

fier for stable O/W emulsified ointments.

6. A representative group of common medicaments has been incorporated with good results. The water content in all cases was in the ratio of fifty per cent.

REFERENCES

- (1) Fantus, B., *J. Am. Med. Assoc.*, 107 (1936), 861-863.
- (2) Mumford, P. B., *Brit. J. Dermat.*, 50 (1938), 540-543.
- (3) Traub, E. F., *Urol. Cutaneous Rev.*, 43 (1939), 409-411.
- (4) Bamber, G., *Brit. J. Dermat.*, 52 (1940), 21-25.
- (5) Kuever, R. A., and Burnside, C. B., *JOUR. A. PH. A.*, 29 (1940), 325-327.
- (6) Gershenfeld, L., and Brillhart, R. E., *Am. J. Pharm.*, 111 (1939), 430-442.
- (7) Clayton, W., "The Theory of Emulsions and Their Technical Treatment" (1935), page 1.
- (8) *Ibid.* (1935), 415.
- (9) *Ibid.* (1935), 169-170.
- (10) Bancroft, W. D., "Applied Colloid Chemistry" (1921), page 262.
- (11) Clayton, W., "The Theory of Emulsions and Their Technical Treatment" (1935), pages 171-172.
- (12) Powers, J. L., Leask, H. B., and Warner, R. S., *JOUR. A. PH. A.*, 29 (1940), 14.
- (13) Fiero, G. W., *Ibid.*, 29 (1940), 187-192.
- (14) Johnston, G. W., and Lee, C. O., *Ibid.*, 29 (1940), 236-239.
- (15) Prout, W. A., Eddleman, Mae S., and Harris, R. G., *Ibid.*, 29 (1940) 372-373.
- (16) Wise, F., and Wolf, J., *J. Am. Med. Assoc.*, 107 (1936), 1132.
- (17) Wood, W. C., *Brit. Pharm. J.*, 142 (1939), 327.
- (18) Tainter, M. L., Kulchar, G., and Stockton, A. B., *JOUR. A. PH. A.*, 29 (1940), 306.
- (19) Cox, C. L., and Goedrich, P., *Ibid.*, Practical Pharmacy Edition, 1 (1940), 210.
- (20) Mumford, P. B., *Brit. J. Dermat.*, 50 (1938), 540-543.
- (21) Soulsby, J., *Ibid.*, 52 (1940), 25-35.
- (22) Gershenfeld, L., and Brillhart, R. E., *Am. J. Pharm.*, 111 (1939), 430-432.
- (23) Clark, W. C., *Ibid.*, 111 (1939), 228-233.
- (24) Burnside, C. B., and Kuever, R. A., *JOUR. A. PH. A.*, 29 (1940), 373.
- (25) Clayton, W., "The Theory of Emulsions and their Technical Treatment" (1935), page 93.

Book Reviews

Biological Stains, by H. J. CONN and others. 4th Edition. 308 pages. 5¹/₄ x 8¹/₈. 1940. Geneva, N. Y.: Biotech Publications. \$3.40.

The Commission on Standardization of Biological Stains was organized in 1920 and its function is to certify the quality of stains which are used in the United States by bacteriologists, pathologists, clinicians, etc. At present, this Commission is working in coöperation with pharmacy and much of its work is to be included in the next edition of the National Formulary.

The book contains valuable information concerning many important stains, as follows: characteristics and uses of important stains, dye synonyms, formulas for the preparation of solutions used for staining, color index number, Schultz number, relation of stains to their color index number, special techniques and their authors' names, methods of testing the more important stains, etc. The book also contains a large bibliography for staining techniques.—A. G. D.

Biology in the Making, by EMILY EVELETH SNYDER. xii + 539 pages. 5¹/₂ x 8. 1940. New York: McGraw-Hill. \$2.80.

This book is written in a style which will attract the scientist as well as the layman; and the more important phases of the biological sciences and the biographies of leading scientists are presented.

In each chapter the latest advances in biology and the scientists responsible for these achievements are given. Various illustrations are included. Some of the subjects discussed are: physiology, nutrition, blood anesthesia, chlorophyll, the cell theory, fossils, the germ theory, evolution and heredity, contagious diseases, serums, antitoxins, etc.—A. G. D.

Chemists Dictionary of Synonyms, 136 pages. 5 x 7¹/₄. 1940. London: THE CHEMISTS AND DRUGGISTS. 5s. plus \$0.75 for handling charges.

This book is prepared and published by *The Chemist and Druggist* and includes many synonyms which are of aid to the average pharmacist in the practice of his profession.

Although this book is based upon Rouse's *Synonyms*, it should prove itself of value to the pharmacists in the United States.—A. G. D.

Manual of Clinical Chemistry, by MIRIAM REINER. xv + 296 pages. 4³/₄ x 7. 1941. New York: Interscience Publishers, Inc. \$3.00.

This small laboratory manual which is a useful and a practical laboratory outline of clinical chemistry should be of interest to any pharmacist who is contemplating carrying out this type of work in his pharmacy.

