

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

is that on "Adjusted Solutions" in which is considered the needs and methods for adjusting ampul solutions for reaction and isotonicity, of collyria for isotonic conditions, and of colloidal solutions for stability.

More than 650 prescriptions are now included as directly illustrative of the principles discussed in the text, and more than 350 additional typify State Board examinations. Many of the additional prescriptions are types of recent prescription practice. It is not necessary to go into the details of the chapters as both the author and his work are well and favorably known to pharmacists everywhere and it is sufficient to call their attention to the recently revised edition. The book speaks well for the publishers.

Introduction to the 6th Edition of the German Pharmacopœia. Prepared by members of the Committee on Public Health. Verlag Chemie, G.m.b.H., Berlin, W. 10. 208 pp. Price M4.

The revision of the German Pharmacopœia has provided the opportunity for further research work and for acquainting the users with the German Standard. The greater part with this information is included in the excellent volume under review and reprinted from the *Archiv der Pharmazie* and *Berichte der Deutschen Pharmazeutischen Gesellschaft*, published by the German Pharmaceutical Society.

While the work is somewhat comparable to the "Digest of Comments on U. S. Pharmacopœia and National Formulary," it presents the researches, investigations and reports of the compilers; thus Th. Paul, R. Dietzel and C. Wagner discuss the general principles underlying the new tests for Chemicals, with volumetric analysis, lead and arsenic limits, gravimetric assays, determination of boiling points, testing of thermometers, of glassware, ampuls, etc. J. Gadamer and E. Neuhoff report on alkaloidal content of official drugs and galenicals. H. Beckurts reports on tests for fats, oils, waxes, resins, etc. H. Thoms and F. Unger deal with essential oils, camphor, eucalyptol, thymol, etc., and standards for strophanthus, cantharides, etc. F. Stadlmayr reports on other tests; W. Brandt on the drugs of the Pharmacopœia; C. Schnabel on the galenical preparations; E. Rost on pharmacological assays; L. Haendel on seras and tuberculin and salvarsan preparations.

Improvements in chemical assays have been made and the fact that the reports have been compiled in book form will be welcomed because of their value for laboratory workers

and other pharmacists. The price of the book is remarkably low, even though paper bound.

Formulae Magistrales Germanicae, compiled by Prof. Dr. L. Lewin, 2nd edition; price M3.50. The book of formulas, with index, of 128 pages is published by the German Apothecaries' Society, Berlin, N. W. 87, Levetzoostr. 16 B. With the book there is enclosed a dose table of the more commonly used galenicals and medicinal chemicals.

The first ten pages are devoted to the use and dosage of remedial agents. The formulas are grouped; the first of these include nervines, narcotics and anodynes for internal and external use; the second class comprises chiefly excitants and stimulants; the third is chiefly composed of alteratives; those of the fourth group are indicated in fevers, for malarial conditions, etc. The fifth class is largely made up of antiseptics and disinfectants; the sixth of emmenagogues, hemostyptics, etc. The seventh group includes cardiacs, diuretics, saline solutions for intravenous, rectal and subcutaneous injections. Four formulas comprise the diaphoretics; another group includes expectorants, cough remedies and anti-asthmatics; the emetics are six in number; the next class is made up of remedies for tapeworms, intestinal worms, anti-parasites, etc. The twelfth group comprises cathartics and laxatives; the following class is made up of stomachics and remedies for hepatic complaints; the next class comprises preparations containing astringents; the group following is largely made up of ointments and lotions employed in the treatment of skin diseases; the last six formulas are for demulcents.

Care has been exercised in the selection of the formulas and, doubtless, quite a number of them will prove of value at the dispensing counter of American pharmacies.

The Achema Year Book was published as a guide to the Exposition in Essen, Germany, June 7-19, of this year. The exhibits were chiefly of apparatus used in chemical manufacturing. The volume is divided into four parts—A, is general; B treats of scientific installation of apparatus; C, of the industrial and technical features, and D is more or less of a directory. The book contains much advertising related to apparatus; there is contained, however, valuable information, especially for manufacturers in the chemical industries. The price of the book is M10.