

BOOK NOTICES AND REVIEWS.

Éléments de Pharmacodynamie Spéciale. By EDGAR ZUNZ. 2 volumes. Editors, Masson & Cie. Paris, 1932. Price, 190 francs.

Éléments de Pharmacodynamie Spéciale consists of two octavo volumes, comprising 1272 pages, 167 figures and 181 tables, and is a sequel to a previous publication entitled, *Éléments de Pharmacodynamie Générale*. The three volumes together comprise what is probably the most pretentious and valuable work on general and special pharmacology in the French language. The author, not a Frenchman but a Belgian, has been professor of pharmacology at the University of Brussels for many years and is regarded as one of the outstanding pharmacologists of Europe.

The work is unique in several respects. The method of classification of various drugs is partly chemical, partly physiological and partly clinical and therapeutic, the author's primary object having been to produce a reference handbook which would be most useful for the rational therapist as well as for the specialist in pharmacology. The method of treatment is for the most part that which is employed in the latest texts on pharmacology and consists of a brief historical résumé of the particular medicament under discussion followed by a description of its chemical properties, methods of preparation, etc., and a detailed pharmacodynamic analysis of its effects on various physiological functions, the article concluding with a discussion of therapeutic applications of the drug.

There are thirty-three chapters in all. A brief introduction is given in chapter one. To the second chapter are assigned the narcotics of the fatty acid series, including alcohols, general anesthetics, hypnotics and various theories concerning their narcosis. Chapter three is devoted to local anesthetics. Chapter four deals with opium and related compounds. Then follow two chapters setting forth what the author calls "Modifiers of Reflexes," bromides, valerian, etc., on the one hand, and paralyzants of the higher central nervous system, aconitin, delphinium, veratrum, etc., on the other. Chapter seven is devoted to tropines, scopolines and related drugs. Chapter eight deals with ergot and yohimbine. Nicotine and related alkaloids are discussed in chapter nine. The tenth chapter is devoted to apocodeine and the eleventh to curare and curare-like bodies. Strychnine and excitors of the spinal cord are described in chapter

twelve. Pilocarpine, physostigmine and choline are discussed in chapter thirteen; adrenaline is treated in chapter fourteen; antipyretics in chapter fifteen; salicylates in chapter sixteen; and heart drugs in chapter seventeen. Chapter eighteen is devoted entirely to vasoconstrictors other than adrenaline while chapter nineteen deals with various vasodilators, including histamine. Diuretics are described in chapter twenty. Chapter twenty-one, comprising about forty pages, deals with internal secretions of the thyroid, parathyroid, suprarenal, male and female sex organs, hypophysis and insulin. A separate chapter is then devoted to other hypoglycemic substances. Chapter twenty-three deals with alkaline metals and earths. Chapter twenty-four, entitled, "Modifiers of Nutrition," contains a study of arsenicals, phosphorus, vanadium, colchicum, iodine and iodides, and vitamins. Chapter twenty-five is assigned to drugs affecting the blood and discusses iron, manganese, chlorophyll, benzene, nucleotides, thorium and mesothorium, X-rays and radium, sodium citrate, oxalates, fluorides, etc. Chapter twenty-six, one hundred pages long, contains an excellent description of the action of drugs upon the gastrointestinal tract from both the purely pharmacodynamic and the therapeutic points of view. Chapter twenty-seven, dealing with action of drugs on the respiratory system, is divided into five sections on (1) excitors and (2) depressors of the respiratory center, (3) expectorants, (4) modifiers of bronchial secretion and (5) antiasthmatics. The twenty-eighth chapter of this work is not only novel but also extremely useful from the standpoint of practical therapeutics. It is entitled, "Medicaments Acting Chiefly on the Skin," and describes a large number of drugs which are used in dermatological practice. This list includes not only caustics, counterirritants and parasiticides but also dyes and thallium. Chapter twenty-nine contains an exposé of various anthelmintics and vermifuges. In the thirtieth chapter more than one hundred pages are devoted to antiseptics and disinfectants. Since it gives complete information on practically every antiseptic known at present, this chapter is one of the most valuable in the whole work. The subject is divided into sections on (1) surgical antiseptics, (2) skin antiseptics, (3) intestinal antiseptics, (4) pulmonary antiseptics, (5) genito-urinary antiseptics and (6) disinfectants. Chapter thirty-one is devoted

to chemotherapy. Here we find a discussion not only of quinine and arsphenamine but also of the newer bismuth preparations, the various dyes which are employed for chemotherapeutic purposes and a study of antimonials, agents employed for antidysentery, gold compounds for intravenous use, chaulmoogra oil and esters, etc. The last two chapters are assigned to vaccines and non-specific protein therapy.

