

BOOK REVIEWS

features lack the precision we expect in pharmacognosy. Thus the drawing of the trichomes in Figure 37 gives little real information as to the structure of nux vomica trichomes and in Figure 34 a rare type of glandular trichome of digitalis is drawn, whereas the much more common type is omitted. However, the book does not claim to cover these "highly specialised phases of the subject" and the student or practising pharmacist who has already had some basic training in pharmacognosy will find this book stimulating, interesting and informative. The authors are to be congratulated for this refreshingly different study of vegetable and animal materia medica.

J. W. FAIRBAIRN.

QUALITATIVE ARZNEIMITTEL-ANALYSE, by Hans Mühlemann and Adolf Bürgin. Pp. 278 + Index. Ernst Reinhardt, Basle. 1951. Card-board cover, 10 Swiss francs. Linen cover, 12.50 Swiss francs.

This book is intended primarily for pharmacists and students of pharmacy as an aid to the ready identification of common medicinal substances. The opening chapters give a brief description of the more commonly employed physical and chemical techniques, including distillation, fractionation, crystallisation and sublimation, which are available for the isolation of pure substances. There follows an explanation of the way in which these methods are applicable to the examination of various types of dispensed preparation. Aqueous, alcoholic and other non-oily substances are classified together and preliminary tests are suggested for (a) reaction to litmus, (b) miscibility, (c) residue on evaporation, (d) alkaloids and bases, (e) carbohydrates, (f) ammonium salts, and (g) substances reacting with ferric chloride. Powders, tablets, pills and dragees are treated as a group and are examined for water- and alcohol-soluble substances. Special methods are described for the examination of preparations containing oils and fats, such as emulsions and suppositories. The remainder of the work is devoted to a series of short monographs describing the physical and chemical tests for the identification of a number of simple chemical and medicinal substances. These are arranged in groups of compounds, chemically related, and include alcohols, aldehydes, ketones, carbohydrates, phenols, acids, esters, ethers, organo sulphur compounds, cyano compounds, organo arsenicals, halogen derivatives, organic bases, alkaloids, sulphur drugs and a group of miscellaneous natural products. The book does not provide a truly systematic approach to the problem of identifying organic medicinal substances, though it does fill a need for guidance in the use of the methods which are available for the isolation and identification of the active ingredients of dispensed medicines.

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BOOKS RECEIVED

ENZYMATISCHE ANALYSE by Herman Stetter. Pp. 196 and Index. Verlag Chemie, GMBH., Weinheim/Bergstr. 1951. DM. 17.50.

PAPIERCHROMATOGRAPHIE by Friedrich Cramer. Pp. 81 with 47 illustrations. Verlag Chemie, GMBH., Weinheim/Bergstr. 1952. DM. 9.80.

PHYSICAL BIOCHEMISTRY (2nd Ed.) by H. B. Bull. Pp. viii + 334 and Index. Chapman and Hall, London, 1951, 46s.

THE VITAMIN B COMPLEX by F. A. Robinson. Pp. xi + 629 and Index. Chapman and Hall, London, 1951, 60s.