Under the heading of blood analysis, gases and enzymes, inorganic constituents, carbohydrates,

"To read textbooks is easy, but to do research is to grapple, inch by inch, with the obscure, and battle step by step, with the unknown."—Victor Robinson

nitrogenous constituents, pigments, lipids, etc., are thoroughly covered. A large section is devoted to urinalysis; and all of the common tests which are used in clinical chemistry are given.

Methods are included for the extraction of preparations of antigens from pollen, feathers and hairs of animals, and house dust; the determination of sulfanilamide in the blood and urine; the determination of arsenic; various determinations for biological analysis for sex hormones, some of the vitamins, cerebrospinal fluid, feces, kidney and liver function tests, gastric analysis, the preparation and sterilization of 50% solution of glucose for intravenous use. References are included.—A. G. D.

The Chemical Action of Ultraviolet Rays, by CARLETON ELLIS and ALFRED A. WELLES. Revised and enlarged edition by Francis F. Heyroth. ix + 961 pages. 6 x 9. 1941. New York: Reinhold Publishing Corporation. \$12.00.

The average pharmacist is interested in ultraviolet rays (the radiant spectrum below 4000 Angstrom units) as these rays are of pharmaceutical importance in the irradiation of ergosterol for the production of vitamin D₂, the production and prevention of sunburn and in various types of sterilization.

The first part of the book describes the various methods used for the production of ultraviolet rays—sun, open arcs, etc.—and their uses and sources. The latter portion is devoted to the biological applications of ultraviolet rays, applications of photochemistry to industrial problems, photochemical reactions, etc. Many references are included.—A. G. D.

Clinical Pellagra, by SEALE HARRIS, with SEALE HARRIS, JR. 494 pages. 6³/₄ x 3³/₄. 1941. St. Louis: C. V. Mosby Co. \$7.00.

Although it is generally thought that pellagra is a nicotinic acid-deficiency disease, the author presents a number of theories for the cause of this condition as insufficiency of the stomach and liver. The maize-toxin theory, photosensitization of pellagrins and the effect of alcohol in pellagra are discussed.

The prevention, diagnosis and treatment of pellagra are given in detail in this book.—A. G. D.

Le Clergé et la Pharmacie. Essai sur le rôle du Clergé et plus particulièrement des Congrégations religieuses dans la préparation et la distribution des remèdes avant la Révolution; a review of the book by J. TOURNIER I.

The material covers a field much neglected in the writings of our own country. The review covers the introductory chapters dealing with the role of the pagan priesthood and that of monastic orders; edicts and orders concerning remedies and their

purveyors; the role of female religious workers in hospital pharmacies; role of the nuns in convent pharmacies. Some of the famous capuchins will be discussed separately in a later report.—Z. M. C.

Modern Drug Encyclopedia and Therapeutic Guide, by JACOB GUTMAN. 6¹/₂ x 9¹/₄. xxiv + 1644 pages. 1941. New York: New Modern Drugs. \$7.00.

This new edition represents a quick reference desk service on over eleven thousand ethical specialties distributed by nearly three hundred manufacturers. For each specialty the composition, action and uses, the name of the manufacturer, how marketed, the method of administration, etc., are briefly summarized. For quick reference, three indices (Drug, Manufacturers' and Therapeutic) are given. Free supplementary service issued every three months, complete with cumulative index is included.—A. G. D.

Principles and Practice of Chromatography, by L. ZECHMEISTER and L. CHOLNOKY. Translated into English by A. L. BACHARACH and F. A. ROBINSON. 362 pages, 5 x 8. London: Chapman and Hall, Ltd., 11 Henrietta Street, W. C. 2. 25s.

This book discusses in detail this new method (principles of the technique and applications) of separating organic chemicals based upon their differences of adsorption affinity. Procedures, types of apparatus, solvents, adsorbents, etc., are given and are thoroughly discussed.—A. G. D.

The Chemical Constitution of Natural Fats, by T. P. HILDITCH. xi + 438 pages. 1940. London: Chapman and Hall Ltd. 35s net.

In this book the author has attempted to classify natural oils and fats from the biological as well as constitutional points of view. The natural oils and fats have been grouped under the following headings: (1) Fats and aquatic origin (*a*. Fresh water, and *b*. Marine); (2) Fats of land animals; (3) Milk Fats; and (4) Vegetable fats (*a*. Seed fats, *b*. Fruit pulp fats and *c*. Fruit carnal fats). The characteristic differences in their compositions (fatty acid and glycerides) have been given; and the method of classifying oils and fats into the non-drying, semi-drying and drying groups has been discarded.

This book is based primarily on the process of oxidation of natural fats and oils which has been carried out by Hilditch and his co-workers on the determination of the nature and the respective positions of the component fatty acids. Many representative natural oils and fats are discussed.

Research workers will find this book of much value and it is a very good reference book for workers in the complicated field of oils. (From *Jour. Indian Chem. Soc.*, 17 (1940), 730.)—F. J. S.