

Short Notices

Bentley and Driver's Text-Book of Pharmaceutical Chemistry. Revised by Dr. J. E. Driver. Second edition. Pp. xv+538. (London: Oxford University Press, 1933.) 16s. net.

THE second edition of this book was rendered necessary by the publication of the 1932 "Pharmacopœia", and is a great improvement on the first edition. The book consists of an introduction, a section on analytical methods, one on inorganic compounds, one on organic compounds and an appendix.

The best two chapters in the book, in the section on analytical methods, are those written by Dr. Prideaux and dealing with hydrogen ion concentration and the methods for determining it. It is not often that this subject is dealt with in such a clear and lucid manner. In the description of the methods of analysis of carbon compounds there are one or two omissions. No mention is made of accelerators for the Kjeldahl method for nitrogen and the only method described for halogens is that of Carius, though the "British Pharmacopœia" uses the method of Piria and Schiff for trichloroacetic acid.

The reviewer has found that students of pharmacy have generally a limited knowledge of organic chemistry, and to the majority of them this is the most difficult part of pharmaceutical chemistry. One of the stumbling blocks is the correct understanding of the ethylenic linkage, for unless this is very carefully explained, they imagine it to be a strong point, instead of a weak one in a chain of carbon atoms. It would have been a great help if a short description of Baeyer's strain theory could have been incorporated in the chapter dealing with unsaturated hydrocarbons.

The chapter on glucosides contains no reference to the digitalis group or to the newer term 'glycosides'. The article on vitamins gives a fairly good idea of the present position regarding these substances, but implies that the sterols are the only unsaponifiable alcohols. Bibliographical references are given at the foot of each page and these should prove useful to those students desiring further information. The illustrations are numerous and for the most part useful.

It is stated in the preface that the book is a textbook for those studying for the examinations in pharmaceutical chemistry of the Pharmaceutical Society and similar examinations. As such it fulfils its mission.
S. G. S.

Erinnerungen: Bekenntnisse und Betrachtungen. Von Gottlieb Haberlandt. Pp. vii+243. (Berlin: Julius Springer, 1933.) 10.80 gold marks.

THIS little book, as its sub-title suggests, comments in fresh and lively fashion upon the topics that pass inevitably in review in these reminiscences of eighty years spent largely in the service of botany in Germany. They thus reveal in pleasant fashion the striking personality of its author, who is best known

in England as the author of "Physiological Plant Anatomy".

It is amusing thus to learn that Haberlandt became a botanist in the first place because the external appearance of Julius Wiesner's college in Vienna for the study of anatomy and physiology of plants was more attractive than that of the college in which studies of German language and literature were proceeding, and secondly because the necessary dissection made the study of structure in the animal world less congenial. In his early days, the great textbook of Sachs makes the strongest impression, but the young doctor does not go to Würzburg but to Schwendener at Tübingen, whose monograph upon the mechanical principle in the anatomical structure of Monocotyledons has just appeared. Thus early is made the link between structure and functional performance, and this line of thought is developed after Schwendener's removal to Berlin, during years as *Privatdocent* first at Vienna and then at Graz. Here appeared the "Physiological Plant Anatomy" upon which Haberlandt's fame largely rests, though with his transference to Berlin in 1910 as successor to Schwendener, a second period of activity began in which developmental physiology was more prominent. To this period belong the studies of the physiology of cell division which are still profoundly influencing botanical development, though his early suggestion of contributory 'hormones' is now giving way to less definite suggestions of 'growth substances', of which the Utrecht school would restrict the influence to an effect upon cell extension.

Many a botanical reader outside Germany will be grateful for the opportunity thus presented to share, even in this one sided way, in a discussion with Haberlandt of topics which remain of perennial interest wherever botanists are gathered together.

Field Studies in Ecology. By Dr. R. Bracher. Pp. 100. (Bristol and London: J. W. Arrowsmith, Ltd., 1934.) 2s. 6d. net.

THIS little book on practical work in connexion with plant ecology will be found very useful alike to students and to teachers of botany. Her experience in conducting field work in connexion with the University of Bristol has enabled the author to condense in a small compass all that is essential in a practical study of ecological problems. This she sets forth in a clear and concise manner, with suitable illustrations and with practical hints on methods of investigation, on mapping and on determining the various factors which influence the vegetation: light, atmospheric and soil moisture, acidity or alkalinity of the substratum. The synopsis of British plant communities in the earlier part of the volume is exceedingly well arranged and cannot fail to give the student a very clear account of the various plant communities and their constituent plants. The book can be warmly recommended to prospective students of ecology both in schools and at the universities as a handy guide to their practical studies.