

Kungl. Svenska Vetenskapsakademien:

Förhistoria, Grundläggning och Första Organisation. Av Bengt Hildebrand. Pp. xv+672. Noter, Bilagor M.M. Pp. v+673-886. (Stockholm: Kungl. Svenska Vetenskapsakademien, 1939).

IN these two volumes, Dr. Hildebrand gives an account of the inception, foundation and early years of the Royal Swedish Academy of Sciences, which is now two hundred years old. Already in the seventeenth century the spirit of research in the natural sciences was afoot, and the tendency to do away with Latin in place of the worker's national language was gaining ground. There was, however, a strong utilitarian bias in scientific work. The Royal Society of London and the Academy of Science of Paris showed the way to pure research. The foundation of these and later that of the Academy of Science of Russia prepared the way in Sweden. A few attempts to found learned societies failed, for the universities still were dominated by the dead languages, but in 1728 the Royal Society of Sciences was founded in Uppsala. About the same time the capital saw the start of academies of music, painting and literature, and in 1739 the Academy of Science was founded on the model of the Royal Society and the French Academy of Science; two years later it received a royal charter.

Among the founders was Linnæus, who became its first president. The early bias of the academy towards economic problems was not maintained beyond the beginning of the nineteenth century, and up to that time much attention had been paid also to work in mathematics and natural science. In 1813 agriculture founded its own academy, and under Berzelius the Royal Swedish Academy devoted itself more and more to natural science, giving up humanistic and practical studies.

Dr. Hildebrand traces in detail all these changes and the background against which they took place, and he gives a long account of the work of all the founders, as well as the original constitution and descriptions of the library and museum. There is an exhaustive bibliography on all aspects of the work.

R. N. R. B.

Analytical Processes:

a Physico-Chemical Interpretation. By Dr. T. B. Smith. Pp. viii+470. (London: Edward Arnold and Co., 1940.) 18s. net.

DURING the past ten years, many important advances have been made in physical chemistry, and it is not surprising, therefore, that a new edition of Smith's "Analytical Processes" has now made its appearance. This new edition incorporates recent developments, and some sections of the first edition dealing with fundamental relationships have been dropped.

To appreciate this book fully, the reader must be fully conversant with the basic principles of physical chemistry, and the volume is therefore of particular value to senior students or to those making physical chemistry their special study. The author's object is to give full scientific explanations of the theories underlying analytical processes, since only those who have a thorough knowledge of such theory can ever

approach, with any hope of real success, the many new problems arising in the examination of minerals and of new industrial products. Further, such knowledge is essential when sources of error in analytical processes have to be elucidated, minimized or removed.

This authoritative and advanced treatise is indispensable not only to those who are engaged in a university course, but also to technical chemists whose duties lie in industrial chemical analysis.

Practical Histology and Embryology

By Dr. Nellie B. Eales. Pp. xi+111. (London: Macmillan and Co., Ltd., 1940.) 3s. 6d. net.

THIS little book provides an excellent guide to practical work for first-year students in histology and vertebrate embryology. Dr. Eales is an experienced and successful teacher and knows well the pitfalls that lie in the way of the beginner. The simplest methods and a small number of fixatives and stains have been chosen out of the bewildering variety that are at the disposal of the more advanced worker. Directions are given for preparing simple histological injections and for the elementary technique of mammalian embryology, both of which are usually omitted from the first-year course. It may perhaps be suggested that the simplification of methods might perhaps have been carried a little further with advantage; that rough hand-cut sections might have been substituted oftener for the more elegant products of the microtome. Many beginners, and even some more advanced students, have great difficulty in relating the two-dimensional picture presented by a microtome section to the three-dimensional structure of a tissue or an embryo. Sections cut, however inexpertly, by the student himself, do help him over this difficulty.

Very few slips have caught the eye of the reviewer, but Canada balsam is not crystalline (p. 6), nor are teeth "epidermal products" (p. 63).

W. T. CALMAN.

Modern Diagnosis

Edited by Sir Humphry Rolleston and Dr. Alan Moncrieff. ("The Practitioner" Handbooks.) Pp. 286. (London: Eyre and Spottiswoode (Publishers), Ltd., 1940.) 12s. 6d. net.

THE editors are to be congratulated on the choice of the twenty contributors to this volume, which consists of two parts, the first dealing with clinical diagnosis and the second with laboratory and special diagnosis. With the exception of an article specially written for the book by Dr. C. J. C. Britton on the technique of simple blood examinations and methods for collection of blood, all the contributions have previously appeared in the *Practitioner*, but have been revised and brought up to date. Although the work covers a wide range of subjects including neurology, dermatology, cardiology, pædiatics, gastro-intestinal disease, diabetes and chronic rheumatism, it makes no claim to discuss the whole field of medicine, but deals only with those subjects in which diagnosis is most difficult.

The book, of which the text is liberally interspersed with illustrations, is admirably suited for the general practitioner and senior student.