

OBITUARY.

GEHEIMRATH PROF. KARL HARRY FERDINAND
ROSENBUSCH.

BORN 1836.

DIED JANUARY 20, 1914.

ALTHOUGH the subject of this notice was generally known in this country under the name of *Heinrich* Rosenbusch, I can find no authority for the use of this Christian name. His official designation was as given above, while in all his published writings and private letters, down to the year 1900, he subscribed himself H. Rosenbusch, after that date using the name 'Harry' only.

The distinguished petrographer was born at Einbeck in Hanover in the year 1836, and was educated at the gymnasium of Hildesheim and the Universities of Göttingen, Freiburg, and Heidelberg, acquiring a taste for mineralogical studies at the last-mentioned seat of learning under Professor Blum. Before taking his doctor's degree, however, Rosenbusch accepted a post as tutor in a Portuguese family and proceeded to South America, and it was at this time probably that he made that wide acquaintance with foreign languages by which he was so greatly distinguished in after life. In 1868 he was back again in Freiburg, where he took his degree and in the following year became a privat-docent.

Rosenbusch's residence in Freiburg had very important results not only in his own career but in the development of petrographical science. The Professor of Mineralogy in the University of Freiburg at that day was Heinrich Fischer, who had not only made himself acquainted with all that had been previously done in applying the microscope to the study of rocks, but had brought together a large collection of rock-sections upon which he had based his *Kritische mikroskopisch-mineralogische Studien* and his well-known treatise on Nephrite and Jade. These sections and Fischer's extensive library were placed at Rosenbusch's service, as he gratefully acknowledged, and soon the enthusiastic pupil was able to carry the work much farther than the master had done. Rosenbusch recognized the important fact that the exact determination of the minerals seen in a rock-section must be based on rigid optical methods, and he set to work to make the improvements in the microscope which would enable such methods to be employed. In 1873 Rosenbusch's epoch-making work on the rock-forming minerals made its appearance, to be followed in 1877 by his great treatise on rocks. Of the far-reaching influence of these works and of the successive editions of them it is unnecessary to speak—their praise is in all the schools.

After the war of 1870 the German Imperial Government determined to prepare a geological map of Alsace and Lorraine, and Rosenbusch was appointed a member of the Survey and at the same time extraordinary professor in the University of Strasburg; this led to the publication of his well-known memoir on the Andlau granite and the contact metamorphism produced by its extrusion.

But in 1878, by his appointment to the full professorship of Geology at Heidelberg, Rosenbusch reached the goal of his ambitions, and soon

founded his famous "Mineralogisches-geologisches Institut". Here during the following twenty-eight years he attracted successive generations of enthusiastic students from all countries, perfecting his methods and applying them in a number of petrographical memoirs, but doing still more important work by his example and influence on the labours of his devoted followers.

In 1906, upon reaching the age of 70, Rosenbusch retired from his professorship, the event being made the occasion of the publication of a 'Festschrift', in which his students from all parts of the world published original memoirs devoted to the science they had learned from their great master. On January 20, 1914, Rosenbusch passed away, after a short and severe illness, leaving a widow but no children.

No notice of Rosenbusch would be complete without a reference to the amiability and charm of his personality. He was a born teacher and inspired the strongest feelings of affection in his pupils. They loved to dwell in after years on his conversations as he made the round of his laboratory, his enthusiasm when, with lighted cigar, he demonstrated the existence of carbon dioxide in cavities of quartz, and his constant insistence that no determination of a mineral should be considered settled till every optical test had been applied. By his scientific contemporaries in all countries he was equally esteemed and loved. Ever ready to exchange specimens, sections, and ideas, he was modest and gentle in expressing dissentient views, and friendly and generous in agreement and appreciation of the work of others. Rosenbusch has left a great and enduring mark upon the geological science of the nineteenth century.

JOHN W. JUDD.

ALBERT C. L. G. GÜNTHER,
M.A., M.D., PH.D., LL.D., F.R.S., F.L.S., F.Z.S.

BORN OCTOBER 3, 1830.

DIED FEBRUARY 1, 1914.

ANOTHER eminent naturalist has just passed away, an old friend and colleague of the writer for many years in the British Museum, and for half a century the highest authority in this country on Ichthyology.

Albert Charles Lewis Gotthilf Günther was the son of Frederick Gotthilf Günther, of Möhringen, and a descendant of the first Duke of Würtemberg, the founder of the University of Tübingen. Here young Günther, as founder's kin, was entered and received a free education, taking the Ph.D. degree in 1852. He next worked at the University of Bonn, and at Berlin, under Johannes Müller. In 1853 he published his first paper, on the fishes of the River Neckar. He qualified as a physician and surgeon, doing part of his work at St. Bartholomew's Hospital in London, and taking the degree of M.D. at Tübingen in 1862.

In 1855 he was engaged at the British Museum to prepare Catalogues of Fishes and Reptiles, under Dr. J. E. Gray, and after eight years special work he was appointed an Assistant in 1864, and succeeded Dr. Gray as Keeper of Zoology in 1875, a post which he