

NEW BOOKS.

TRAITE DE CHIMIE ORGANIQUE D'APRÈS LES THEORIES MODERNES. BY A. BEHAL. With a preface by M. CH. FRIEDEL. VOL. I, ALIPHATIC COMPOUNDS. xv + 963 pp. Paris: Octave Doin. Price, 15 francs.

The first portion of this book (190 pages), deals with the general theories and methods of organic chemistry; the remainder (770 pages) is devoted to a systematic description of the compounds. The preface chiefly consists of a criticism of recent articles by Ostwald on the atomic theory and energy. The system of nomenclature used is that adopted by the Geneva congress which, in a text-book, is a new and very admirable departure. The general properties and methods of preparation of each class of compounds are clearly and fully given, while each separate compound is treated briefly, only its more important points being mentioned. There is much to be said in favor of this plan, since a dictionary, such as "Beilstein," can be consulted for more details and for references to the original papers, while subjects like alcohol or acetic acid, can only be satisfactorily dealt with in a technological work. In the first part the section on stereochemistry is particularly well written, the space formulæ being deduced separately from a consideration of isomerism and rotatory power. It is a pity that space has been occupied by sections on atoms and molecules, the treatment of which is of such an elementary character that it should be absolutely useless to any student of organic chemistry, and if it is not, then practically all the remainder of the book will be. Parts of the sections on manipulation are scarcely on a par with the excellence of the work; as a whole no mention is made of the open tube for combustions, the bayonet tube and Liebig's potash bulbs only are figured; the V. Meyer vapor-density apparatus shown is of the old form, as is also the nitrogen apparatus in the Dumas method. Raoult's apparatus for cryoscopic molecular weight determinations is described in which the cooling is effected by the evaporation of carbon disulphide in a current of air, but no mention is made of Beckmann's arrangement, which is simpler in construction and gives results of sufficient accuracy for ordinary purposes. These omissions are somewhat surprising in view of the fact that an excellent illustrated account is given of the surface-tension method of determining molecular weights, showing that the

author is fully alive to recent work in some directions. The omission of an index from this volume will doubtless be rectified in the remaining one, which is shortly to appear. J. B. T.

NOTES FOR CHEMICAL STUDENTS. BY P. T. AUSTEN, Ph.D., F.C.S. Second Edition. vi + III pp. New York: John Wiley & Sons. Price, \$1.50.

"This is not intended to be a text-book of chemistry but to explain or supplement certain topics which experience has shown often give the student more or less trouble and which are not sufficiently considered in the text-books. No attempt has been made to include all the difficulties that may be encountered." In judging of the book it must be considered in how far it fulfils the above objects as set forth in the preface. The elementary theory of chemistry is treated at some length; the chapter on weight relations leading up to the law of combination in definite and multiple proportions is clearly written; the law is illustrated by a number of good examples, and its enunciation is clearly and felicitously expressed. The tables in the section on stoichiometrical calculations will also be found useful. Unfortunately, accuracy and clearness of expression have been too frequently sacrificed to brevity. In a text-book intended for general use this would call for emphatic comment, but it may be assumed that the author's students will see the experiments referred to, and will receive the required cautions and extended exposition of the subject; to them, therefore, the book will probably prove serviceable. On page 37, in the foot-note, oxygen appears to be printed for nitrogen. The terms specific gravity, volume-weight, and density, are used as synonyms; is it not better to limit the last to the weight of a gas in hydrogen units, and employ the first to indicate its weight in units of air? J. B. T.

ERRATA.

Page 293, (April number) twenty-eighth line, read "large" instead of "larger."

Page 295, thirty-fourth line, after "Series B" read "Time Constant: Masses Varied" instead of "Time Varied: Masses Constant."

Page 301, thirty-first line, read "inclusive" instead of "exclusive."