years of scientific and practical study on poultry diseases by the author. The book is divided into Poultry Diseases, Drugs and their Uses, Weights and Measures, and a Glossary.

Pharmacists in the United States especially in the suburbs and country are frequently called upon for information on this subject and for that purpose the book is a reliable mentor.

Ferdinand Enke, Stuttgart, the well-known German publisher of pharmaceutical, chemical, physical, technical and other scientific works, favored us with the following books for review:

Bernhard Fischer's *Lehrbuch der Chemie fuer Pharmazeuten.* Von Dr. Georg Frerichs, Professor der pharmazeutischen Chemie an der Universität Bonn. S. neubearbeitete Auflage mit 81 Textabbildungen. Lex. Octavo. 886 pp. M. 28.50.

Bernhard Fischer, a student of Kekule, Wallach and Clausius at the University of Bonn and then pharmacist, chemist, teacher, editor and author with a world-wide reputation, published the first edition of this book in 1889. Beginning with the sixth edition in 1909 another authority, Dr. Georg Frerichs, professor of Pharmaceutical Chemistry at the University of Bonn, continued the work which is now in its eighth edition.

This is a real book on pharmaceutical chemistry for both students and pharmacists. It contains that part of chemistry which a pharmacist should, and in Germany, must know to become an apotheker and practice pharmacy. The first part of the work, 50 pages, is devoted to general chemistry. The second section of 320 pages deals with inorganic chemistry, divided as usual into non-metals and metals. The monographs are short and concise, giving occurrence, preparation, properties, tests and uses. The Latin names are quoted and special stress is laid upon German Pharmacopœia chemicals. The third part of 370 pages comprises organic chemistry divided into alipathic, carbocyclic and heterocyclic compounds. How thorough the book is, can be seen from the fact that 30 pages alone are devoted to alkaloids, the knowledge of which is so important to the pharmacist. Volatile oils, resins, balsams, glucosides, coloring substances, albumins, enzymes, etc., also receive proper attention. Part IV consists of an excellent section on volumetric analysis of 86 pages, an important subject to the pharmaceutical chemist. Part V is devoted to stoichiometry and contains 30 typical examples in questions and answers. Part VI consists of physical analytical methods such as melting, freezing and boiling points, specific gravity and polarimetry. A quite unusually detailed and complete index of 21 pages in 3 columns concludes this excellent "Pharmaceutical Chemistry" which we can highly recommend to pharmacists, teachers and students.

Der Nachweis Organischer Verbindungen. Ausgewaehlte Reaktionen und Verfahren. Von Dr. L. Rosenthaler. Professor an der Universität Bern. 2 vermehrte und verbesserte Auflage. Lex. Octavo. 1028 pp. M. 39.60.

The prolific author and contributor to pharmaceutical literature, whose "Pharmaceutical Analysis" we had the pleasure to review in the JOURNAL, May 1923, 474, has created a masterwork in the volume before us which is now in its second edition, the first one being published in 1914.

The introduction gives a description of microchemical methods and the detection of elementary substances. The 33 chapters of the work deal with: Hydrocarbons, Alcohols, Aldehydes, Ketones, Carbohydrates, Phenols, Acids, Oxyacids, etc., Ethers, Quinones, Esters, Halogen Derivatives, Nitro Derivations, Nitrils and Isonitrils, Amides, Amines, Acid Derivatives, Heterocyclic Bases, Amino Acids, Organic Sulphur Compounds, Arsenic, Antimony, Mercury and Gold Compounds, Alkaloids, Resins, Tannins, Glucosides, Bitter Principles, Coloring Matter, Albumins, Enzymes and Toxalbumins. How fully the different chapters are prepared can be seen from the number of pages devoted to each, for instance: Alcohols 63, Phenols 33, Esters 39, Carbohydrates 60, Alkaloids 117, Glucosides 33, etc. How thoroughly the subject is treated can be appreciated if we take the chapter on Alcohols as an example: Color, Reactions, Separation from the Compounds, Detection of Primary and other Alcohols, Separation, Detection of Methyl Alcohol which alone occupies 8 pages, etc.

Truly a masterwork, containing a mint of information! The book also contains many valuable Tables of Constants, Melting Points of Solids and Boiling Points of Liquids, arranged systematically according to temperature. It is a valuable work of reference for both pharmaceutical and analytical chemists.

OTTO RAUBENHEIMER, PH.M.