

BOOK REVIEWS

THE RESPIRATORY MUSCLES – MECHANICS AND NEURAL CONTROL.
By E. J. M. CAMPBELL, E. AGOSTONI AND J. N. DAVIS, Toronto, W. B. Saunders Co.
Canada, 2nd Ed., 1970. \$15.15.

THE ANAESTHETIST IS frequently his patient's respiratory muscle and this book has obvious relevance to anaesthesia. But this book is somewhat like listening to the Ring: there are a few hummable tunes, it is very easy to get lost and when lost can be either exasperating or soporific. But like any serious work it requires considerable persistence before it becomes rewarding. It starts with a very good description of the general properties of striated muscle. The next chapters on Kinematics, Statics, Dynamics, and Energetics is very difficult indeed. Part of the trouble is compression; it is an up-dated version of sections of Respiration Vol. 1 (Handbook of Physiology Series), dealt with in a less leisurely fashion. The next section, on the action of the individual muscles of respiration, is admirably clear. The section on control and organization is probably the most interesting in the book. It starts with a very lucid description of neural control, then a fascinating chapter on the mechanical stability of the respiratory pump in the face of varying loads and finally a chapter on respiratory sensation. Appreciating this chapter justified the effort in reaching it, because this book is exploring the mechanical and neurological basis for breathlessness and dyspnoea. It provides no simple answers, but develops a sound working hypothesis. Finally, there is a section on the respiratory muscles in disease, which seems to be written for those who have to pass exams; its very hummable. But when the exam is over one should go back to the beginning to appreciate the remarkable research opportunity that the anaesthetised patient presents.

A.C.B.

MECHANICAL ARTIFICIAL VENTILATION. A MANUAL FOR STUDENTS AND PRACTITIONERS. By TERRING W. HEIRONIMUS III. Springfield, Ill., U.S.A. Charles C. Thomas, 2nd Ed. 1970. \$8.50.

IN THE PREFACE to the second edition the author states "it is by no means a complete and exhaustive survey nor is it meant to be." The statement is also made that it is written for students, house officers, nurses, and practitioners who care for patients in impending or existing respiratory failure. With this in mind, the book is well written and the subject matter covered adequately.

The material is organized into several sections, the first being entitled "When and how to do it" followed by a section generally covered by the statement "Find out later why you did it." It is felt by the author that some direction for the treatment of the patient with respiratory failure requiring assistance is essential and should be presented at the beginning of the manual. It is, therefore readily accessible to the inexperienced practitioner with the minimum of searching. It is, as the author states, indefensible to remain in a state of ignorance about the details of how ventilation may be accomplished safely. This information is found in the succeeding chapters. As with any other small manual or handbook on this subject (160 pages) it is impossible to outline all the information necessary to manage the variety of patients with respiratory failure who require mechanical ventilation.

This book, therefore is an introduction to the subject and its deficiencies are somewhat overcome by the inclusion of over 300 references which are both topical and current. It offers a good overview of the field with a well-ordered introduction to the literature and is recommended for this purpose.

A.A.S.

PHYSIOLOGY AND PHARMACOLOGY OF LOCAL ANESTHESIA. By RUDOLF H. DE JONG. Springfield, Ill., U.S.A. Charles C. Thomas, 1970. \$12.50.

THIS MONOGRAPH is a scholarly and well organized distillation of current knowledge in the field. The discussion ranges from the structure and function of nerve fibres through structure-activity relationships of the local anaesthetic drugs, considerations of the influence of concentration, and the function and diameter of the nerve fibre on nerve block by the local anaesthetic agents, the systemic effect of local anaesthetics, and the eventual fate and disposition of these drugs. The volume requires and deserves careful reading, but certainly the anaesthetist or surgeon interested in regional anaesthesia in its many forms will be well repaid by the effort.

R.A.G.

SCIENTIFIC FOUNDATIONS OF ANAESTHESIA. CYRIL SCURR AND STANLEY FELDMAN, Editors. London, William Heinemann Medical Books Ltd., 1970, Toronto, Bellhaven House. \$30.00.

THIS VOLUME CONSISTS OF well organized chapters by thirty-seven different contributors. It deals in a most adequate way with the physical, physiological, and pharmacological basis of modern anaesthesia and instrumentation associated with anaesthesia. The uniformly high quality of the material and its organization reflect great credit on the authors and the editors. It can be most highly recommended to all classes of readers interested in anaesthesia, from the undergraduate to the academic specialist.

The reviewer considers that the physical format of the book is a misfortune. Its dimensions (8 $\frac{3}{4}$ " \times 11 $\frac{1}{4}$ ") make it awkward to handle and rather too large for many bookshelves.

R.A.G.

PRINCIPLES AND PRACTICE OF SPINAL ANESTHESIA. By P. C. LUND. Springfield, Ill., U.S.A. Charles C. Thomas, 1971. \$37.75.

