

BOOK NOTICES AND REVIEWS.

Die Fabrikation Pharmazeutischer und Chemiscitechnischer Produkte. By DR. J. SCHWYZER, published by Julius Springer, Berlin, Germany. Price RM. 42.

The author is known to pharmacists by his work on the alkaloids. He states that the book is not an encyclopedia of chemical technique, but a large number of manufacturing processes are thoroughly discussed.

The book is divided into six parts; namely, Inorganic Products, Aliphatic Products, Aromatics, Alkaloids, Miscellaneous Products, and a division dealing largely with methods and apparatus. The work of the author on alkaloids has been embodied in this volume.

In the first chapter a number of pages are devoted to bismuth and its preparations, the bromides, iodine, iron and mercury compounds; preparations of silver require a number of pages of the second chapter. The details of the manufacture of such chemicals as sulphonal and related chemicals are discussed. The chapter on aromatics requires nearly forty pages, of which ten pages are given to vanillin. Other items in the chapter are, acetanilid, anesthesin, benzaldehyde, salicylic and tannin compounds.

The chapters on alkaloids is an important one; about 130 pages are given to this. Under caffeine some attention is given to caffeine-free coffee.

Under miscellaneous subjects manufacture and properties of charcoal are considered, and distillation receives considerable attention.

Under general subjects various methods of manufacture and apparatus are considered.

The work, of course, has greatest value for the manufacturer, and as a book of reference has value in the libraries. The author has drawn on his experience and information in the preparation of the book; it evidences care and knowledge of the subjects, and the makeup, binding, etc., of the volume are very good.

Textbook of Pharmacy. By I. V. STANLEY STANISLAUS, B.Sc., Ph.G., Ph.D., Pharm. D. Of the Faculty of Brooklyn College of Pharmacy of Long Island University, Special Lecturer on Drug Chemistry, Temple University School of Pharmacy. D. Van Nostrand Company, Inc., New York, N. Y., 1931. xii + 736 pages. Illustrated. 6 x 9 in. Price \$7.00.

This book is intended as a textbook on the principles of pharmacy (no attempt being made

to cover commercial pharmacy or to outline a definite laboratory course) and as a reference book for the pharmacist and physician. The illustrations are grouped at the back of the book.

The book is divided into six parts. Part I, General Considerations of Pharmacy, included definitions, weights and measures, the balance, pharmaceutical arithmetic and thermometry. Part II, Theoretic Pharmacy, deals chiefly with the fundamental operations of pharmacy, such as comminution, solution, clarification, evaporation, distillation, sublimation, extraction, expression, etc., and includes also a discussion of the chemical constituents of plant drugs. Part III, Official Preparations, covers the various types of pharmaceutical preparations. Each type of preparation, such as elixirs, syrups, etc., is described and tables are given showing the Latin title, English title and synonyms, amounts of principal ingredients in 100 cc. or Gm., and usually some comments as to uses and dose. Part IV, Pharmacology, opens with the therapeutic classification of drugs, and definitions of chemical terms followed by syllabic tables of drugs official in the U. S. P. X and N. F. V and the newer remedies, including "most of the items passed upon by the Council of Pharmacy and Chemistry of the American Medical Association." Biologicals, organic drug assays and toxicology are also discussed. Part V, Magistral or Dispensing Pharmacy, includes chapters on The Art of Dispensing; Examples of Prescriptions with Incompatible Ingredients, Including "Types" of Pharmaceutical Preparations; Homeopathic Pharmacy; Hydrogen-Ion Concentration; Outline of the General Methods for Preparing Salts; Methods of Preservation; Relationship between Chemical Structure and Physiological Action; Pharmacal Problems and Exercises. Part VI includes a general summary of state pharmacy laws, with a more detailed discussion of the New York laws. The federal laws and regulations concerning narcotics and alcohol are summarized.

One of the strong points of the book is the effort which has been made to present pharmacy from the standpoint of modern science, as evidenced by the discussion of colloids, hydrogen-ion concentration, relationship between chemical structure and physiological action, etc. The chapter on extraction of vegetable drugs is particularly well presented. Among the features especially helpful to the practicing

pharmacist are the tables of maximum doses and of newer remedies, and the glossaries of uncommon words. The various tables, including one on group doses, are convenient for review by the student. The book is printed in clear type on good paper and is of convenient size.

