

BOOK REVIEWS

The Pharmacology of Anesthetic Drugs. Second Edition. JOHN ADRIANI, M.D., Instructor in Anesthesia, New York University College of Medicine; Assistant Visiting Anesthetist, Bellevue Hospital, New York City.* 86 pages. Springfield, Illinois: Charles C. Thomas, 1941. Price \$3.50.

The competent anesthesiologist should be well grounded in the basic sciences of anatomy, physiology, pharmacology, chemistry, and physics. His knowledge must extend far beyond the formerly accepted limits when he was considered a good anesthetist if he were conversant with the pharmacological action of the drug he administered. Today he must be capable of correctly evaluating the physical status of the preoperative patient, be able to advise the proper preanesthetic medication, as well as know how to employ safely the agent and technic appropriate to each individual patient. The anesthesiologist must be conversant with all complications, from apnea and arrhythmia to ventricular fibrillation and vomiting. He should be able to undertake prompt and adequate measures for their relief. In the postoperative patient familiarity with the pharmacological action of the narcotics and sedatives will permit him to offer the proper medication. He must be acquainted with the signs and symptoms of hypoxia and be able to institute oxygen therapy. The careful anesthesiologist in his postanesthetic care of the operative patient will be alert

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for the sequelae which commonly follow anesthesia.

It is unfortunately true that the busy specialist finds it impossible to keep himself well informed on all these branches of anesthesiology. Rarely will he be able to keep abreast of the latest developments in every phase of his specialty. For him, Doctor Adriani's monograph will be especially valuable. In it are presented, in outline form, these problems of the anesthesiologist and a discussion without verbiage of their salient features. The long accepted and well established points of the specialty are adequately considered together with the newer and more controversial issues.

The work begins, quite properly, with a discussion of the theories of narcosis and the absorption and elimination of anesthetic drugs. Before entering into a detailed description of the individual agents, it continues along broad lines with a discussion of the effects on the circulatory, respiratory, and nervous systems of the anesthetic drugs and of oxygen want and CO₂ excess. All the generally used anesthetic agents are then given unique treatment. Each is presented in orderly, concise fashion in outline form. The profuse use of diagrams, manikins, and sketches makes the assimilation of the multitude of facts easy. Each of the agents is treated similarly to nitrous oxide which, by way of illustration, is discussed from the standpoint of history, preparation, physical and chemical properties, inflammability, modes of administration and tensions necessary to produce unconsciousness, physiological effects on each of some thirty different organs of the body, and al-

terations in composition of the blood and urine following its use.

An excellent section on local anesthetic drugs brings out the chemistry, the general systemic and the toxic effects of this widely used, but little discussed, group of drugs.

A few of the other important problems considered are premedication, technic of administration of the various volatile agents, an evaluation of the "circle" and the "to and fro" carbon dioxide absorbers, postanesthetic complications, and a discussion of fires and explosions.

A glossary of pertinent chemical and physical terminology, a posologic table, and a well arranged index enable the anesthesiologist to make quick and easy reference.

The volume's comprehensive bibliography will be a valuable aid to the student; its emphasis upon the physiological and pharmacological aspects of anesthesiology makes it a helpful guide for the teacher; its streamlined, yet complete, form will provide the busy internist and surgeon with a ready answer to his occasional anesthetic problem.

"The Pharmacology of Anesthetic Drugs" is in no sense a manual on the *how* of Anesthesiology; it is the most extensive and readable *why* that has ever been compiled.

D. H. B.

Control of Pain in Dental Practice.

J. L. T. APPLETON, D.D.S., Acting Dean and Professor of Bacterio-Pathology, Evans Dental Institute, University of Pennsylvania. 189 pages, 16 illustrations. Philadelphia, J. B. Lippincott Company, 1940. Price \$3.00.

Fear of pain attending dental operations still ranks foremost among the real or fancied fears of people in all walks of life.

This book represents the collected

papers of authors carefully chosen for their exceptional competence in their respective fields, the end result being an excellent treatise on the modern methods of controlling pain in dental practice. It is divided into eight chapters, the first four of which deal primarily with the anatomic, physiologic, psychologic and psychiatric aspects of pain and pain control; the latter half assumes the more practical consideration of the pharmacodynamics of the various drugs employed in the control of pain. A short chapter on the early history of pain control is included, as is a very practical clinical report of the importance of the physical factors in the control of pain in dental practice.

The chapter on anatomy is unique in that very little time is spent reviewing the accepted anatomic descriptions of the nerves involved in the distribution of pain in dental disease. The author has very properly confined his remarks to the pain more difficult to diagnose. His clear and concise interpretations are based on an accurate knowledge of the anatomy involved, and will undoubtedly be of invaluable assistance to every practitioner.

The controversial subject of the innervation of the dentin has been presented in great detail. As might be expected, no conclusion was reached, but to one interested in the subject, a complete bibliography, both pro and con, is appended to the chapter.

The physiology of pain reiterates accepted principles of conduction of nerve impulses and the individual susceptibility to threshold stimuli for pain. The author has aptly outlined the reflex response to pain as it may affect the skeletal and autonomic systems, and has also established the basis for referred pain to characteristic areas on the face and neck as may be projected from the teeth and their anexa.