

the eclectic physician toward therapeutics. All this is set forth in the introduction, and a study of this part of the work will help the reader to understand the attitude of the eclectic physician to what he terms "specific" medication. Its study will well repay the pharmacist, for the eclectic school has been grossly misrepresented at times and is but little understood except by those who follow its teachings.

The major portion of the book, something like six hundred pages, is devoted to a study of individual drugs, the botanical sources, habitat, constituents, indications and uses being treated quite fully. One of the most interesting features of the work is the historical data regarding the indigenous materia medica which is presented in the course of these monographs on the individual drugs.

While the subject matter is presented from the eclectic point of view, the facts are set forth clearly and the author presents a very interesting accumulation of data regarding the uses of these drugs. Dr. Felter brings to this task a long experience as a teacher, as an editor and as a practicing physician, and the volume is one which reflects credit upon himself, upon the school which he represents and upon the publisher who has put it out in a very attractive form.

C. A. M.

Pharmaceutical and Food Analysis. By Azor Thurston. 409 pp., and index. Price, \$4.50. D. Van Nostrand and Company, New York City.

This work, as the title indicates, was originally intended to cover all phases of Food and Drug Analysis but, after assembling part of the data, the author restricted it entirely to the analysis of oils, fats, waxes and allied substances. Much of the data presented was assembled during his seventeen years of service as chemist for the Ohio Dairy and Food Department.

Due to the death of the author, final preparation of the work was carried on by B. L. Murray, chemist for Merck and Company.

In the two introductory chapters various types of polariscopes and refractometers are discussed—their use and application in analytical procedure; another chapter considers specific gravity and the methods of determining the gravity of various types of substances.

The chapters following are devoted to General Methods of Analysis: Oils, Fats and Waxes; Dairy Products; Flesh Foods; Eggs and Egg Substitutes and Volatile Oils. Each

substance is found under its own heading in English; French, German and Italian names are appended. The source of the article, method of manufacture and purification and its physical characteristics are given, and also its chemical constants. Special methods of analyses are included wherever these are deemed necessary, and also tests for well-known adulterants.

The author has covered all of the oils, fats and waxes official in the Pharmacopœia, and many others of commercial value. While each substance is quite extensively considered, there is an occasional exclusion or omission of important data, and a few typographical errors have been overlooked.

Note should be made of the misplacement of several paragraphs under Milk Serum, page 184. Paragraphs four and six on page 185 should immediately follow the paragraph carried over from the preceding page; the table which appears at the top of page 186 should then be included.

On page 228 under Lactose the word sucrose is inadvertently inserted instead of lactose; the method for determining the solids in sweetened condensed milk on page 229 should be changed to read—proceed as under Milk—*dry-ing on either sand or asbestos fiber.*

Under the method for determining by the Reichert Meissl on page 242, no mention is made of the Lefmann-Beam Method of saponification, although it is referred to on page 254 under the Polenske number.

When discussing the refractive index of oleomargarine and butter, on page 244, mention should be made of the refractive index of the so-called "nut-butters" which read below that of butter, namely, from 1.4500 to 1.4525.

The statement of the average weight of an egg, on page 289, is undoubtedly a typographical error; it should read 57 grams, or 680 grams to the dozen.

On pages 350 and 362 an incorrect factor is given for determining the amount of menthol in oil of peppermint, and borneol in oil of rosemary. The factor given was evidently obtained from an early edition of the U. S. P. IX which was later corrected to read as follows:

$$\frac{A \times 7.808}{B - (A \times 0.021)} \times [1 - (E \times 0.0021)].$$

E is the per cent. of esters as menthyl acetate or bornyl acetate.

While the work covers practically all the important fats, oils and waxes it of course is

not intended to replace such standards as Lewkowitch on "Oils and Allied Substances," Parry, or Gildemeister and Hoffmann on "Volatile Oils."

Probably the most valuable part of the work is the comprehensive bibliography following each product considered, whereby quick reference is possible to all work of importance published in the recognized periodicals.

J. W. E. HARRISSON.

The following publications are from the well-known publisher, Theodor Steinkopff, Dresden-Blasewitz, who also publishes the *Pharmazeutische Zentralhalle*. All in octavo volumes.

Das Ferment problem von Dr. Andor Fodor. 280 pp., with 24 figures in the text and numerous tables. The author of this book is professor of physiological chemistry at the University of Halle, and is a recognized authority on the subject of ferments. The 5 chapters are arranged as follows: Historical Introduction, Biochemical Phenomenon, Physical-Chemical Phenomenon, Colloidal-Chemical Phenomenon and Ferment-Colloid systems.

The subject of ferments is of great importance in pharmacy as the pharmacist in his daily work is in constant touch with amylase, amylopsin, diastase, emulsin, oxydases, pancreatin, pepsin, rennin, steapsin, trypsin, yeast, etc. It is for this reason that a scientific treatise on ferments, as the one before us, written by an expert, should be read and studied by all those interested in the subject.

Leitfaden der Kolloidchemie, von Dr. Hans Handovsky. 206 pp., with 33 illustrations, 27 tables and 1 plate.

When Thomas Graham, F.R.S., and Master of the Mints, read his paper, "Liquid Diffusion Applied to Analysis," before the Royal Society of London, June 13, 1861, he laid the foundation to Colloid Chemistry, which was destined to become the "missing link" between physics and chemistry. No less an authority than Professor Wolfgang Ostwald, well known as an "exchange professor" on this side of the Atlantic, wrote an introduction to the book before us, which is from the pen of an assistant

at the Pharmacologic Institute of the University of Göttingen.

We want to call special attention to the chapter of the text: "The use of colloidal experience for the explanation of biologic problems," a subject of great importance to pharmacists, physicians and chemists. The author has achieved a real success as he has collected within a small volume a great quantity of material hitherto inaccessible except in the periodical literature, monographs or dissertations.

Theorie und Praxis des Küchenbetriebes, von Dr. J. Roland. 292 pp.

Kitchen-Chemistry and Technology of the Kitchen is an appropriate title of the book. It deals with meat and meat products, eggs and dairy products, fats and oils, flour and cereals, sugar, fruit, coffee, tea, cacao and chocolate and last, but not least, spices. The chemistry and technology of all of these are given and the "reasons why" they are used and how they should be used are thoroughly explained. Surely such a book is needed badly. Even the kitchen household is to-day put on a scientific basis. An appendix to the book is the *Pilzmerckblatt*, published by the Imperial Health Board in Berlin, which gives full description of the edible and also the poisonous fungi together with colored illustrations.

The knowledge to be gained by reading Roland's book can be utilized to good advantage.

OTTO RAUBENHEIMER, PH.M.

PUBLICATIONS RECEIVED.

Bulletin of the Massachusetts College of Pharmacy.—Library Number, 1922.

This bulletin gives a history of the library of the Massachusetts College of Pharmacy; much of the historical report is devoted to the contributions made by the late S. A. D. Sheppard. Recent additions to the library, which now contains about 6000 bound volumes, are listed on pages 13-24. A full-page life-like picture of Samuel A. D. Sheppard is included, also a page of the first catalogue, 1829, and a view of the library.