Typographical errors are rather numerous, even for a first edition; some of these would not readily be detected by the student, as for example on page 213, lines 6 and 13, where "sodium chlorate" is twice specified in place of "sodium chloride." Likewise on page 216 Compound Acetanilid Powder is listed as containing sodium carbonate, rather than the bicarbonate. On page 209 the synonym "I. Q. and S." is given for Elixir of Ferric Pyrophosphate, Quinine and Strychnine, rather than for the Elixir of Iron, Quinine and Strychnine as specified in the N. F. In the table of official collodions on page 292, Collodium Cantharidatum is listed, though it is no longer official, and the following N. F. collodions are omitted: Collodion of Sulphonated Bitumen; Compound Salicylic Collodion. The table of U. S. P. Solutions is omitted entirely, although a table of N. F. solutions is given. On page 307, the maximum dose of arsenous acid is given as " $\frac{1}{6}$ gr.; 0.1 Gm." rather than as " $\frac{1}{6}$ gr.; 0.01 Gm."

A historic fallacy, which originated with a prominent American pharmacist of a generation ago, is perpetuated on page 167, where it is stated that in supersaturated sugar solutions made by heat, the crystallization which takes place on cooling "usually goes beyond the point of saturation, yielding a solution less than saturated."

A desirable feature of the book is the encouragement given to direct use of the U. S. P. and N. F. by the student, by omission of the quantitative formulas of these books, the discussion being thus directed chiefly to fundamental principles and to comments.

This book will be a useful addition to any pharmaceutical book shelf, and will be of interest to those teachers who have felt that pharmacy books have been too unwieldy, with too much repetition of material which is in the U. S. P. and N. F. and which should be sought there by the student.—WILLIAM J. HUSA.

Recent Advances in Analytical Chemistry, Vol. II, Inorganic. By C. AINSWORTH MITCHELL, editor, and NORMAN EVERS, S. G. CLARKE, W. R. SCHOELLER, A. T. ETHERIDGE, BRYNMOR JONES, A. R. POWELL, JANET W.

BROWN and J. W. H. JOHNSON, contributors. Published by P. Blakiston's Son and Co., Inc., Philadelphia, 1931. XIV + 452 pages, 26 illustrations. Price \$3.50.

The literature pertaining to advances in analytical chemistry increases so rapidly that it is impossible for the busy analyst to keep informed of progress except in a very specialized field. This volume prepared under the editorial direction of one so well qualified as the editor of *The Analyst* and contributed to by a number of experts in restricted fields should be of value to all persons engaged in practical analysis or in the teaching of analytical chemistry. Considered in conjunction with Volume I published in 1930 and dealing with recent advances in analytical organic chemistry, the work comprises a comprehensive survey of the progress made in the development of qualitative and quantitative methods during the past ten years. In many cases, concise working directions of new methods are given.

The subject matter of the book is subdivided into 16 chapters. Thirteen chapters are given over to the consideration of the detection and determination of the common and rare elements and gases. One chapter is devoted to each of the following subjects: Hydrogen-ion concentration, microchemistry, and water and sewage analysis. In the chapter on microchemistry, the progress in the analysis of inorganic as well as organic substances is reviewed. In the chapter on water and sewage analysis, an extended list of the botanical and zoölogical organisms in relation to pollution is given which is probably more complete than any such list found in references written in the English language.

Working details of new qualitative and quantitative methods are not given in every case, but a critical survey of published work is presented with very numerous references to the original literature. A bibliography is included after the consideration of each subject which might be improved by giving the name of the publisher.

The advances in analytical chemistry surveyed in this and in the preceding volume are made available in convenient form and at an opportune time for study by those engaged in the revision of the chemical monographs of the United States Pharmacopœia and of the National Formulary.—GLENN L. JENKINS.

Quantitative Chemical Analysis, an Intermediate Textbook. By FRANK CLOWES and J.