

chapter the author gives very accurate definitions of the botanical terms used in the Pharmacopoeia, the National Formulary, and other related works. Drugs derived from the same part of the plant are discussed as a whole and their similarities and contrasting characteristics brought out. After mastering this second chapter the student will understand fully the Pharmacopoeial descriptions of crude drugs.

Part II, on the "Taxonomic Consideration of Drugs," constitutes by far the largest part of the book. It is in this part that the author shows his skill in properly presenting the subject to the student mind. The discussion of each drug is divided into the following paragraphs:

- Synonyms,
- Botanic origin,
- Parts used,
- Habitat,
- Description of the plant,
- Production and Commerce,
- Description of the drug,
- Histology,
- Description of the powdered drug,
- Constituents,
- Substitutes and Adulterants.

The heading of each paragraph is in bold-face type which enables the student to quickly find what he wants.

In cases of drugs derived from different species and cases of drugs commonly adulterated, the author has arranged very good tables showing the contrasting characteristics by which the different species can be identified. These are quite valuable in pharmacognosy.

The book contains many illustrations, including photographs of both drug plants and crude drugs, and some showing the crude drugs in the original shipping packages. There are many good drawings and quite a few photomicrographs of crude drugs.

The book should appeal not only to students, but also to pharmacognosists in all lines of work.

C. J. ZUFALL.

Bernard Courtois and the Discovery of Iodine. The *Chemist and Druggist* of January 7 abstracts interesting data and information from M. L. G. Toraude's new volume on "Bernard Courtois and the Discovery of Iodine." The volume is dedicated to the President of the Academy of Dijon. The article states that "in the early days of this Academy, a local

barrister, Guyton de Morveau, was Professor of Chemistry there. At the same date (1776) a retired valet, Jean Baptiste Courtois, who lived opposite, was engaged by Guyton as laboratory assistant and general factotum. His son Bernard was born in 1777, and a few years later Jean Baptiste became, through Guyton de Morveau's influence, manager of an artificial saltpetre works. Guyton soon after (in 1791) left Dijon for Paris. Bernard grew up at Dijon, and later was apprenticed to M. Frémy, pharmacist at Auxerre. He was drafted into the army as hospital pharmacist in 1799, and subsequently went to the laboratory of Louis Jacques Thénard, with whom he had made friends at the Polytechnic. It was about 1802 when Courtois left Thénard to join Séguin, and began to study opium. He isolated from opium a crystallized body which was probably morphine. On December 24, 1809, Séguin communicated to the Institute Courtois's note on this subject. M. Toraude considers that Courtois committed the same fault with reference to morphine as with regard to iodine. His (secondary) education was but limited; this caused lack of confidence, and timidity made him hesitate. It was while washing seaweed ashes and destroying the sulphuretted compounds by sulphuric acid that Bernard Courtois noted the violet fumes which revealed to him iodine. M. Toraude suggests that he may have used a larger quantity of acid on that particular day. Courtois had not at his saltpetre works the laboratory apparatus necessary to study the subject thoroughly. He asked two Dijon friends—Desormes and Clément—to follow up the matter. Clément put the discovery before the Institute on November 29, 1813, and on December 6 and 20 Gay-Lussac read two notes which M. Toraude reprints *in extenso*. It was Clément who showed samples to Chaptal and Ampère, and to Sir Humphry Davy, when the English scientist came through Paris with a special safe conduct granted by Napoleon. M. Toraude remarks that Davy had suffered from a serious malady of a nervous nature in 1807-8."

PUBLICATIONS RECEIVED.

Das Opium. By Dr. Axel Jermstad, and published by A. Hartleben, Vienna and Leipzig. Volume 368 of the Chémico-Technic Library. The preface is by Prof. Dr. H. Zörnig. This publication was reviewed for the January JOURNAL A. PH. A. by Prof. Otto Raubheimer.

Cultivation of Medicinal Plants. By Dr. H. Zörnig, published by *Natur und Kultur*, Dr. F. J. Böller, Munich. The paper-covered volume has 110 pages, and deals with native and cultivated plants. The cultivation is suggested as a means of livelihood for crippled soldiers; descriptions are given of plants, cultivation and drying methods, selection of plants, the acreage required, average prices and the extent of demand. A chapter gives consideration to upwards of 50 drugs, and the volume is concluded with an extensive bibliographical index.

Ash Determination of Drugs. By Friedrich Adler, apothecary in Emmendingen, an inaugural dissertation presented to the University of Basel, for the degree of Doctor of Philosophy. The author acknowledges with thanks the assistance and valuable instruction of his teacher, Prof. Dr. H. Zörnig. The work reports his ash determination of eighteen drugs, whole and powdered; the methods are fully described. The thesis closes with a tabulation of ash percentages given in 14 Pharmacopoeias representing 192 drugs. Publisher, H. M. Muth, Freiburg.

Bibliography of Glucosides and Saponins (Pharmaceutical Chemistry of the past century). A reprint from numbers 39 and 40, *Apotheker-Zeitung* (Swiss), September 29 and October 6, 1921.

For the above German publications the ASSOCIATION is indebted to Prof. Dr. H. Zörnig, Honorary Member.

Proceedings of the 10th Annual Meeting of the American Drug Manufacturers' Association. The volume contains about 400 pages. Part I is concerned with minutes of the convention in New York City, April 11-14, 1921. In the reports of officers and committees there is much interesting information relating to drug

markets, legislation, sales, etc. Part IV contains memorials to deceased members; all of the deceased were also affiliated and active in the A. Ph. A. The constitution and by-laws of the Association are printed in the appendix. Parts II and III are devoted to scientific matters, such as chemical tests and standards, and reports on drugs and preparations, etc., represented by papers and discussions by members of the Association, who are in a large way engaged in drug manufacturing.

Proceedings of the forty-fourth Annual Meeting of the Pennsylvania Pharmaceutical Association, held in Philadelphia, June 8-10, 1921. Besides the transactions of the convention, the volume contains the new pharmacy laws, relating to registration of drug stores, advertising of medicines for venereal diseases, and sale of narcotics.

Bulletins and Reprints, United States Public Health Service:

"Meningococcus Carriers," their recognition and treatment; "The Bacteriological Examination of Water," comparative studies of media used; "Biological Products," establishments licensed for the propagation and sale of viruses, serums, toxins and analogous products; "The Simulation of Disease," drugs, chemicals and septic materials used therefor; "Experimental Typhus Fever in Guinea Pigs," a description of a scrotal lesion in Guinea Pigs infected with Mexican typhus; "A New Disinfectant-Testing Machine;" "Bread as a Food," changes in its vitamin content and nutritive value with reference to the occurrence of pellagra; "Trinitrotoluol," practical points in its safe handling; "Control of Diseases in Establishments for the Manufacture and Loading of High Explosives," report of Divisional Committee on Industrial Diseases, etc.

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