

While treating essentially of U. S. P. and N. F. medicinals and related substances, the author has accorded qualitative and quantitative procedures very scant treatment; these are defined, rather than described. The first chapter, "Analysis, Molecular Weights, Formulas" in particular, should for a book of this scope include illustrations of laboratory apparatus mentioned in the text; *e. g.*, under the methods of molecular weight determinations, estimation of C, H, etc. The introduction of more chemical equations would in numerous instances serve to amplify certain phases involved in manufacturing processes, *e. g.*, in section 234, Citric acid—the mode of obtaining this commodity is described in brief, but no equations are given.

The book includes discussions of many new chemicals recently introduced into the U. S. P. and *Materia Medica* generally, *e. g.*, Butyn, Mercurochrome, Chaulmoogra esters, etc., as well as an excellent treatment of the Vitamins. This little volume is, so far as noted, free from typographical errors, and despite the limitations intentionally imposed by the author, one of the very best texts of its nature now available.

SIMON MENDELSON.

A Laboratory Manual of Qualitative Chemical Analysis for students of Pharmacy. By Theodore J. Bradley, A.M., B.S., Ph.G., Professor of Chemistry, Massachusetts College of Pharmacy. Fourth Edition. 12 mo. 184 pp., cloth. Lea & Febiger, Publishers. Price \$2.25.

The Preface states that "this manual was prepared with the objects of acquainting the student with the general methods of qualitative analysis and preparing him to carry out such qualitative tests as the pharmacist may be called upon to make. The course is arranged to include one hour of lecture, one hour of recitation and about three hours of laboratory work a week for one school year. Practice on the analysis of unknown solutions is provided for throughout the course. This is important, as it increases the interest of the student and develops his self-reliance by putting him upon his own responsibility in doing the work and in interpreting the results.

The elementary theory of chemistry is given in the first twenty-five pages. The metals are considered in seven groups, concluding with an analysis of a solution for all groups of the metals. The acids are considered in three groups—A, those whose

radicals are precipitated by silver nitrate in the presence of nitric acid; B, acids whose radicals are precipitated by barium chloride from a neutral solution, and Group C include those whose radicals are not included in the foregoing. Analysis is made for each member of the groups.

Other subjects are given consideration under the following: Analysis of a solution for the important metals and acids. Treatment of solid substances. Qualitative examination of official inorganic chemicals. General qualitative tests of the U. S. Pharmacopœia. Destruction of organic matter; Reagents and test solutions.

Review has been made of previous editions and favorable comment of the book as a laboratory guide.

The Art of Compounding. A Textbook for students and a Reference Book for Pharmacists at the Prescription Counter. By Wilbur L. Scoville. Fifth Edition, 8 vo., 485 pp. P. Blakiston's Son & Co. Price \$4.00.

The author is a member of the Revision Committee of the U. S. Pharmacopœia and of the Committee for Revision of the National Formulary. The first edition of "The Art of Compounding" was prepared by the author when he taught the art of compounding and prescription practice at Massachusetts College of Pharmacy, about twenty-five years ago or more. Ever since then the book has found a welcome by pharmacists and teachers of pharmacy. The purpose of the author was set forth in the first volume and the revisions have been progressive with the same thought and purpose in the mind of the author.

The author gives a quotation from Carlyle as text which he uses in the presentation of Chapter I. It is worth quoting: "The good of a book is not in the facts that can be got out of it, but in the resonance it awakens in our own minds. A book may strike out of us a thousand things it does not itself know." A paragraph of the chapter is quoted in the following: "By study the knowledge and experience of others are made available to us, and we learn to deduce new methods or to newly apply principles. Study has for its object the assimilation of the thoughts of others. To this end the thought involved in the text must first be understood."

The present edition has undergone careful revision. The first edition contained fourteen chapters and the present has eighteen; the added chapter of the volume under review