

of which he published in the *Denkschrift* of the Academy.

Wettstein's chief contributions to botanical knowledge lay in the application of principles of phylogeny and morphology to taxonomy. His monograph of *Euphrasia* (1896) was an intensive study of the species, and their origin and affinities, especially in relation to their geographical distribution. He also developed the idea of *Saisondimorphismus*—the evolution of early and late flowering forms of one stock—as a source of new species. A similar study of a group of European gentians appeared in the following year. He had previously (1891) contributed accounts of the families Solanaceæ and Scrophulariaceæ to the "Pflanzenfamilien", and a "Beitrag zu Flora Albaniens" was published in 1892 as a volume of the "Bibliotheca Botanica". He was a good draughtsman and his botanical contributions are illustrated largely by himself. To botanical students, Wettstein is familiar as the author of a widely used "Handbook of Systematic Botany" (1901-8); he attempted to derive the Angiospermous flowering plant from the Gymnosperms through the Gnetales, regarding *Casuarina* as the most primitive existing Angiosperm. The theory was an ingenious one, but has not been generally accepted.

Wettstein was honoured by his fellow-countrymen

and also received many marks of recognition from European and overseas societies and institutions. He was elected foreign member of the Linnean Society of London in May 1914.

A. B. RENDLE.

WE regret to announce the following deaths:

Mr. M. M. Pattison Muir, senior fellow of Gonville and Caius College, and formerly prælector in chemistry in the University of Cambridge, on Sept. 1, aged eighty-two years.

Prof. A. S. Pringle-Pattison, emeritus professor of logic and metaphysics in the University of Edinburgh, on Sept. 1.

Dr. Droop Richmond, chief analyst to Boots Pure Drug Co., Nottingham, for sixteen years, on Aug. 26, aged sixty-four years.

Dr. Per Axel Rydberg, for the last thirty-two years curator of the New York Botanical Garden in the Bronx, on July 25, aged seventy-one years.

Dr. Louis W. Sambon, a pioneer worker in tropical medicine, on Aug. 31.

Col. the Hon. Milo G. Talbot, C.B., who was awarded a Royal Medal of the Royal Geographical Society in 1909, known for his surveys of the north-west frontier of India and Anglo-Egyptian Sudan, on Sept. 3, aged seventy-six years.

News and Views.

THE very personal appeal of the problems of the internal secretions is sufficient guarantee that the valuable résumé by the master in this subject which appears as a Supplement to this week's issue of NATURE will be widely read. Both author and subject came into being at about the same time and both have grown and developed side by side. During the eighty odd years of a fruitful scientific life, Sir E. Sharpey-Schafer has not only witnessed the change of view regarding the basis of animal behaviour but also he has played a prominent part in bringing about this broader basis. It is being realised more and more that racial and individual characteristics are not solely the expressions of an inherited nervous system but are also dependent, though to a lesser degree, on the development and efficiency of the organs of internal secretion. Many unwarrantable assertions appear from time to time regarding the part played by these special glands in the determination of personality, and until further information concerning their variations with age, climate, and habitat are available, such statements must continue to remain of a highly speculative nature. As in all subjects, during the constructive period, some confusion creeps into the nomenclature, but up to the present no better term has been introduced to connote an internal secretion than the word 'autacoid' proposed by Schafer to express the drug-like action of such a chemical regulator; it is more accurate though less euphonic than the term 'hormone' introduced by Starling, which was origin-

ally intended to suggest excitation only and would thus exclude depressing autacoids.

THE methods of studying these autacoid substances are based largely, first of all, on the loss or removal of the particular gland, with observation of the resulting deficiency disease set up, and secondly, with the cure of the disease by grafting or feeding with the gland from a healthy animal, or alternatively by injection of an extract of the gland, and lastly by administration of the active chemical principle when this is known. The method which has been most extensively used and has proved the most fertile in ascertaining important facts is the injection of extracts into animals and into man. This technique was not used much until Schafer, working in conjunction with Oliver, discovered that extracts made from the adrenal bodies give rise—when injected into the veins of an animal—to a very great increase in blood pressure. It is worthy of mention that all the fundamental facts were noted by Schafer in his early papers. In his work with Oliver he observed that one other gland extract besides that of the adrenal, namely, the pituitary, also contained a pressor principle, and an extract of this gland is now widely employed by obstetricians for the arrest of hæmorrhage after childbirth. The account of the interrelationships of the organs of internal secretion given by Schafer does not warrant the present-day wholesale dissemination of poly-glandular preparations coming from foreign drug manufacturers.