

PROFESSOR WILHELM SCHUR.<sup>1</sup>

IT was with great regret that we had to announce last week the death of Prof. Wilhelm Schur, of Göttingen, a loss which deprives, not only astronomy of one of its most ardent and enthusiastic workers, but many of us of a kind and devoted friend. The loss will be felt personally by a great number of Britishers and Americans who have studied at the Göttingen University and who met Schur, not only in the lecture theatre and observatory, but at his private home.

Schur was born on April 15, 1846, and first took a great interest in astronomy at the Altona Observatory, where the director of the Observatory, Prof. A. C. Petersen, was one of his near relations. His first studies were commenced at Kiel in 1863, and three years later he migrated to Göttingen, where he graduated, his thesis being a computation of the orbit of the double star  $70\ \phi$  Ophiuchi after the new formulæ of Klinkerfues. Schur always took a great interest in after years in this double star, as is shown by later publications. Leaving the University, he made a tour for further study, working at Berlin under Auwers at the new reduction of Bradley's observations, and under Foerster at the Observatory. While at Berlin he was made assistant at the Geodetic Institute, and remained there until he was called (in 1873) by Winnecke to Strassburg. After spending some time there, he was made observer, and worked, as he had always done, with untiring zeal and energy. He was chosen to form part of the transit of Venus expedition in 1874, which set out for the Auckland Islands under the direction of Seeliger.

It was in connection with this work that Schur became so intimately familiar with the working and details of the heliometer, and since then he proved himself to be one of the greatest authorities, if not the greatest, upon this important instrument. Schur, however, was not content to restrict his energies to this instrument alone, but developed a many-sided interest for all the instruments at the observatory. Thus, to take two instances, he made a series of important lunar observations with the transit instrument of Cauchoix, and numerous observations of variable stars, and completed a minute investigation on the optical properties of different varieties of glass, before the construction of the large refractor.

In 1886 Schur was called to Göttingen to fill the chair of practical astronomy, which had become vacant owing to the death of Klinkerfues. The first few years spent there were devoted to the rebuilding of the observatory, the arrangement of the library, and the laborious computations and publication of Klinkerfues' observations. The observatory became the possessor of a fine new large Repsold heliometer, so that Schur was able to return again to his favourite instrument. In his hands and with his energy a great amount of useful work was accomplished, and he investigated more especially in the greatest detail the constants and many peculiar sources of error of the instrument.

Perhaps the most important of these researches was contained in the very complete work on the stars in the cluster of Præsepe, in which he brought together in a masterly way everything that is necessary for the reduction of heliometer observations. His most recent great work, and one which he laid before astronomers at the Heidelberg conference, was that relating to the triangulation of the star clusters  $\beta$  and  $\chi$  Persei.

Up to the last, Schur sustained his interest in collecting and working up old observations, and in the past few years, under his guidance, Dr. Sticthenoth made a new reduction of Olbers' observations of comets, which appeared in 1898 as an appendix to Schilling's "Leben Olbers." More recently Schur was busy with collecting material of astronomical work done by astronomers in

<sup>1</sup> For most of the details in this notice I am indebted to information given in the *Astronomische Nachrichten* (No. 3731).—W. J. S. L.

the province of Hanover, and the results of this study are already completed, but not yet published.

Although Schur was not among the favoured few to whose name some epoch-making discovery could be attached, yet his observations and reductions will endure as examples of exact and careful work and will prove both valuable and useful in future investigations.

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## BARON DE LACAZE-DUTHIERS.

THE death of Prof. de Lacaze-Duthiers on July 21, in his eighty-first year, deprives the world of science of a renowned and energetic naturalist whose active life was devoted to the advancement of scientific knowledge and interests.

From an obituary notice in *La Nature* we learn that Henri de Lacaze-Duthiers was born at Montpezat (Lot-et-Garonne) on May 15, 1821. He began the study of medicine at Paris, but soon devoted himself to zoology, and in 1854 was appointed professor of zoology in the University of Lille. At his request he was afterwards entrusted by the Government with the task of studying the nature of corals on the Mediterranean coasts. He spent several months along the Algerian coast, and then returned to Paris with an abundance of material. His great work, the "Monographie du Corail," was the result of this expedition, and its publication inaugurated a new stage of appointments in his career. He was appointed maître de conférences at the Normal School in 1864, and in the following year became professor of zoology at the Paris Museum of Natural History. Three years later Lacaze-Duthiers passed from the Natural History Museum to the Sorbonne, where he accepted the chair of zoology, and finally, in 1871, he was elected a member of the Paris Academy of Sciences, and later became president of the Academy.

Among Lacaze-Duthiers' published volumes may be mentioned his "Histoire naturelle du corail," "Histoire de l'organisation et du développement des mœurs du Dentale" and "Le Monde de la mer et ses laboratoires." In 1873 he founded the *Archives de la zoologie expérimentale*, and he was the author of numerous papers and memoirs which have contributed to the development of zoology. The two Government stations of marine biology, established by the exertions of Lacaze-Duthiers, are memorials of his influence upon zoological science. The first was founded at Roscoff, in one of the most attractive and favourable collecting regions in Brittany, and has continued to grow in importance for more than a quarter of a century. As this station, however, could be serviceable during summer only, it gave rise to a smaller dependency of the Sorbonne in the southernmost part of France, on the Mediterranean, at Banyuls-sur-mer, which has the additional advantage of a Mediterranean fauna.

Many British and American students have been welcomed to these institutions and have enjoyed the advantages they afford. Describing the Roscoff laboratory several years ago, Mr. Bashford Dean said: "The stranger who writes to Prof. de Lacaze-Duthiers is accorded a work place which entitles him gratuitously to every privilege of the laboratory—his microscope, his reagents, even his lodging-room should a place be vacant. It seems, in fact, to be a point of pride with Prof. Lacaze-Duthiers that the stranger shall be welcomed to Roscoff and, upon entering the laboratory for the first time, feel as much at home as if he had been there a week." This liberal spirit was a characteristic of Lacaze-Duthiers; he was always ready to facilitate the study of nature by any means within his power, and right up to the time of his death he occupied himself with investigations of scientific problems. As a tribute of admiration for the good and useful work done by him in zoology, his