as teacher of histology and later of advanced bacteriology. Here also was done most of his work for the Medical Department of the Local Government Board after he left the Brown Institution.

Almost all Klein's early work was on histology, a branch in which he was and is an acknowledged authority. In 1873 he wrote the section on histology for the "Handbook for the Physiological Laboratory," edited by Burdon-Sanderson, Foster, Brunton, and Klein. In the same year he published an authoritative work, in two parts, entitled "Anatomy of the Lymphatic System." These volumes were profusely illustrated with beautiful drawings by Klein from his own preparations, and he exploited with great success the method of silver impregnation which was introduced into histological technique by von Recklinghausen (1860). In 1875 Klein was elected a fellow of the Royal Society. His reputation as a histologist was greatly increased by the publication, in conjunction with the orthopædic surgeon Eldred Noble Smith (1847–1906), of the classical "Atlas of Histology" (1880). The forty-eight magnificent plates in this work were drawn by Noble Smith from Klein's preparations, and some of the illustrations have been copied into almost every English book on anatomy and physiology down to the present time. Klein also published a standard "Elements of Histology," which ran through many editions and was translated into several foreign languages.

We have dealt in some detail on Klein's activities in histology because we feel convinced that, although this occupied chiefly his earlier years, it is the work by which he will be best and longest remembered. He was brought to England not as a normal histologist, but to engage in the histological problems connected with disease, and he drifted into experimental pathology and bacteriology, as we think, *malgré lui*. He lived and worked untiringly throughout the whole of the classical period of bacteriological science from 1876 to 1900, and it is greatly to be regretted that his name cannot be placed alongside those of Pasteur, Lister, Koch, Loeffler, Roux, Pfeiffer, Weichselbaum, Kitasato, Behring, and Ehrlich, as the discoverer of any really important ætiological agent of disease. Indeed, it may sound like a paradox, but on more than one occasion he failed at first to confirm work which has become part of established bacteriological knowledge. This is difficult to understand, for, at any rate in his later years, he was a splendid technician, and frequently exhibited beautiful cultures of bacteria. We are inclined to think that his failure to make any bacteriological discovery of the first rank was due to the fact that he arrived on the field just a few years too soon. When he began the investigation of disease the methods in vogue were microscopic only. Cultivation was practically unknown or carried out by methods now admitted to be insufficient. Bacteriology really emerged through the genius of Koch, and at a time when Klein was labouring with the old methods. Had he been in a position to become associated with a master of technique like Koch, he must with all his skill have succeeded in grasping at least one of the golden prizes which were falling into the hands of the workers in Germany and France.

There is a good deal of evidence in Klein's writings that his control experiments were too scanty or incomplete, and this led him to hasty conclusions on more than one occasion. Although it is to be regretted that Klein had not the luck to make a really important discovery in bacteriology, he exercised a profound and beneficial influence in England on the applications of the science to public health problems, and may be said to have controlled this branch for nearly half a century in a manner which was greatly to his credit. In personal intercourse with the younger workers he was always most helpful and generous, and placed his great experience at their service. All the memories of him in the country of his adoption will remain favourable. He was a tall, handsome man who spoke broken English to the end. Of affable manners, he was often polemical, but took defeat in a thoroughly sportsman-like fashion. Throughout life he showed the characteristics of his race in a passion for music and chess.

W. B.

HUGO VON SEELIGER, who died on December 2, was born at Bielitz-Biala, Austria, on September 23, 1849. After studying at the universities of Heidelberg and Leipzig, he was appointed observer at Bonn Observatory in 1873 and remained there for four years, taking part in the observations of the zone 40°-50° for the Astronomische Gesellschaft Catalogue, and being a member of the expedition to observe the 1874 transit of Venus. After a short period at Gotha he went to Munich in 1882 as Director of the Observatory and professor of astronomy. He remained there for the rest of his life, and became famous as a teacher, Schwarzschild having been one of his pupils. He also made several theoretical researches both on stellar problems and those relating to the solar system. He was a pioneer in the application of statistical methods to the study of star density, and the size and shape of the stellar system; his estimate of the absorption of light in space was 0·3 mag. in 12,000 light years. He was interested in the excess of the motion of Mercury's perihelion over its theoretical value. He examined whether any distribution of the matter forming the zodiacal light could explain this, without introducing other anomalies in the motion of the nearer planets. Another study related to the brightness of Saturn's ring. Basing his work on Maxwell's deduction that the ring was composed of small particles, he obtained expressions for its change in brightness at different distances from opposition, which were verified by Müller's photometric observations.

WE regret to announce the following deaths:

The Right Hon. Sir Thomas Clifford Allbutt, K.C.B., F.R.S., Regius professor of physic in the University of Cambridge since 1892, on February 22, aged eighty-eight.

Mr. T. H. W. Idris, president in 1903 and 1904 of the British Pharmaceutical Conference, on February 10, aged eighty-two.

Sir T. Edward Thorpe, F.R.S., emeritus professor of chemistry in the Imperial College of Science and Technology, South Kensington, and president in 1921 of the British Association, on February 23, aged seventy-nine.