

The translator has admirably performed his task and has placed in the hands of American students a book almost unique in its field in the English language. The text is exceptionally free from the peculiarities of Teutonic sentence construction usually met with in translations of German works. The additions made by Dr. Warren to the new American edition greatly enhance the usefulness of the book as a student text. It is to be regretted that in his additions to the chapter dealing with the identification of human blood he did not include the recent American advances in the study of "blood crystals" (Reichert and Brown) which to the chemist are more important than agglutination tests, and that he did not feel warranted in inserting in Chapter VI. some of the official methods of drug assay according to the U. S. Pharmacopœia. Doubtless many other teachers in common with the reviewer, using this book as a laboratory text with their students, believe that, although the primary object in work of this nature is to afford instruction in manipulation and chemical reactions, if this can be accomplished by the use of official methods it is wiser to employ such processes than those which the student may not use in his future work. It would not have added materially to the size of the book to have introduced notes pointing out the divergence of U. S. P. methods (if any) from those given by Autenrieth.

A matter of surprise is that the space devoted to poisoning by phosphorus has been increased, although statistical information leads to the conclusion that cases of phosphorus poisoning have greatly decreased since the manufacture of the yellow phosphorus match has been forbidden by statutory enactments. Obviously no small laboratory manual can be complete, yet it is a matter of disappointment that such very important drugs as the morphine derivatives such as heroin, peronin, etc., have received no mention, nor have the cocaine substitutes, eucaine, novocaine, etc. In view of the stringent American antinarcotic laws and the nation-wide campaign to stamp out habit-forming drugs, it is difficult to understand why such manifestly important matter should have been omitted by the translator.

In spite of the small size of the book, Dr. Autenrieth has succeeded in incorporating between the covers a surprising amount of information and suggestions. This has been accomplished by the free use of fine type and by making all descriptions of tests and methods as brief as possible. This attempt to carry conciseness of statement to the limit is one of the only serious faults so far as the actual material presented is concerned, for the reviewer has found that his students experience great difficulty in properly performing many of the tests described.

Taken all in all the tests selected have been well chosen and with one or two exceptions the directions given are correct and down to date. The book can be heartily recommended to all who are interested in the usual problems of forensic chemistry and should prove a welcome addition to the book shelf of every analytical chemist and pharmacist. Not the least interesting sections will be found to be those giving a brief summary of our present knowledge of the action of poisons and the changes they undergo during their elimination.

E. M. CHAMOT

The Chemistry of Colloids. By W. W. TAYLOR. London, Edward Arnold. 328 pp. 7/6 net.

This is the first attempt at an original textbook in English dealing with the important subject of colloidal chemistry. The author is a lecturer in chemistry at the University of Edinburgh, and the book owes its birth, as is the case of many scientific books, to a series of lectures given by the author before a class of advanced students. Viewed in this light, the book will undoubtedly prove useful, not only to the student, for whom it will save laborious note-taking; but also to the instructor, who will benefit by the mass of arranged facts which the book offers.

The principal portions of colloidal chemistry are treated in a manner which is not only brief but sometimes approaches laconicism. The general properties of colloids are followed with a discussion of the van Weimarn theories of amorphous substances which naturally lead to a description of the usual methods for preparing colloidal solutions. The theoretical side of

colloidal chemistry, *i. e.*, the questions of surface tension, adsorption, etc., which are of such fundamental importance to the whole subject, are first discussed toward the end of the book. In the opinion of the reviewer this is an unfortunate arrangement, for to take one example, a treatment of the coagulation of colloidal solutions without a knowledge of the adsorption laws, must necessarily be handicapped to say the least.

For the professional worker in the field of colloidal chemistry, the book has little to offer, first because of its brevity and second because of the fact that although dated January, 1915, many of the results of recent research are not to be found in the book.

However if one is interested in obtaining a statement of the principal facts of colloidal chemistry unencumbered with too much theory, the book is to be recommended.

WALTER A. PATRICK

Handbook of Colloidal Chemistry. By WO. OSTWALD. Translated by M. H. FISCHER. 278 pp. Blakiston's Son & Co. \$3.00 net.

The above book is a translation of the third German edition of Wo. Ostwald's "Grundriss der Kolloidchemie." Wo. Ostwald's name has been so intimately associated with the development of colloidal chemistry, that it needs no introduction even to American readers. His broad general knowledge of his subject reminds one very forcibly of the attitude of his father, Wilhelm Ostwald, toward physical chemistry. Following the footsteps of his father, the son also endeavored to write an authoritative text-book in his own chosen field. The above book is the result, and while the reviewer can not agree with the translator in saying that Wo. Ostwald in colloidal chemistry occupies a position analogous to Wilhelm Ostwald in physical chemistry, or J. Liebig in agricultural chemistry, nevertheless one must agree that his text-book is most stimulating and interesting.

The book is divided into two parts, a general and special study of colloidal chemistry. The first part is devoted largely to classification and systematics, being the particular field in which Ostwald excels. The treatment is very general,

indeed in many cases it seems as if the spirit of generalization was carried too far. This is well illustrated in Ostwald's "negative" surface tension, the existence of which is not supported by experimental evidence and which would indeed be contradictory to our fundamental ideas of surface tension.

The second part of the book dealing with the properties of colloidal solutions is the most interesting. This is especially true of that portion which treats of the viscosity of colloidal solutions.

The book is made very attractive with its abundant photographs and tables. On the whole the translation is acceptable, but the frequent use of the ugly word "dispersion-means" in the place of dispersion medium strikes one as inexcusable.

WALTER A. PATRICK

The House Fly, Musca domestica Linn., its Structure, Habits, Development, Relation to Disease and Control. By C. GORDON HEWITT. Cambridge: University Press.

The house fly has been an illustration of the fact that it is concerning the most common animals that we often know the least. Though associated with man through all ages, and doing him incalculable injury, this insect, until recently, was either viewed with complete indifference or rather with favor as a paragon of industry. To any one who desires to see how all of this has been changed and how fully the menace which the house fly forms to public health has been established, the book by Dr. Hewitt is highly recommended. It is not a popular treatise in the usual sense but, as the author states in the preface, it complements the work by Dr. L. O. Howard, "The House Fly: Disease Carrier." Although primarily intended for entomologists, sanitarians and physicians, it contains much matter of general interest.

The various parts of the book deal with the structure and habits of the house fly, its breeding habits, natural enemies, various related species frequenting houses, relation to disease and control. The strongest parts of the book appear to be those dealing with the anatomy and with the dissemination of dis-