

## BOOK NOTICES AND REVIEWS.

*The British Pharmaceutical Codex*, an Imperial dispensatory for the use of medical practitioners and pharmacists. By the direction of the Council of the Pharmaceutical Society of Great Britain. Published by the Pharmaceutical Press, 72, Great Russell St., W. C., London.

This work represents the third edition of the Codex. As indicated above, the book simulates the dispensaries; it is, however, more convenient to use and describes by far a greater number and variety of preparations. The style of the book is not changed from the original edition, a tribute to the painstaking efforts of the pioneers in this valuable work.

It contains 1669 pages, of which more than 100 are given over to the index. The book comprises two principal parts. The first part is devoted to a description of simple drugs. The second part, styled the British Pharmaceutical Codex Formulary, covers some 340 pages presenting formulas for a great number of preparations. In the monographs of the simple drugs a decided advantage is found in having printed in bold-face type the words "incompatible," "administered," "poisoning," "internally," and "external," which direct attention directly to specific information sought without the necessity of going through the entire article.

Another most helpful feature is found following the monograph of the drug in a list of preparations into which the drug enters. Each preparation is described in considerable detail as to the strength, method of preparation, dose and synonym. After the monograph of Opium no less than thirty-two of its preparations are listed.

In the second part of the book, the Formulary, may be found directions for the preparation of baths, ampuls, nasal bougies, medicated gauze and cotton, eye lotions, surgical dressings, bandages and enemas, which are not commonly given in similar books.

The quantities in the several formulas are given first in the metric system, then in the Imperial system. It has a similar dual system of weights and measures in the formulas that provoked so much criticism of our third National Formulary. The Codex Revision Committee evidently seeks to forestall such criticism by printing in the Formulary a statement, that "in certain instances there may not be exact correspondence between the two sets of figures."

After the several recipes comes a collection of formulas for test solutions and microscopical stains; a table of coefficients of expansion for a number of liquids; an extensive pharmacological and therapeutic index; and about five pages devoted to proprietary trade-names and their chemical equivalents.

For a volume of such proportions it is gratifyingly free from typographical errors and imperfections.

The work of revision has been admirably done and reflects much credit on the Revision Committee.

The British Pharmaceutical Society merits the gratitude of medical men and pharmacists for this distinct addition to the reference books for the allied professions.

CLYDE M. SNOW.

*Surface Tension and Surface Energy and Their Influence on Chemical Phenomena.* By R. S. Willows, M.A., D.Sc., and E. Hatschek. 3rd Edition, viii + 136 pages with 25 illustrations. P. Blakiston's Son and Co., Philadelphia, 1923.

The third edition of this small volume while continuing to carry the two names of the original authors is the work of Willows alone. His various contributions to the experimental and mathematical development of our knowledge of surface physics and chemistry gives his word the weight of authority.

As in the older editions this volume is divisible roughly into four sections, a discussion of the concepts of surface tension and surface energy, a discussion of the relations between surface tension and the physical and chemical constants of the materials exhibiting such, a special chapter on surface tension as influenced by the electric charge and a final one illustrative of the rôle of surface energy in various physical and chemical processes as those of emulsification, dyeing, tanning and flotation.

The final chapter is by far the most clearly written in the volume and might well have been put first. While the original authors have limited their mathematics "to what is absolutely essential" it still constitutes the bulk of the volume. Their decision to give "few experimental details" is also not without its shortcomings. How can the critical student know that a physical principle is really a principle except as he can pick no flaw in the experiments upon which such principle is founded. Willows' additions to the third issue

include "an account of the work recently done on the properties of thin films, polarized molecules, and boundary lubrication." These turn out as excellent paragraphs on the work of Harkins, Langmuir and Hardy.

The volume will commend itself to those who wish a quick look into the field which it covers. For beginners there is lacking that gradual building up from experimental fact to law and hypothesis essential to good pedagogy; for mature students not enough is given to make the little learning not dangerous historically or critically. Willows is everywhere conscious, however, of the difficulties of his theme. Much praise must therefore be given him for his constantly expressed doubts regarding the adequacy of a given explanation and his advice to seek out the original communications of the authors whom he cites.

M. H. F.

*Chemistry*, inorganic and organic with experiments. By Charles Loudan Bloxam. 11th edition, revised by Arthur G. Bloxam, F.I.C., consulting chemist and chartered patent agent; and S. Judd Lewis, D.Sc., F.I.C., consulting and analytical chemist. With 310 illustrations. 10 x 7 inches, 832 pages, cloth. Philadelphia. P. Blakiston's Son & Co. Price \$9.00.

This volume presents a concise compilation of both theoretical and practical material including virtually every phase of chemistry. The continuous success of the work is best attested by the demands that justified the ten revisions, consequent to the first edition, which appeared in 1867.

Casual reflection, in retrograde perspective, relevant to the progress of chemical science in that intervening period of fifty-six years, must necessarily suggest to the reader a patent curiosity regarding the future extent of the advancement of chemistry fifty-six years hence! The size of the type characters has been somewhat reduced, thus accounting for the more compact form of the present volume. Eighty-three chemical elements are listed and their atomic weights tabulated in accordance with the Oxygen standard.

The work is a noteworthy exception among the small minority of recent publications of general chemistry texts, relevant to the accuracy and mature comments concerning the most recent contributions to theoretical chemistry, *i. e.*, present views on atomic structure, the quantum theory, crystalline structure, etc., and including brief notations regarding the

epoch-making endeavors of Mosely, Einstein, W. L. and W. H. Bragg and others.

The chapter on spectroscopy having been rewritten and enlarged, includes Mosely's work on the X-ray spectra, and is now equal, if not superior, to even Roscoe and Schorlemmer's exposition of that subject in their magnificent "Treatise on Chemistry"—Volume II, in so far as the inclusion and treatment of the procedure is concerned along general principles. The writers deviated from the usual course in the chapters on organic chemistry, by grouping certain of the aliphatic with the aromatic compounds. This new arrangement is readily appreciated on consideration of the facility afforded for comparison of substances of a similar order in the two divisions. The section devoted to orientation of benzene derivatives is well written, especially clear and well illustrated. Liberal space was allotted to the chemistry of percussion caps, T.N.T., and explosives in general.

The chapter including a discussion of fluorescence and phosphorescence constitutes a valuable repository of reference material along this line of scientific investigation.

Apparatus, graphs, crystalline forms, etc., are all neatly illustrated. The index is exceptionally complete with an exhaustive cross index scheme.

The volume is assuredly a valuable contribution to both technical reference and text literature and maintains if not exceeds its original purpose, which has in past years secured the confidence that has hitherto been deservedly bestowed, both in this country and abroad.

SIMON MENDELSON.

#### NEW PUBLICATIONS.

*Determination of Hydrogen Ions.* By W. Mansfield Clark. 2nd edition. 480 pp. Illustrated. Price, \$5.00. Williams & Wilkins Co., Baltimore.

*Alcohol in Commerce and Industry.* By Charles Simmonds. 119 pp. Price, 3s. net. Sir Isaac Pitman & Sons, Ltd., London.

*Inorganic Chemistry.* By F. S. Kipping and W. H. Perkin. 734 pp. Price, 8s. 6d. W. & R. Chambers, Ltd., London.

#### DEATH OF EX-PRESIDENT JOHN F. HANCOCK.

Just before completion of this issue we are advised of the death of Ex-President John F. Hancock, November 12. For sketch see Volume V, JOURNAL A. PH. A., pp. 460 and 793.