1875 he married Lina Krokmann and went to Baltimore, where he became the curator of the Maryland Academy of Sciences and naturalist of the city parks. In 1885 he was appointed assistant in the Division of Entomology of the U. S. Department of Agriculture, remaining in Washington until 1888, when he was appointed entomologist to the State Agricultural Experiment Station of Minnesota, publishing his first bulletin in this new office July 3, 1888.

His first entomological experience in the State of Minnesota was one of great interest and importance, and his vigorous and intelligent action in the face of a great emergency fixed his standing as a most useful officer firmly in the minds of the Minnesota farmers. An enormous swarm of the Rocky Mountain locust or western migratory grasshopper had settled down in Ottertail County. By Lugger's advice and energetic field work, backed as he was by a publicspirited and intelligent governor (Hon. W. R. Merriam, now director of the U.S. Census) who personally guaranteed the funds necessary for the campaign, the hordes of destructive insects were annihilated and great damage was averted.

From that time to the time of his death, nearly thirteen years, Lugger's work was most active; his publications were frequent, and he gained the profound respect of his constituents and of the scientific men of the country. His bibliography, covering about thirty titles of record, comprises almost exclusively articles on economic entomology, but he was by no means a one-sided naturalist. He was a good botanist and published several papers concerning plant diseases, notably his article on the black rust or summer rust (Bulletin 64, Univ. Minn. Agric. Exp. Station).

Some years ago he began the publication of a series of large papers which when brought together would have formed an elaborate treatise on the entomology of Minnesota. The parts which had been published were an extensive paper on the parasites of man and domestic animals (Bul. 48, 1896, Minn. Agric. Exp. Sta., pp. 72-270, figs. 187, plates 16), the Orthoptera of Minnesota (Bul. 55, 1897, pp. 91–386, figs. 187), the Lepidoptera of Minnesota (Bul. 61, 1898, pp. 55-334, figs. 237, plates 24), the Coleoptera of Minnesota (Bul. 66, 1899, pp. 85-331, figs. 249, plates 6), and the Hemiptera of Minnesota (Bul. 69, 1900, pp. 1-259, figs. 200, plates 15). It is a great pity that Lugger did not live to complete this series, since the elaborate numbers were profusely illustrated and were prepared with great care and written in a most interesting style. At the time of his death he was preparing the part on Diptera, in which he intended possibly to include the Neuropteroids. It is greatly to be hoped that his manuscript was sufficiently advanced to permit its publication.

Aside from his scientific ability, Lugger was a man of admirable qualities. His wide information, his agreeable personality and his keen sense of humor made him one of the most delightful companions I have ever known. Many of his stories and humorous sayings are current among entomologists all over the United States, and his loss will be felt for many years to come. He leaves a widow and two children—a daughter, Mrs. Linnea Clarke, and a son, Humboldt Lugger, the latter now living in Kentucky.

L. O. HOWARD.

## SCIENTIFIC BOOKS.

The Phytogeography of Nebraska. I. General Survey. 2d Ed. Roscoe Pound and Fredk. E. Clements. Published by the Botanical Seminar, University of Nebraska, Lincoln, Neb. 1900. 8vo. Cloth. Pp. 442 and 4 maps.

To those who have not paid special attention to this branch of investigation this volume will prove to be both a revelation and an incentive to learn. It is a revision of the first edition, issued some three years ago, with additional material