

on this important section of organic chemistry is now collected and classified in one book, which includes the subject matter from Vol. 6 of the last edition on alkaloids generally, and on the volatile bases of vegetable origin, as well as the subject matter from Vol. 7 on the vegetable alkaloids. Special sections, arranged alphabetically, owing to the difficulty of chemical classification, are given to products of definite commercial importance in connexion with food and drugs (for example, caffeine, cocaine, nicotine, opium, etc., receive separate treatment). The other known alkaloids are systematically dealt with in a general introduction, again with alphabetical grouping. In the introduction the reactions and properties of the vegetable alkaloids as a group are also reviewed.

In contrast with the ordinary text-book, the drafting of a comprehensive technical thesis of this nature, with its great mass of specialised information, requires the assistance of many experts to make the venture a success. As a result, we find each section written by a specialist in that particular field. The whole work is ably edited by Mr. C. A. Mitchell, who also contributes the chapter on strychnos alkaloids.

There is lack of complete uniformity in the revision of material from the various editions of the British and foreign pharmacopœias; in some instances the latest data are not given, and there is want of agreement between the statements recorded. A number of typographical errors have also been noted, and in a few instances information that would be expected in such a volume has not been found. These slips and omissions, however, are probably not more than might be expected in a work of this nature. The book, which is printed in the United States, is excellently produced with regard to paper, type, and binding. J. REILLY.

*The British Journal Photographic Almanac and Photographer's Daily Companion, with which is incorporated The Year Book of Photography and Amateurs' Guide and The Photographic Annual, 1930.* Edited by George E. Brown. Pp. 784 + 64 plates. (London: Henry Greenwood and Co., Ltd., 1930.) 2s. net.

THIS welcome annual (for it is in no sense an almanac) again makes its appearance. The general arrangement is very much the same as heretofore. As this is the twenty-fifth year in which the present editor has had the arranging of it, the article which he contributes consists of his personal reminiscences (or some of them), which will be read with much interest. But we think that he has overstepped the mark to the detriment of the memory of Sir William Abney in stating that his various text-books display a pronounced disinclination to deal with the work of other investigators, and that therefore we have in English no comprehensive work similar to those of Eder in Germany and Fabre in France. Abney never attempted such a comprehensive work, although the editor states that "he was the one man to supervise" it, and perhaps the editor himself gives the reason when he says that "it was an obvious effort to him to present a subject in

simple terms". If Great Britain "suffered from the Abney predominance", as stated here, that surely was the fault of his contemporaries, as this is a free country.

The volume includes the many items that we are accustomed to find in it, tables, formulæ, lists of addresses, new apparatus, and so on, and excellently reproduced gravure copies of photographs.

*Essentials of General Physiology.* By Prof. Eric Ponder. Pp. viii + 497. (New York, London and Toronto: Longmans, Green and Co., Ltd., 1929.) 15s. net.

THIS is a sound and clearly written text-book which should prove useful to students beginning physiology. The opening chapters, of an introductory character, are advisedly concerned with a plain description of surface phenomena, colloids, permeability, dissociation, and the action of enzymes; the student may already be conversant with these aspects of physical chemistry, but his interest will be maintained by the well-chosen biological examples. Equipped with these elements of physical chemistry, the reader is better able to appreciate the actual physical and chemical basis of the processes underlying vital phenomena.

The contraction of muscle, conduction in nerve, secretion, tropisms, digestion, respiration, and circulation are the branches selected by the author for treatment from the physico-chemical point of view. With the rapid and many-sided development of physiology, the subject is becoming so unwieldy that, if it is to be approached from a scientific point of view, there will have to be a complete inversion of the present order of study; this book constitutes a step in the right direction, since a grasp of the underlying general principles should precede a descriptive study of the phenomena of the usual human and mammalian physiology. As the book is intended mainly for beginners, perhaps more illustrations might be of value; this, however, is not a serious deficiency since the text is so lucid.

*Les paysages catalans: leurs aspects, leur structure et leur evolution.* Par Marcel Chevalier. (Aspects physiographiques de l'Espagne.) Pp. vi + 172 + 48 planches. (Paris: Albert Blanchard, 1929.) 30 francs.

THERE is comparatively little material available on the details of the geography of the Iberian peninsula. This study of the north-eastern corner of Spain is therefore welcome, although the author has dealt with little outside the purely physical aspects. Apart from the comparatively recent plains, M. Chevalier recognises three structural divisions in the mountains of Catalonia: The Pyrenees in the north with their exposures of ancient crystalline and palæozoic rocks; then the sierras of secondary and tertiary rocks of a newer topography with no evidence of glacial action; and then, lastly, the worn-down remnants of old Hercynian foldings. Structure and surface features are fully discussed. There are many illustrations and sketch maps. The book is an enlarged edition of a volume in Catalan that appeared recently.