

importance and the book before us throws much light on this subject.

*Kolloide in der Technik*, Von Raphael Ed. Liesegang. Octavo, 157 pp.

The 14 chapters of the book deal with: Glue and Gelatin, Adhesives, Protectives, Plastic Masses, Tanning, Soaps, Oils and Resins, Rubber, Paper, Textiles, Metals, Ceramics, Foods and Photography. Truly quite a variety of subjects. Nevertheless even the pharmacist can learn much by looking through this book. An author's index of seven pages in double columns and a subject index of three pages in double columns prove the variety of contents.

*Physikalische Chemie*, Von Dr. Alfred Benrath. Octavo, 107 pp.

This is Volume VIII of the Natural Science Series in which the wide-awake publisher collects all the new data since the beginning of the World War. The book before us is written by the well-known authority, Dr. Alfred Benrath, Professor of Chemistry at the University of Bonn. The 2 parts of the volume are: I. Physical Chemistry as Applied to C. P. Chemicals: Relation between the Properties of Elements and Compounds; Theory of Allotropism. II. Physical Chemistry as applied to Solutions: Remarks to van't Hoff's Theory; Solutions of Electrolytes; Theory of Electrolytic Dissociation; Solvat-Theory.

A very complete author's and subject index of nine pages concludes this excellent book, a very distinct contribution to physical chemistry and its newer developments.

*Carl Thiersch. Sein Leben*, Von Justus Thiersch. Mit 4 Bildnissen. Octavo 190 pp. Johann Ambrosius Barth, Leipzig.

In a paper "Pharmaceutical Events in 1822" read before Section on Historical Pharmacy, A. Ph. A., Cleveland meeting 1922 (JOUR. A PH. A., Feb. 1923, pp. 153-158) the writer briefly mentioned the birth of Carl Thiersch, professor of surgery at the University of Leipzig. It is, therefore, a double pleasure to review a book containing the biography of this authority written by his oldest son. The book is systematically arranged from birth to death—a true biography—and we want to mention a few chapters and extracts. Born April 20, 1822, in Munich, the son of Professor Friedrich Thiersch, he graduated from the gymnasium in 1836, entered the University of Munich and began the study of medicine in

1840. He made further studies at the Universities of Berlin, Vienna and Paris and obtained his "Doctor Med." in 1846 with a thesis, "On the Action of Medicines," at the University of Munich, where he became prosector of anatomy. From 1854-1867 he occupied the chair of surgery at the University of Erlangen and from that date until his death, April 18, 1895, the one at the University of Leipzig. With interest do we note that in 1854 Carl Thiersch married Johanna, the second daughter of Professor Justus von Liebig. In the appended bibliography we find that Thiersch introduced salicylic acid as an antiseptic in surgery in 1873. His name will forever live in pharmacy and medicine as Thiersch's Solution and Thiersch's Powder.

We must not forget to compliment the publishers as to the printing, illustrations and binding of the book which we can highly recommend to all interested in history and biography.

*Justus Liebig und seine Zeit*. Von Prof. Alfred Benrath. 12 mo. 120 pp. Vchlagen und Klasing. Bielefeld und Leipzig.

A popular edition of the biography of the great chemist and his time by an author who is professor of chemistry at the University of Bonn. The 10 chapters of the book deal with: Liebig as Student, Professor in Giessen, Events in 1840, Agricultural Chemistry, Animal Chemistry, Events in 1848, Chemical Letters, Professor in Munich and Last Years of Liebig.

However, the author neglected to state that originally Liebig was apprenticed to Apotheker Pirsch in Heppenheim (Hessen) where he spent ten months. Owing to his love for experiments and almost blowing up the building he was discharged—not careful enough for a pharmacist, he became the greatest chemist of his time.

The little book is well worth reading and the bibliographic references are very useful for further information.

*The foregoing reviews have been prepared and communicated by*

OTTO RAUBENHEIMER, PH.M.