The work is up-to-date and contains a description of some of the latest drugs. Thus, for instance, under cardiac drugs we read of hexeton, cardiazol and coramin. Again, we find detailed accounts of avertin, amytal, uroselectan and other recent developments of pharmaceutical chemistry. There is a detailed description of the pharmacology of benzyl benzoate and of the benzyl esters as well as of benzyl alcohol and of some of its derivatives. Among the newer antiseptics, a section is devoted to mercurochrome although the author lays too much emphasis perhaps on the use of this drug as a chemotherapeutic agent for intravenous injection.

As is the case with almost every reference handbook, a number of errors of omission and commission may be noted in these volumes. Thus, for instance, the section dealing with carbolic acid poisoning is inadequate especially in regard to the latest methods of treatment in such cases. Again, we are surprised at the omission of Barger's name in connection with the chemistry of ergot and likewise with that of W. H. Howell in connection with heparin. The chapter on antipyretics is not very satisfactory. On the other hand, the author gives an unusual amount of space to the discussion of sparteine, a drug little used in the United States.

A valuable feature of Professor Zunz's work are the numerous tables and graphs scattered through its pages. An extensive bibliography is appended to each chapter. In this connection, we cannot refrain from remarking that many names familiar to Americans are not found in the bibliographies, while numerous other authors, more or less unknown to us, are cited. This, of course, is one of the invaluable advantages to be derived from the reading of foreign texts in scientific literature of any kind. A study of such works gives the student a more correct perspective of the subject as a whole. The scientific literature of any nation, while claiming to be impartial and to recognize no distinction of race, creed or color, is very often

tinted by the personal predilections of the powers that be in the higher educational institutions of that country. To use an expression of Dr. E. J. Dingwall, a psychologist, "This gives rise to a new witchcraft. The scientific manner of thinking is forgotten and the student is liable to accept conclusions because they are advocated by some person of prominence," or by some coterie of men who have arrogated to themselves the power of passing judgment on the works and productions of other non-political investigators. The monumental work of Professor Zunz will probably not meet with the unqualified approval of the Council on Pharmacy and Chemistry of the American Medical Association. Furthermore, as we glance over some of the more important chapters of these volumes, such as those on adrenaline, insulin, pituitary, opium alkaloids and heart drugs, for instance, we are surprised to find that credit for the fundamental discoveries on those subjects is not preëmpted even to a moderate degree by those exalted American pharmacologists whose names are usually quoted in this connection.

Because of the author's race, this important treatise will probably be relegated to the *Index Purgatorius* of the Nazis, or even consigned to the *auto da fé*, but in the opinion of the reviewer the *Éléments de Pharmacodynamie Spéciale* of Professor Zunz should be classed with the most invaluable reference books on the subject of pharmacology.—DAVID I. MACHT.

The Pharmaceutical Syllabus. Outlining the Course of Instruction for the Degree of Bachelor of Science in Pharmacy (B.S.Pharm.) 4th edition. Prepared and published by the National Syllabus Committee, representing the AMERICAN PHARMACEUTICAL ASSOCIATION, the American Association of Colleges of Pharmacy, the National Association of Boards of Pharmacy. The chairman is J. G. Beard; the Executive Committee is composed of R. A. Lyman, T. J. Bradley and A. L. I. Winne. The Subcommittee chairmen are: *Materia Medica*, H. M. Burlage; *Chemistry*, Glenn L. Jenkins; *Pharmacy*, E. Fullerton Cook; *Cultural and Basic Subjects*, R. P. Fischelis.

The *Historical Introduction* is complete and gives the organization of the several revisions. The Preface to the 4th edition states that "the Pharmaceutical Syllabus is intended to indicate the subject matter that schools of pharmacy may profitably teach and to set forth that