

the live publishers instructed the above three authorities, one of which, Prof. Zörnig an honorary member of the A. Ph. A., with the preparation of a new edition. Interrupted by the world war and consequently delayed, this up-to-date edition of Hager's *Handbuch* is now before us in two handsome lexicon volumes.

Hager's original intention was to produce a Handbook or better an Encyclopedia of Pharmacy which contains everything which the apothecary wishes to know pertaining to Vegetable, Animal or Mineral Drugs, Chemicals, Galenicals, Formulas, Specialties, Nostrums, in fact everything and anything scattered throughout the pharmaceutical literature. It is a compilation of all the Pharmacopœias and Formularies of all countries, including, needless to say, our U. S. P. and N. F. The old perplexing problem of an International Pharmacopœia is solved in Hager's *Handbuch* in an excellent manner.

The work begins with four pages of abbreviations used in the text. Then follows a very complete and excellent chapter on Methods of Analysis divided as follows: Physical Methods pp. 1-34; the Microscope and Its Use pp. 34-54; Chemical Methods, subdivided as follows: Tests of Identity and Purity pp. 54-57, Quantitative Analysis: Gravimetric pp. 57-59 and Volumetric pp. 59-80; Table of Constants pp. 80-83 and Atomic Weights p. 84.

The work itself is arranged in alphabetical order and preparations or derivatives are listed under the title of the drug or chemical. As an illustration we find under *Acidum Aceticum* pp. 95-111, besides the General Monograph the following varieties, derivatives, salts and preparations: *Rectificatum*, *Acetum Aromaticum*, *Essig-Essenzen*, *Acetogen*, *Ammonium Aceticum*, *Liquor and Siccum*, *Acidum Aceticum Anhydricum*, *Acetylum Chloridum*, *Acidum Thioaceticum*, *Ammonium Thioaceticum*, *Acidum Monochloraceticum*, *Acidum Dichloraceticum*, *Acidum Trichloraceticum*, *Acetocaustin*, *Acidum Aminoaceticum*, *Betainum* and *Acidol*. Notice is also given that *Acidum Acetylosalicylicum* is described under *Acidum Salicylicum*.

As an illustration of a vegetable drug we will cite *Belladonna* with the following sub-titles and monographs: *Atropa Belladonna*, *Folia Belladonnæ* with *Emplastrum*, *Extractum*, *Extractum Siccum* (Brit.), *Extractum Liquidum* (Brit.), *Powdered Extract of Belladonna Leaves* (Am.), *Oleum Belladonnæ Infusum*,

*Tinctura Belladonnæ*, *Tinct. B. ex Herba Recente*, *Tinct. B. Aetherea*, *Ung. Belladonnæ*, followed by 11 minor preparations from *Belladonna Leaves*. Then follows a monograph on *Belladonna Root* and its preparations and lastly a chapter on *Belladonna Alkaloids* and similar bases as: *Atropinum*, *A. Sulfuricum*, *A. Valerianicum*, *A. Salicylicum*, *A. Methyl-obromatum*, *A. Methylonitricum*, *Hyoseyaminum*, *H. Sulfuricum*, etc.; *Homatropinum Hydrobromicum*, *Hydrochloricum*, *Sulfuricum*, *Salicylicum* and *Mydrin*; *Scopolaminum Hydrobromicum*, *Hydrochloricum*, *Hydroiodicum*, *Hyvalon*, *Atroscinum*, *Euscolol*, *Hyoscinum*, *Duboisinum* and *Sulfuricum*, *Hydrobromidum* and *Hydrochloricum*. These two illustrations will prove the thoroughness of the text.

The main part of Hager ends with p. 997 in Vol. II. Then follows an Appendix up to p. 1392 containing numerous chapters among which we want to point out the following: Homeopathy, Veterinary Remedies, Cosmetics, Perfumery, Colors and Dyes, Inks, Photography, Distillation, Sublimatum, Sterilization, Dialysis and other processes, Analysis of Urine, Blood, Gastric Contents, etc., Innovations in the German Pharm. VI edition. A very complete Index pp. 1393-1579 in three columns gives an idea how thorough this excellent work has been compiled.

