

the case and convincing the sceptics who were unable to repeat his experiments. He showed that sympathetic nerves and parasympathetic nerves liberated substances resembling adrenaline and acetylcholine, respectively. He showed that the latter substance was destroyed by an enzyme and that this enzyme was inhibited by physostigmine, and as the years went by and others became interested, he made many other discoveries in this field. He was awarded a Nobel Prize in 1936 jointly with Sir Henry Dale for this work. He left Austria when the Nazis arrived and now lives in New York, where he celebrated his eightieth birthday last year. He is still an active thinker, full of new ideas and able to take the lead at great gatherings such as the symposium in Philadelphia in September 1953, which was entirely devoted to the phenomenon to which he gave the name of neurohumoral transmission. The account of this symposium occupies 130 pages in *Pharmacological Reviews*.

Prof. K. M. G. Siegbahn

THE discovery of the diffraction of X-rays by crystals, by Laue, Friedrich and Knipping in 1912, opened up two main avenues in physics—the investigation of the structure of matter on the atomic scale, and the study of the structure of atoms themselves. This latter subject originated in the work of Moseley, but in its detailed exploration and development the name of Siegbahn is pre-eminent; he made it his aim to measure as precisely as possible the wavelengths of all the lines in the X-ray spectra of the elements, and his results gave complete support to the Bohr model of the atom and enabled orbital energies to be precisely measured. He verified the existence of Barkla's *K* and *L* radiations, and discovered a further series of lines—the *M* radiation. His work was carried out with typical Swedish thoroughness; he worked to an accuracy of a second of arc when others were satisfied with minutes; he made X-ray tubes which served as models for other departments; he made significant contributions to the design of vacuum pumps, in particular the molecular pump. All types of precision instruments seem to delight him. His own work reached a peak in 1916; but since then he and his various schools at Lund, Uppsala and Stockholm—where he was made professor of physics in 1920, 1923 and 1930, respectively—have exerted a profound influence on the subject of the spectroscopy of X-rays, particularly, in recent years, of soft X-rays. His book, "Spektroskopie der Röntgenstrahlen", which appeared in 1924 and was translated into English in 1925, is still the standard text-book on the subject. Prof. Siegbahn was awarded the Nobel Prize for Physics in 1924, the Hughes Medal of the Royal Society in 1934 and the Rumford Medal in 1940. It is pleasant that his connexions with Britain should now be strengthened by his election as a foreign member of the Royal Society.

Prof. Otto Struve

PROF. OTTO STRUVE is of the fourth generation of distinguished astronomers. He is a Gold Medallist of the Royal Astronomical Society, as were his great-grandfather, his grandfather and his uncle before him. His father was professor of astronomy in the University of Kharkov and died in 1920. In 1923 Otto Struve published his first astronomical paper on "The Double Star 9 Argus", from observations made with the Bruce spectrograph of the

Yerkes Observatory. From then onwards there has flowed from his pen a series of papers on spectroscopic binaries, the radial velocities of *B*-type stars, the relation between the intensity of the interstellar *K* line with stellar distance, and the absolute magnitudes of *B*-type stars; the contours of lines in rapidly rotating stars was also examined by him. Other subjects that he has treated in numerous papers have included shell stars and the dilution of radiation from a central star passing through outer layers of gas, stars with peculiar spectra, an explanation of anomalies in the spectra of binary stars in terms of streams of gas passing between the stars, and the brightness of galactic nebulae. His output has been enormous despite heavy administrative labours as director of the Yerkes Observatory since 1932 and in addition of the McDonald Observatory since 1939. He has recently retired to a less strenuous (administratively speaking) post as director of a research department in the University of California at Berkeley, but happily he continues to publish his researches. He is at the moment president of the International Astronomical Union.

American Academy of Arts and Sciences

At the annual meeting of the American Academy of Arts and Sciences, held in Boston on May 12, Prof. J. E. Burchard, professor of humanities and dean of the School of Humanities and Social Studies, Massachusetts Institute of Technology, was elected president of the Academy. The following, among others, were elected foreign honorary members: Prof. N. F. Mott, Cavendish professor of experimental physics, University of Cambridge; Sir Edward Bullard, director of the National Physical Laboratory, Teddington; Sir Harold Jeffreys, Plumian professor of astronomy and experimental philosophy, University of Cambridge; Prof. A. von Muralt, professor of physiology, University of Berne; Dr. W. J. Schmidt, director of the Zoological Institute, Giessen; and Sir John Davidson Beazley, professor of classical archaeology, University of Oxford.

The University of Hull

At a meeting of the Privy Council on May 13, official notification was given that H.M. the Queen had approved of the granting of a charter constituting and founding the University of Hull. The University College of Hull was founded in 1927 by the Right Hon. T. R. Ferens and was opened to students on October 11, 1928. In 1952 there were 917 full-time and 68 part-time students, 108 postgraduate students taking the certificate in education and 21 engaged in research. The first chancellor of the new University will be the Right Hon. Lord Middleton, president of the present University College; and the first vice-chancellor will be Mr. J. H. Nicholson, principal of University College. Those students at Hull who are sitting for their final degree examinations this year will take those of the University of London; present first- and second-year students will be given the option of taking either the London or the Hull degree; all new entrants must take the Hull examinations.

Gilbert White Memorial Fund Appeal

"THE WAKES", Selborne, former home of Gilbert White, "father of English natural history", has recently come into the market. Colonel J. D. Bibby, the owner, has generously consented to give a number of residents in the area the first refusal of the property,