

the standardization of the *materia medica* and the dosage. The General Toxicology is a study of poisons.

Therapeutics as all other subjects, shows a system of treatment of the drug and of the condition for which it is administered and applied. Rules are laid down for the physician for prescribing application and action. Anesthetics, narcotics, sedatives, hypnotics are comprehensively studied individually, in groups, in combinations, dosage, etc. Another division includes the heart, the blood, circulation, glands, vitamins, hormones; the lungs and other organs receive systematic consideration.

Therapeutics, as all other subjects, shows a system of treatment of the drug and of the condition for which it is administered and applied. A criticism of the work might be that the effort is too comprehensive, a review prepared accordingly would require lengthier discussion than it is possible to give, and the author is favorably known to those who will use the volume.

*The Plant Alkaloids*, by THOMAS ANDERSON HENRY, director, Wellcome Chemical Research Laboratories. Third Edition. Published by P. Blakiston's Son & Co., Inc., 1012 Walnut St., Philadelphia, Pa. 689 pages; washable fabric; price, \$12.00.

Much new information has accumulated concerning plant alkaloids since the publication of the second edition. The third edition has involved rewriting the volume and adding considerable to its bulk. The material available has been compiled primarily on the basis of chemical classification according to nuclear structure. This primary classification has been modified in a biological direction wherever necessary. Where this has resulted in some groupings being dealt with in more than one place, cross-references have been provided to obviate any inconvenience due to this departure from a rigid system. The author has kept in view the various aspects of the subject and the articles on all of the more important alkaloids describe the properties, chemistry, occurrence, methods of estimating and physiological action.

The table of contents consists of the following: Pyridine Group—Piperidine and Acylpiperidines, Alkaloids of *Ricinus communis*, Foenugree, Areca Nut, Hemlock, Lobelia, Tobacco, *Anabasis aphylla* and Pomegranate Root Bark; Tropane Group—Solanaceous Alkaloids, Alkaloids of *Dioscorea hirsuta*, Coca

Leaves (*Erythroxylon coca*); Lupinane Group—Alkaloids of the Papilionaceæ: Lupinine, Lupanine, Sparteine, Anagyrine, Cytisine, Matrine and the Associated Bases; iso-Quinoline Group—Alkaloids of: Cactaceæ Mezcaline, Anhalamine, etc.) Hydrastine, Papaveraceæ (botanical distribution), Opium (benzylisoquinolines; Morphine Sub-group, including Sinomenium Bases), Other Papaver spp. (Rhoeadine, Aporeine, etc.), Other Papaveraceous genera ( $\alpha$ -Homochelidonine, Chelerythrine, Chelidonine, Sanguinarine, etc.), *Corydalis* and allied genera (Tetrahydroprotoberberines; Cryptopine Sub-group; Aporphine Sub-group: Phthalideisoquinolines), Lauraceæ and Monimiaceæ (Laurtetanine, Actinodaphnine, Pukateine, Laureline, etc.), *Ipecacuanha* (Emetine, Cephæline, etc.), *Berberis* spp. (Berberine, Canadine, Berbamine, Oxycanthine, etc.), Menispermaceæ (Coclaurine, Dauricine, Trilobine, Menisarine, Berberine, iso-Chondrodendrine, etc.), Curare (Curine, Tubocurarine, Protocuridine, Neoprotocuridine, Calabashcurarine); Phenanthridine Group—Alkaloids of Amaryllidaceæ (Lycorine, Sekisanine, Tazettine and the Allied Bases); Quinoline Group—Alkaloids of Echinops, *Dactamnus* and *Skimmia* spp., *Cusparia* Bark (*Cusparine*, *Galipine*, etc.), *Cinchona* spp. Quinine, Quinidine, Cinchonidine, Cinchonine, etc.); Indole Group—Alkaloids of *Abrus*, *Erythrina*, *Arundo*, *Calycanthus* spp., *Peganum Harmala* (*Harmaline*, *Harmine*), *Evodia rutaecarpa* (*Evodiamine*, *Rutecarpine*), *Yohimbe* and *Quebracho* (*Yohimbine*, *Corynanthine*, *Corynantheine*, etc.), *Ergot* (*Ergotoxine*, *Ergotamine*, *Ergometrine*, etc.), *Calabar Bean* (*Physostigmine*, etc.), *Strychnos* spp. (*Strychnine*, *Brucine* and the Allied Bases); Pyrrolidine Group—*Carpaine*; *Quinazoline* Group—*Vasicine* (*Peganine*); *Glyoxaline* Group—Alkaloids of *Pilocarpus* spp.; Alkaloidal Amines—*Damascenine*, *Hordeine*, Alkaloids of *Ephedra* spp., *Brassica* spp., *Cheiranthus* and *Erysimum* spp., *Colchicum autumnale*, *Amanita muscaria*; Alkaloids of Undetermined Constitution; Minor Alkaloids.

In most cases the original memoirs have been consulted and references to these are given in the footnotes. For description of the physiological action of the better-known alkaloids Cushny's "Textbook of Pharmacology and Therapeutics," has been largely utilized. The chemical nomenclature and system of abbreviations are those of the book as well as several important tables.—EMERSON C. BEBLER.