*Hager's Pharmazeutische Praxis* is a masterwork which should be in the hands of every pharmacist, who deserves this name. It was only a handful of friends who followed "Old Hager" to his grave and paid the funeral expenses; only an inexpensive monument has been placed in the cemetery in his honor; but more solid, more enduring, in fact everlasting, are his literary achievements and quite especially his "Pharmazeutische Praxis." Hager, "Altmeister der Pharmazie" and his masterwork "Pharmazeutische Praxis" long shall they live!

OTTO RAUBENHEIMER.

*Plant Respiration.* By S. KOSTYCHEV, translated and edited by Charles J. Lyon. Publishers, P. Blakiston's Son & Co., Philadelphia. 163 pages. Price \$2.50.

Plant physiologists and biochemists alike will welcome this English translation of the German monograph already familiar to many. It is the aim of the author to portray the modern outstanding features of the science of plant respiration and to consider carefully the whole biochemical side of the problem from a uniform

standpoint. The author places considerable emphasis on his theory of connection between oxygen and anaerobic respiration, and although a great deal of work still remains to be done in this chemical field, he has placed it in a central position. On either side of this he carefully reviews and classifies all of the scientific knowledge of these two phases of respiration. The chemical explanations are excellent and the references to the literature comprehensive and complete. The monograph is divided into five chapters:

I. Oxygen Respiration.

II. Anaerobic Respiration.

III. The Connection of Oxygen Respiration with Anaerobic Respiration.

IV. The Chemical Processes in Plant Respiration.

V. Respiration at the Expense of Mineral Substances.

The translator has admirably captured the finer distinctions of the German text without the awkwardness more or less common in translations where such close adherence to the text becomes a necessity. The volume is also well edited and the literature published in the interum between the German edition and the translation has been properly recorded and reviewed, even to Stoklasa's work during 1926. He has also included newer analytical methods not in the German text. Among these are Osterhout's method for measurement of the rate of CO<sub>2</sub> production, Waller's modification of the Katharometer, etc.

E. H. W.

*Trade Association Activities.*—The foreword of this recent publication reads: "In 1923 the Department of Commerce issued a volume on Trade Association Activities. The present publication is intended to bring this work up-to-date.

"The purpose of this and of the previous publication is to indicate the successful service of trade associations in public interest. In the field of scientific and economic research, in statistics, in simplification and standardization of commodities, in the promotion of arbitration in commercial disputes, in development of foreign trade and in scores of other directions trade associations have made a most valued contribution to our economic progress.

"While our industry and commerce must be based upon incentive to the individual, yet the national interest requires a certain degree of coöperation between individuals in order that we may reduce and eliminate industrial waste,

lay the foundation for constant decrease in production and distribution costs, and thereby obtain the fundamental increase in wages and standards of living.

"Trade associations, like many other good things, may be abused, but the investigation of the Department of Commerce shows that such abuses have become rare exceptions. Within the last few years trade associations have rapidly developed into legitimate and constructive fields of the utmost public interest and have marked a fundamental step in the gradual evolution of our whole economic life."

*Commerce Year Book, 1926, Volume 1—United States.*—Compiled by the Bureau of Foreign and Domestic Commerce. Julius Klein, Director. This volume which has to do with domestic commerce has recently been issued. It is comprehensive and a source of a great deal of information required by all the industries. It may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D. C. for \$1.00.

#### PUBLICATIONS RECEIVED.

We are indebted to The Wellcome Chemical Research Laboratories, The Wellcome Foundation Ltd., T. A. Henry D.Sc., Director, Snow Hill, London, for reprints of some of their investigations made during the past two years. Titles and names of authors follow:

"The Determination of Ascaridole in Chenopodium Oil," by H. Paget.

"Mercuration of Some Alkylphenols and Alkylphenolaldehydes," by T. A. Henry and T. M. Sharp.

"The Action of Antimony Trichloride upon Diazotized Diamines," by W. H. Gray.

"Separation of *d*-neo Bornylamine from *d*-Bornylamine," by J. A. Goodson.

"The Alkaloids of *Picalima Klaineana*," by T. A. Henry and T. M. Sharp.

*The Plaster Book*—Issued by Johnson & Johnson.—This book is in essence a textbook on plasters, giving information in regard to medicated and unmedicated plasters not ordinarily found in the textbooks. The book gives the composition and medication of plasters, briefly outlines their uses, as well as giving information in regard to their storage, care and dispensing. The second part of the book takes up sales suggestions. The book may be obtained by druggists without cost by addressing the publishers.