*Manual of Chemistry*. By W. Simon, Ph.D., M.D., and Daniel Base, Ph.D. 12th Edition, 667 pages. Fifty-five illustrations, one spectrum plate, and six colored plates. Lea and Febiger, 1923.

Any book which, as this one does, attempts to cover in a single volume the fields of general chemistry, organic chemistry, and analytical

chemistry, both quantitative and qualitative is open to the criticism that the treatment of each division must be very brief. Every one interested will acknowledge that it is a very difficult matter to decide just what the scope of the work given to a student shall be and the decision rests upon the personal ideas of the teacher or author and the needs of his students. When does a little knowledge become a dangerous thing or is a little knowledge on a large number of subjects a valuable thing? The authors of this book seem to lean to the latter view and if this is correct, the book is an excellent exposition of the idea.

This idea is particularly evident in the treatment of the subject of colloidal solutions, only two and one half pages being devoted to the subject and this entirely to colloidal suspensions. The question of jels, the subjects of osmosis, dialysis, etc., are not mentioned in this connection. The discussion of gravimetric methods is painfully brief as is also that of gas analysis and water analysis. The same remarks might apply to the material presented on the subject of qualitative analysis and the question arises—Would it not be better to eliminate such very brief discussions of such special topics and devote the space to a more thorough discussion of the principles of general chemistry such as ionization, mass action, hydrogen ion concentration, indicators, hydrolysis, etc.? These remarks would apply particularly to the inclusion of such things as the lists of apparatus and reagents which are found on pages 353-357 which more properly belong in laboratory manuals and also to the reproduction of tables of neutralization equivalents on pages 397-407 which might better be sought for in books of reference such as special works on volumetric analysis or the U. S. P.

Aside from the criticisms made above, the treatment of the various topics is logical and errors of fact do not often appear to the casual observer. As a basis of study and under the guidance of competent instructors to direct the student and possibly in medical schools conducted along the lines prevailing some years ago such a book will no doubt be found very useful. It certainly presents in a concise manner much information which is of great value to the student of medicine or pharmacy and which is not found in most of the regular texts supplied to such students. The book as a whole makes a fine-appearing volume.

The binding, the printing, the general arrangement of chapter and paragraph headings is very excellent and no typographical errors of any kind were discovered.

A. H. CLARK.

*Hospital Corps Handbook*, United States Navy, 1923. Published by the Bureau of Medicine and Surgery under the authority of the Secretary of the Navy.

The Handbook is intended for use at the Hospital Training Schools and covers, in abstract in some instances and in detail in others, a wide range of subjects. It serves as a text or guide in the preparation of the members of the hospital corps to perform their numerous duties.

A preliminary discussion of the subjects of anatomy and physiology is followed by a more thorough outline of the subjects of first aid and minor surgery, including bandaging and dental first aid.

The chapter on nursing treats of the general procedures with instruction in operating room and surgical technique, administration of anesthetics, physiotherapy and the preparation of food for the sick.

Preventive medicine, hygiene and sanitation receive considerable attention and instructs the corpsman in the care of the health of the personnel of the navy under all conditions while in the service.

The elementary theories of chemistry and pharmacy are discussed briefly followed by the subject of *materia medica* which includes the definition, manufacture, physical and therapeutical properties with doses and methods of administration of all drugs and preparations of the U. S. P.

Instruction is given in bacteriology and clinical diagnostic procedure; also embalming, X-ray and chemical warfare.

Duties on land and sea are definitely stated. The administration, organization, clerical duties etc., are fully explained.

In a handbook of about 700 pages a wide field of activity is explained and provided for the hospital corps in language that can be understood by the man of average education and mental alertness.

This edition was revised by Lieuts. W. J. C. Agnew and W. W. Behlow, Medical Corps, and Chief Pharmacist N. L. Saunders.

Copies of the handbook may be had from the Government Printing Office at \$1.00 per copy.

C. A. DUNCAN.