

## BOOK NOTICES AND REVIEWS.

*A Text-book of Chemistry Intended for the Use of Pharmaceutical and Medical Students.* By Samuel P. Sadtler, Ph.D., L.L.D., Virgil Coblentz, Ph.D., F.C.S., and Jeannot Hostmann, Ph. G. Fifth edition revised and rewritten. Pp. 751. Price \$5.50.

When a chemistry text-book survives twenty-four years of existence and passes through five large successive editions, there is doubtless a good reason for it, the good reason in this case being that the volume has successfully fulfilled its mission as a text in elementary chemistry for students of pharmacy and medicine.

The respective authors have had extended experience as teachers of pharmaceutical and medical students and in analytical and industrial practice, and this is exhibited in the selection and arrangement of materials and in the discussion of the particular topics considered. As a consequence the subject-matter of the volume has a distinct pharmaceutical and medical trend, a method of arrangement that will commend itself to those who have had experience in directing the chemical studies of these classes of students.

Part One, comprising something over 100 pages, is devoted to a review of the general principles of elementary physics.

While it may be contended that students should have a sufficient preparation in this branch before beginning the study of pharmacy and medicine, as a matter of fact many of the graduates even of the better class of preparatory institutions begin their professional studies with such a hazy knowledge of physics that a preliminary review of the subject is needed to enable them to enter profitably upon the study of chemistry.

This introductory review is devoted to a presentation of the general properties of matter and of the laws of physics, but with appropriate special emphasis upon such portions of the subject-matter as have a special relation to the work of the pharmacist and physician, as the specific gravities of liquids and solids, the general properties of gases, thermometry, the effects of heat on states of aggregation, electricity, light, the laws of optics, and the principles involved in the construction of the compound microscope, spectroscope and polariscope.

Part Two opens with an extended chapter on the general principles and laws of chemistry.

This theoretical introduction is well written and is as comprehensive as could be expected in a volume of its size. Among the topics considered are chemical notation and nomenclature, equations, valency, classification of the common inorganic acids and salts, reversible reactions, mass action, electrolytic dissociation, the laws of combination in simple and multiple proportions, Avogadro's hypothesis, the colloidal state, catalysis, stoicheometric calculations, etc., etc.

Though necessarily brief, the presentation of the topics dealt with in this introductory chapter is wholly satisfactory, the authors having wisely refrained from the introduction of topics for the comprehension of which the beginning student is in no wise prepared.

The remainder of Part Two is devoted to a systematic description of the non-metals and their compounds, with the description of reactions which can easily be made the basis of illustrative laboratory experiments.

The arrangement is in such sequence that each new element is considered in its combinations with the elements that have successively preceded it. The student is thus kept in constant touch with the knowledge previously acquired, and each new chapter thereby presents and enforces a review of the properties and combinations of the elements already passed over. In but few elementary text-books on chemistry is this sequence so carefully worked out and so fully adhered to as in the present volume.

Hydrogen is the first element considered, then the halogens, then the combinations of the halogens with hydrogen, then oxygen and its combinations with hydrogen and the halogens. The remaining non-metals are each presented in the same manner: first the element, then its combinations successively with hydrogen, with the halogens, and with the remaining elements previously considered.

The study of the non-metals thus serves as an introduction to Part Three, which is devoted to an exposition of the properties and compounds of the metals, most stress of course being placed upon metals and compounds which have important medical and pharmaceutical uses.

Part Four is devoted to the organic compounds of carbon, the classification adopted being one that serves for the convenient presentation of such classes of compounds as

are of special pharmaceutical and medical importance. The industrial manufacture of many of the compounds is described and illustrated, and separate chapters are devoted to such specially important pharmaceutical groups as the alkaloids, the terpenes and their derivatives, glucosides and bitter principles, etc. Part Four concludes with a chapter on the general subject of electrolysis and its applications. The general usefulness of the volume is added to by an appendix comprising tables of equivalents of weights and measures, of weight and volume relations, thermometric equivalents, atomic weights, etc.

The descriptive portions of our volume leave little to be desired, the reactions selected for particular discussion are wisely chosen, and the text is enlivened with appropriate illustrations, many of them showing industrial applications.

The work of revision in the 5th edition has been well done; many of the articles have been largely rewritten, and considerable new matter has been introduced.

Though intended primarily as a student's text-book, the volume possesses many features which will make it a valuable addition to the library of the practicing pharmacist or physician.

J. H. B.

*The Condensed Chemical Dictionary.* A reference volume for all requiring quick access to a large amount of essential data regarding

chemicals and other substances used in manufacturing and laboratory work. Compiled and edited by the Editorial Staff of the Chemical Engineering Catalog. F. M. Turner, Jr., Technical Editor; Assistant Editors, D. D. Berolzheimer, W. P. Cutter and John Helfrich. 8 vo., 525 pages, New York. Chemical Catalog Company, Inc. Price, buckram, \$5.00; flexible, thumb index, \$6.00.

The work is intended mainly to supply the need for detailed information regarding chemicals and chemical products of the large number of persons other than chemists whom the increased importance of the chemical industries has brought in contact with these industries. The book is cosmopolitan in scope, being a dictionary not merely of chemical compounds but also of plant drugs and their products and preparations, minerals, etc. While the space accorded each substance is of necessity small, the information is well chosen and relatively complete, including such unusual information as "grades," "containers," "fire hazard," and "railroad shipping regulations."

A glance at the list of references consulted in the preparation of the book insures that the information is the best and most up-to-date available. As a quick and handy source of information the book becomes indispensable after a few days' use, not only to the non-technical user but also to the busy chemist because of its time-saving qualities.

J. A. K.

#### THE GOVERNMENT.

A recent editorial in the *Philadelphia Public Ledger* said:

"The government is the will of the people. That will is expressed and enforced through regularly chosen officers whose duty is to make it effective.

The government is not an abstract thing apart from the people.

It is not a group of men who impose on the people their own will.

It is the agent of the people with the power of attorney to act for the people in every emergency.

In essence it is the people themselves in action."

We add, that the day will come when national and state governments will keep the people better advised relative to business and proposed legislation and seek their advice in matters that deeply concern them. Much confusion and injustice will thereby be avoided, and "playing politics" with highly important questions will cease to be amusing.