

directions are given for the ordinary routine manipulations, but stress is laid on the special points which come up in water analysis. Here the book is full enough for all needs, but its most valuable feature is the discussion of the conclusions which may be drawn from the results of bacterial tests. This is, of course, the most difficult part of the whole problem and it must be said that the authors deserve credit for the conservative manner in which they discuss questions still in dispute.

J. H. LONG.

THE AMERICAN YEAR-BOOK OF MEDICINE AND SURGERY FOR 1904. Volume I. Including general medicine. Octavo, 673 pages. Philadelphia, New York, and London: W. B. Saunders & Co. 1904. Cloth, \$3.00 per volume.

In former years attention has been called to this valuable compilation, which is under the general editorial charge of Dr. George M. Gould. The reviews of work in physiological chemistry, prepared by Dr. Walter Jones and Dr. Reid Hunt, of Baltimore, and those in legal medicine by Dr. John Marshall and Dr. J. H. W. Rhein, of Philadelphia, will be found of most interest to chemists. But several of the other departments treated will also be found of interest in view of the increasing influence of chemistry on the discussions of internal medicine. The Ehrlich "side-chain theory" is a good illustration. Much of the matter in the section on physiology is largely chemical.

J. H. LONG.

THE VEGETABLE ALKALOIDS, WITH PARTICULAR REFERENCE TO THEIR CHEMICAL CONSTITUTION. BY DR. AMÉ PICTET, Professor in the University of Geneva. From the second French edition. Rendered into English, revised and enlarged, with the author's sanction, by H. C. BIDDLE, PH.D., Instructor in the University of California. New York: John Wiley & Sons. 1904. vi + 505 pp. Price, \$5.00.

This little book, written by Pictet, has been much in use on the Continent, and has become known everywhere to those giving attention to the chemistry of the alkaloids. It has stood almost alone as a brief summary of the constitution of vegetable alkaloids, separate from other matter. The second edition by the author, "La Constitution chimique des Alcaloides végétaux," in 421 pages, appeared in 1897, and is the edition that Dr. Biddle has "rendered into English, revised and enlarged," as stated on the title-page, "with the author's sanction."

A German translation, by Wolffenstein, was published in Berlin in 1891, with a second edition of 444 pages in 1900. An English translation is, indeed, desirable and will be of much service.

Text-books of organic chemistry, both those in English and those in German, with the exception of one or two of the larger treatises, dispose of the alkaloids in few words, as though they were not covered by systematic studies of chemical constitution. In fact, however, the literature of their synthetic chemistry is too extensive and too recent to summarize. In Beilstein's volume III, 1897, there are 200 pages upon vegetable alkaloids, literature closely related to that of the nitrogen bases at large, of which there are 1800 pages in volume IV, 1898.

In its scope this work is confined to chemical constitution, and, as introductory to the vegetable alkaloids, "artificial bases closely related to the natural alkaloids" are presented in a "First Part" of 107 pages. The treatment is not so comprehensive and philosophical as Guareschi's "Vegetable Alkaloids and Ptomaines," translated in German by Kunz-Krause, and published in Berlin in 1896. Nor is the discussion of leading researches so much extended as in the briefer monograph of Julius Schmidt upon "The Synthesis of Alkaloids" (232 pages). 1900: Stuttgart. Pictet's work is, however, adapted to more general usefulness, probably, than either of the works above named. With them it makes a good companion to the new compilation upon "Der Stickstoff und seine wichtige Verbindungen," by Leopold Spiegel.

Dr. Biddle has added a considerable number of references to literature later than the date of the second French edition of Pictet, in some cases later than the issue of the second German edition. Both he and the publishers deserve the thanks of the chemical public for making this work accessible in English.

A. B. P.

A METHOD OF IDENTIFICATION OF PURE ORGANIC COMPOUNDS. BY SAMUEL PARSONS MULLIKEN, PH.D. New York: John Wiley & Sons. Vol. I. Lg. 8vo. 264 pp. Price, \$5.00.

The volume before us is the first of a series of three volumes which will treat, respectively: (1) Hydrocarbons and oxygen derivatives; (2) nitrogen compounds of carbon; (3) compounds containing other elements besides those named. It is a qualitative analysis of pure organic compounds and gives systematic study to