

Všeobecná Botanika

(General Botany.) By Prof. B. Němec and Dr. L. Pastýrik. Pp. viii+456. (Bratislava: Academia Scientiarum et Artium Slovaca, 1948.) 360 crowns, or 36s.

THE publication by the Slovak Academy of Arts and Science of the first modern botany in the vernacular is a landmark in the development of science in the eastern half of Czechoslovakia. In Bohemia, Presl's "Rostlinopis" appeared more than a hundred years ago, and was followed at intervals with other noteworthy Czech botanical works that could always stand comparison with similar books of other countries. But in Slovakia science has long been neglected. Its only botanist of international renown was J. L. Holuby (1836-1923), and though his voluminous writings covered a span of seven decades, he is known outside Slovakia only by his contributions in German, especially his "Flora of Trenčín County", which showed how rich in plant treasures this part of Central Europe is.

A Slovak university was opened at Bratislava in 1919; but not until 1945 did it include a faculty of science. In that year Prof. B. Němec accepted an invitation to install a department of botany, and in the short space of three years a promising school has been established. The lack of Slovak text-books is acute; but if all that are published maintain the clarity and standard of Němec and Pastýrik's "General Botany", Slovak students will indeed be fortunate. If they master this treatise they will have gained a wide and up-to-date knowledge of botany and plant physiology. The book is divided into three unequal parts which deal with general biological principles, the plant cell and the anatomy of plants. The third, and by far the largest, part includes sections on the morphology and reproduction of various types of cryptogams and flowering plants. There are more than four hundred illustrations, many having been specially drawn by Miss Tesařova. Most of the photographs were taken by Dr. R. Doht, but some are by Prof. S. Prát and other botanists. Few British botanists would understand the text, but many would admire the illustrations. J. G. F. D.

A First Book of Meteorology

By Arthur J. Starr. Pp. 86. (London: George G. Harrap and Co., Ltd., 1949.) 5s. net.

MR. A. J. STARR'S little book is a useful introduction to weather study, well illustrated and, on the whole, clearly written. It opens with a description of the composition, pressure and temperature of the atmosphere, and of the principles of mercury and aneroid barometers, though the description of the aneroid is rather confused. The next chapter deals with wind, including the Beaufort scale, but there is no mention of gustiness; a photograph of the record from a pressure-tube anemometer would have been a useful addition. The chapter on clouds is well illustrated by photographs; those on weather and visibility call for no comment. Then follows a short account of observations and measurements, with some rather crude descriptions of instruments. As the Fortin and Kew barometers are mentioned by name, it might have been worth while to explain briefly the difference between them, and a simple illustration of a vernier would have been useful. More serious is the complete omission of any reference to maximum and minimum thermometers; although a table of frost-days is included, no indication is

given of how they are defined, and the reader is left to infer that a frost-day is one with a deposit of hoar-frost. This section might have been expanded at the expense of some of the information about the synoptic code and plotting, which is of less direct interest to the beginner. The chapters on pressure systems and weather forecasting are good and useful.

A Scientist with Perry in Japan

The Journal of Dr. James Morrow. Edited by Allan B. Cole. Pp. xxvi+307+8 plates. (Chapel Hill, N.C.: University of North Carolina Press; London: Oxford University Press, 1947.) 22s. net.

THE United States in 1852 sent an expedition under Commander Perry to Japan, followed by another vessel the next year. The expedition was really an expression of American expansion as a Pacific Power, whatever may have been its explanation at the time. It marked, too, the emergence of Japan from the centuries of exclusion from contact with the outer world and its opening to American-European trade. Among the many men of science who applied to join this expedition, J. Morrow was chosen, and sailed to join his ship in 1853. The choice was a wise one. He was to take to the East, chiefly Japan, seeds, plants and agricultural implements, and to collect those of Japan for American nurseries and possibly for the improvement of American agriculture. All this he assiduously did in very limited time ashore and made some of the first studies on monsoon agriculture. His journal was to have been published with Perry's official narrative about a century ago; but somehow or other it was overlooked until to-day. It is now published with a few notes and lists of seeds and implements brought from Japan and those given to the Emperor. A few letters from Morrow are also printed. The book gives vivid impressions of Japan and several smaller islands as they were before European influence made its mark.

Techniques générales du laboratoire de physique
Publiées sous la direction de Prof. J. Surugue. Vol. 1. Pp. 433. (Paris: Centre National de la Recherche scientifique; London: H. K. Lewis and Co., Ltd., 1947.) 900 francs; 22s. 6d.

THIS paper-backed volume consists of nine chapters, each written by an expert in the particular field. The first chapter deals with the principles of construction, kinematic design of apparatus, and the mechanical properties and methods of working of constructional materials. Glass-blowing; vacuum technique; production, measurement and control of high temperatures; optical technique; light sources and filters; photo-electric cells and their applications; recording mechanisms; and voltage and current regulation are the subjects of the other chapters. The text is clear, well set-out and amply illustrated by line drawings. There is an excellent index, which makes the book extremely useful for rapid reference.

For those laboratory workers and research workers familiar with French technical terms this book should certainly be given a place on the laboratory shelf alongside Strong's "Modern Physical Laboratory Practice" and similar books. Some of the English spelling in the bibliographies at the ends of chapters may raise a smile, and the occasional omission of units from a table may cause some irritation; but these are minor faults of no real consequence in a volume packed with useful practical information.