DR. LUND'S TREATISE on spinal anaesthesia can only be described as monumental, and is undoubtedly the most complete and extensive work on the subject to appear in a single volume. The references are most extensive, and there can be no doubt that anything which the reader fails to find in Dr. Lund's text will be found by consulting the reference lists. Although there is some repetition in the text, this appears to serve the purpose of making a rational and complete discussion of each section, and so sparing the reader the necessity for reference to other parts of the text to understand what is being said. With this there can be no quarrel. This is, indeed, a most worthwhile addition to the anaesthetic library, and should be available to all students and practitioners interested in spinal anaesthesia.

R.A.G.

LE SYSTEM ADRENERGIQUE, EN ANESTHÉSIOLOGIE ET EN RÉANIMATION. Journées d'enseignement post-universitaire d'Anesthésiologie et de réanimation. Paris. 1969. Un volume de 470 pages, 79 figures. 1970. Relié : 100 francs. Librairie Arnette Editeur, 2, rue Casimir-Delavigne, Paris 6^e, France.

DANS SA PREMIÈRE PARTIE, cet ouvrage fait d'abord un exposé des éléments fondamentaux permettant de comprendre l'anatomie et la physiologie du système adrénérgerique et sa dynamique au niveau des différents organes.

Cette étude apporte une classification simple et des données thérapeutiques logiques face aux problèmes soulevés par les modalités d'action des adrénériques et des adrénolytiques.

Dans sa deuxième partie, cet ouvrage analyse, sous le préambule des principes fondamentaux, les données cliniques, physio-pathologiques et thérapeutiques que doit envisager le clinicien devant les problèmes consécutifs à la dysrythmie adrénérique.

Pour l'étudiant en médecine, c'est un précieux élément de travail permettant une connaissance progressive et rationnelle des principes fondamentaux de la physiologie et de la pharmacologie des adrénériques et conséquemment de leur indication thérapeutique.

Pour l'anesthésiste-réanimateur, c'est un ouvrage de base mettant en relief les connaissances physio-pathologiques du système adrénérique en regard des différentes conditions de l'anesthésie (anesthésie générale, neuroleptanalgesie, hypotension contrôlée, hypothermie modérée, hypothermie profonde).

A.J.

THE ADRENERGIC SYSTEM, IN ANAESTHESIA AND RESUSCITATION. Post-graduate teaching in anaesthesia-resuscitation. Paris 1969. 470 pages, 79 figures, 1970. Bound: 100 francs. Published in French. Librairie Arnette Editeur, 2, rue Casimir-Delavigne, Paris 6^e, France.

THE FIRST PART of this publication elaborates on the fundamental elements for the proper understanding of the anatomy and the physiology of the adrenergic system and of its dynamic on the various organs.

This study underlines a simple classification and a therapeutical logic to the many problems resulting from the modes of action of the adrenergic and adrenolytic drugs.

The second part of this study investigates the clinical, physio-pathological, and therapeutical aspects confronting the clinician and his problems regarding the adrenergic dysrhythmiae.

To the medical student, it is a basic work allowing for a progressive and rational knowledge of the fundamental principles of physiology and pharmacology treating upon the adrenergic drugs and their therapeutical uses.

To the anaesthetist, it is a textbook giving the adrenergic system an objective dimension in face of the different procedures and techniques involved in anaesthesia (general, neuroleptanalgesia, controlled hypotension, mild hypothermia, deep hypothermia).

A.J.

PRÉCIS D'ANESTHÉSIE LOCO-RÉGIONALE. par P. GAUTHIER-LAFAYE, R. KIERNY, ET B. KELLER. Un volume de 167 pages, 107 figures. 1970. Relié : 60 francs. Librairie Arnette Editeur, 2, rue Casimir-Delavigne, Paris 6^e, France.

EN FRANCE, LA PRATIQUE DE l'anesthésie loco-régionale n'a pas encore atteint le degré de popularité qu'elle occupe en Amérique du Nord. Ce précis d'anesthésie loco-régionale est l'une des rares publications françaises qui vient s'ajouter au célèbre traité d'anesthésie régionale publié en français d'abord puis en anglais par le Docteur Georges Labat.

Ces auteurs de Strasbourg présentent un exposé en six différents chapitres :

- (1) Pharmacologie des anesthésiques locaux.—Accidents.—Principes généraux de la technique.—Matériel.—Anesthésie par infiltration.
- (2) Anesthésie du membre supérieur (bloc du plexus brachial, du nerf médian, du nerf cubital et du nerf radial)

- (3) Anesthésie du membre inférieur (bloc du nerf sciatique, crural, fémoro-cutané, obturateur)
- (4) Bloc de l'abdomen, thorax, et cou (bloc du nerf intercostal, du plexus cervical).
- (5) Bloc du ganglion stellaire, du ganglion sympathique cervical supérieur, de la chaîne sympathique lombaire, du plexus solaire, et du nerf splanchnique, du nerf phrénique.
- (6) Bloc du nerf honteux interne, bloc paracervical.

Les 107 illustrations sont une excellente réalisation de B. Kuentz.

Cet ouvrage en langue française explique de façon aisée les techniques et les procédés de l'anesthésie loco-régionale.

A.J.

OUTLINE OF LOCO-REGIONAL ANAESTHESIA. By P. GAUTHIER-LAFAYE, R. KIERNY, AND B. KELLER. 167 pages, 107 figures. 1970. Bound: 60 francs. Published in French. Librairie Arnette Editeur, 2, rue Casimir-Delavigne, Paris 6^e, France.

