

Anesthesia and Analgesia—March-April, 1937

sometimes squill, would bring up a low Crampton Value. He stated digitalis would first reduce the systolic pressure difference, next the pulse rate difference, and lastly the diastolic difference, all depending upon the capacity of the circulation to react. From an entirely indifferent source, however, our attention

given the Crampton Test. All who showed a rating below 65 were reserved from operation and digitalized until the test rose above 65. Two results were definite.

(1) We verified Crampton's statement that digitalis would raise his index.

(2) We experienced no case of shock and we did not lose a patient. Whether or not we would have had shock and lost a patient without digitalizing no one will ever know, but the patients lived.

We must remember that these cases received also rest and hospital care as well as digitalis, and their condition did not compel immediate operation.

TABLE 4
Typical Cases Not Digitalized Before Operation

Operation	Crampton Value	Result
Cholecystectomy	85 no digitalis	good
Femoral Hernia	80 no digitalis	good
Hysterectomy	100 no digitalis	good
Salpingectomy	100 no digitalis	good
Cholecystectomy	80 no digitalis	good
Cholecystectomy	65 no digitalis	good
Hysterectomy	70 no digitalis	good

was called to the experiences of A. W. Ward, M. D., Chief of a Surgical Division of the Englewood Hospital, who, without knowledge of the Crampton Test, had begun to use digitalis empirically in weak patients preparing them for operation. He got good results. "The patients improved in tone and did well."

Accordingly, we adopted the following course. If possible, all patients were

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1. Crampton, C. W.: The Gravity-Resisting Ability of the Circulation. *Am. Jl. Med. Sci.*, CLX:5, 721 (Nov.) 1920.
 2. Winslow, C. E. A.: Some Results of the First Year Work of the N. Y. State Ventil. Com. *Jl. Am. Pub. Health*, V, No. 2.
 3. Prevention and Care of Athletic Injuries.—National Collegiate Athletic Assn.
 4. Norris & Lane: *Arch. Diagnosis*, July 1917. (See also Norris, G. W., "Blood Pressure, Its Clinical Applications," Lea and Febiger, Phila. & N. Y., 1914.)
 5. The Diagnosis and Treatment of Variations in Blood Pressure and Nephritis, Mosenthal, N. Y. *Oxford Univ. Press*, 1929, "Crampton Index," 60.

Inhalation Anesthesia: A Fundamental Guide. By Arthur E. Guedel, M.D., Associate Clinical Professor of Surgery (Anesthesia), University of Southern California School of Medicine. Cloth, 12 Mo. 172 Pp. Illustrated with charts. The MacMillan Company, New York City, Publishers, 1937.

INTERNATIONAL ANESTHESIA has long awaited a text from Guedel, who has reached such preeminence in the specialty and his current volume will be gladly welcomed and deeply appreciated. Due to the deplorable lack of knowledge of anesthesia in the U. S. Army Medical Corps during the World War, Guedel found himself in the embarrassing position of providing pain relief for wounded soldiers in several base hospitals of the war zone. The only available personnel was made up of nurses and enlisted men of the Army Medical Corps, with little or no medical training or background.

By means of a motor-cycle he was able to visit, once daily, several base hospitals and there to instruct and supervise untrained and inexperienced personnel in the clinical use of anesthesia. The necessity was obvious for a simple and rapid means of teaching physical signs and danger signals which could be readily grasped by the uninitiated. Also evidence was needed which could tell him at a glance, on his short daily inspection visits, whether the personnel was applying instruction which had previously been received.

As the result of careful and accurate observation during the war, a fund of information was amassed. These data have been subjected by Guedel to experimental study and leisurely contemplation during the intervening years. As a result Guedel has evolved a technique of teaching which has been found exceptionally fruitful in the hands of others as well as himself in the instruction of undergraduate and graduate medical students.

While some of the material which constitutes the current volume has been previously published, much has never before been printed; and the whole has not previously been gathered together in an orderly fashion.

Part I deals with the basic principles of inhalation anesthesia, such as the mechanism of inhalation anesthesia; stages of anesthesia; signs of anesthesia; depth of anesthesia required for control of surgical reflexes, depth of anesthesia

Anesthesia and Analgesia—March-April, 1937

necessary for various surgical procedures; potency of the various anesthetic agents; the mechanism of various anesthetic requirements; preparation of the patient and selection of the anesthetic agent. This part of Guedel's book will certainly prove essential to teachers and students in our medical schools and in addition graduate physicians whether specialists or general practitioners, will find in these chapters a rational answer to many of their anesthetic problems.

Part II of the Guedel book deals with difficulties and deaths under anesthesia and discusses in considerable detail such problems as: accidents due to changes in blood pressure during anesthesia; ventricular fibrillation; central respiratory failure; accidents due to peripheral respiratory interference; nitrous oxid in obstetrics; breath holding; pharyngeal and laryngeal spasm; tongue swallowing; and aspiration of debris, with methods of prevention and treatment.

Also such miscellaneous accidents as massive atelectasis, tracheal collapse, convulsions under anesthesia, status lymphaticus, embolism, tachycardia, injuries from liquid and vapor anesthetics, as well as postoperative hyperthermia, cerebral asphyxia and cyanosis are dealt with. The volume closes with chapters on anesthetic explosions and a number of very valuable selected references are given.

Guedel in his preface remarks that the road guide for the motorist is intended to get him to his destination. It points out the landmarks necessary to that end, but avoids unnecessary detail. Each time the motorist travels the road he notes something he had overlooked on his previous trips, but ultimately he gets to know the road even to knowing what to expect in the way of varying conditions.

Like the road map for the motorist, Guedel's fundamental guide is intended to help the anesthetist through his early ventures in general anesthesia and while it intentionally treats lightly the more complicated physiological and pharmacological mechanisms of anesthesia, describing these only to the extent necessary in their clinical application, it is much more complete in necessary detail in dealing with such factors as the "signs of anesthesia".

Waters, who contributes the foreword, sums up his opinion of Guedel's book as follows: "The methods of Guedel have long been used by many of us. Personally, I am very happy at the prospect of having available the contents of this small book as an aid in my attempts to convey to medical students and young physicians the principles and practices of inhalation anesthesia."

Guedel dedicates his volume to "Laurette and Frank H. McMechan in appreciation of their untiring efforts towards the advancement of anesthesia", and needless to say the recipients of this dedication appreciate it as one of the finest things that has come in their lives.

Visceral Disturbances After Operations for Brain Tumors. B. Schlesinger.

Deutsche Zeitschrift für Nervenheilkunde, 138:75 (August 26) 1935.

SCHLESINGER CALLS attention to the fact that after intracranial interventions, particularly those near the brain stem, functional disturbances occasionally develop in the region of the sympathetic vagus nucleus or of its superordinated diencephalic centers, which in turn may lead to dangerous, even fatal, visceral disturbances (Cushing, Hess). In the lungs these disturbances become manifest as an abnormal permeability of the vascular walls with resulting pulmonary edema, and in the region of the esophagus, stomach or duodenum as loss of substance, which may appear in all the transitional stages from hemorrhagic erosions to penetrating ulcers with their sequels. In one of the two cases described by the author (meningioma of the posterior cranial fossa) the severe pulmonary edema that developed in complete cardiac sufficiency and had a tendency to relapse could be effectively counteracted by a puncture of the ventricle. The second patient whose history is reported died of a gastric hemorrhage. In this instance the tumor, a basofrontal meningioma, had no relations to the brain stem; however, a chronic increase in the cerebral pressure had apparently produced a functional disturbance in the nerve centers mentioned.