IN FRANCE, THE PRACTICE OF loco-regional anaesthesia is not so popular as it is in North America. This outline is one of the few French publications to be added to the well-known textbook of Regional Anaesthesia written in French then in English by Dr. Georges Labat.

The authors are from Strasbourg. They divide their book in six different chapters:

- (1) Pharmacology of local anaesthetics.—Accidents.—General principles of the technique.—Material.—Infiltration anaesthesia.
- (2) Anaesthesia of the upper limb (brachial plexus, median nerve, ulnar nerve, radial nerve).
- (3) Anaesthesia of the lower limb (sciatic nerve, femoral nerve, lateral cutaneous, obturator).
- (4) Abdominal, thoracic and cervical blocks (intercostal nerve, cervical plexus).
- (5) Stellate ganglion block. Block of the superior cervical ganglion, block of the lumbar sympathetic, the solar plexus and splanchnic nerves).
- (6) Block of the pudendal nerves. Paracervical block.

The 107 self-explaining illustrations are designed by B. Kuentz.

This publication in French language explains in an easy and understandable way the techniques and procedures of loco-regional anaesthesia.

A.J.

ANESTHESIA FOR THE AGED. By PAUL H. LORHAN. Springfield, Ill., U.S.A. Charles C. Thomas, 1971. Toronto, McGraw Hill, Canada. \$10.00.

THIS VOLUME IS a revision of Dr. Lorhan's monograph on geriatric anaesthesia published in 1955. It serves a useful purpose in bringing to the attention of the anaesthetist the specific problems associated with aging and anaesthesia for the aged, and Dr. Lorhan carries his task through a discussion of the physiological problems of importance to the anaesthetist which may be encountered in these patients and the specific differences to be anticipated in their reactions to drugs and therapy associated with surgery and anaesthesia.

Unfortunately this volume brings little credit to the publisher; the many misprints and transpositions show evidence of bad proof reading, and much of it would have been greatly improved by just a little editorial attention.

R.A.G.

ELEMENTS OF PAEDIATRIC ANESTHESIA. By STEPHEN, C. R., AHLGREN, E. W., AND BENNETT, E. J. Charles C. Thomas, Springfield, Ill., U.S.A. 2nd edition, 1970, pp. 202. \$8.00.

KNOWLEDGE OF PHYSIOLOGY and anaesthesia have advanced considerably in the sixteen years since publication of the first edition of this text. Although the book has now doubled in size, the contents remain a pertinent synopsis of the essentials of paediatric anaesthesia.

Most aspects of paediatric anaesthesia of interest to anaesthetists in general hospitals are well described, as a result of the author's broad experience. Especially useful in non-metric hospitals is a table of dosages expressed in milligrams per kilo, per pound, and per stone. Many would disagree with using intramuscular succinylcholine to aid intubation. Prior passage of a bronchoscope before tracheotomy, in a small child, and use of methoxyflurane for bronchoscopy is not described. Signs of slipshod proof-reading are abundant: hyphens are often missing ("unionised, intraabdominal"), and whole phrases are lost on pages 13 and 169.

It is a pleasure to have this old friend return in the "new look" of longer length.

A.W.C.

COMPLICATIONS OF ANESTHESIA. LAWRENCE J. SAIDMAN AND FRANK MOYA (Eds). Springfield, Ill., U.S.A. Charles C. Thomas, 1970. \$12.75.

THIS VOLUME IS a published account of a postgraduate seminar in Anesthesiology sponsored by the Universities of Miami and Florida. Discussions of the complications of Anaesthesia have been contributed by twenty-five individuals, each of them an expert in his field rather than the practicing anaesthetist. The papers themselves vary widely in their topics are all of the utmost importance and timely. In several instances, a most useful discussion is appended to the chapters. Material is presented in crisp and readable form, and the volume is a most useful contribution to the anaesthetic literature. It should be read by every practising anaesthetist and anaesthetic trainee.

R.A.G.

NEUROELECTRIC RESEARCH. D. V. REYNOLDS AND A. E. SJOBERG (Eds). Springfield, Ill., U.S.A. Charles C. Thomas, 1971. \$27.25.

THIS BOOK PRESENTS selected papers from the 1969 conference of the Neuroelectric Society. It describes the present field of North American research into the non-convulsive uses of electric current applied to the body. The topics of interest to anaesthetists are electro-anaesthesia, electro-analgesia, and electrosleep. Although tutorial papers have been included to provide a background review of these subjects, most of the work described is new research or theoretical in nature, so this book is aimed at workers in the field rather than the practising anaesthetist. The papers themselves vary widely in their standard of writing and scientific investigation, a problem perhaps aggravated by the multidisciplinary nature of the research. Many papers are short descriptions of recent developments which suffer from their brevity, but some of the longer papers are excellent in both style and content. Although referencing is not extensive for individual papers, a large selection is nevertheless available from the 45 papers included in the 466-page book. An outstanding feature of this book is its exhaustive index, which highlights the skillful organization of the volume by its editors.

J.D.