control probably will always be difficult. Unless an outstanding discovery in the prevention and/or treatment of atherosclerosis, hypertension or both takes place, improvement will be too gradual to measure from one year to the next. Only when the statistics are compared by decades will the effects of these measures for stroke control become clearly evident."

Although not necessarily within the scope of this text, I would have liked to have seen a section devoted to recent controversies and experimental therapies in cerebrovascular disease, such as microsurgical revascularization procedures and barbiturate protection of the brain in ischemic states, not necessarily to advocate or condemn these newer treatments, but to apprise physicians of their potential usefulness and to encourage primary care physicians. More effective treatment for stroke may soon be available, but will demand early and more precise diagnosis. Referral of those patients that could then be benefitted by medical and surgical therapy not available in the community would then be more effective.

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The Nervous System. BY W. F. GANONG. Los Altos, Lange Medical Publications, 1977. Pages: 226. Price: $8.00.

This is an inexpensive, soft-covered text which, as the author explains in the preface, was essentially lifted from his eighth edition (1977) of *Review of Medical Physiology*. It is intended to serve as a ready reference for students engaged in integrated courses in the neurosciences. For the anesthesiologist, whether student or practitioner, it offers a nearly painless means of reviewing and updating knowledge of the physiology of the nervous system. The author is adept at presenting potentially complex concepts in a manner that is easily understood and, by integrating these concepts with material already discussed, makes the entire subject remarkably palatable. Comprehension is greatly aided by the liberal use of straightforward illustrations. At least half of the 17 chapters deal with topics of immediate application to the theory and practice of anesthesiology. These include chapters dealing with nerve transmission, muscle physiology, synaptic transmission, the reticular activating system, the electroencephalogram, the autonomic nervous system, cerebral circulation, and cerebral metabolism. If there is fault to be found, it is perhaps in the apparent paucity of references, which are listed following each of the three sections of the book. One hopes that this reflects selectivity, rather than incompleteness. Certainly most of the references are current and are largely made up of other textbooks and symposiums, rather than individual scientific articles. A thorough index is provided, which enables one readily to use the book as a reference text for reviewing specific basic concepts of nervous system function. There are several things which this book is not. It is not a textbook of neuroanatomy, although anatomic considerations are dealt with to the extent that these subserve function. It is not a thorough book, in the sense that none of the subjects is dealt with in an exhaustive fashion; rather, it provides a general overview of that which the author considers to be important for basic comprehension. It is not a "prestige" book that will enhance the appearance of one's bookshelf. It is instead a book that you might read.

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Physiology of the Heart and Circulation. BY R. C. LITTLE. Chicago, Year Book Medical Publishers, 1977. Pages: 226. Price: $8.00.

This is a book to be enjoyed by both novice and the experienced anesthetist. Hemodynamic function, be it of the heart as a pump or muscle, the circulation as a system of rigid or elastic tubes, or compartmental exchange by diffusion or active transport, is a fact of contemporary physiology and requires comprehension if we are to keep abreast of advances in clinical medicine. Each of these topics has been the subject of several learned monographs, few suitable for the less-than-expert. Dr. Little has managed to assemble the bulk of our knowledge in cardiovascular physiology into an updated format intended for medical and beginning graduate students. The monograph (a paperback and therefore of reasonable cost) is divided into three main sections of roughly 100 pages each, under the headings Physiologic Principles, Heart, and Circulation. Following a brief introduction, which covers the physical principles with only a modicum of mathematical formulas, the pertinent physiologic points are discussed in a terse style aided by drawings that are modified from the original literature.

Brevity is a virtue for the reader who wishes an overview to refresh the memory or prepare for specialty examinations. This monograph incorporates both, although complexity of the subject does require reading with the same care accorded a legal document. On the other hand, brevity carries certain hazards, exemplified by the discussion of mechanical activity of cardiac cells, or the physics of blood flow. This is a valiant attempt to cover a very complex subject such as the molecular mechanisms of cardiac contraction or rheology, unlikely to illuminate the novice or satisfy the expert. The same can be said of the section on Energetics of the Heart; yet, these comments are not meant to detract. I doubt that anyone can succeed with a presentation palatable to all sophisticated tastes.

No book of this sort can satisfy a reviewer's prejudices. As a rule, a heavy price is paid for simplification, and I admit to a negative attitude when I began my reading. Fortunately, this changed to enthusiasm on passing from the first to the second chapter. Granted that it does not replace available, extensive monographs on the subject, some now reissued after several revisions, but it does provide a sound review from which serious study can continue. The chapters on Dynamics of the Heart Beat and Output of the Heart were particularly satisfying, a reflection, one must suspect, of the author's exposure to the Wiggers school. I hope that the effort generated to produce this volume will not deter subsequent efforts at revision.

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Veterinary Acupuncture. BY A. M. KLIDE AND S. H. KUNG. Philadelphia, University of Pennsylvania Press, 1977. Pages: 297. Price: $35.00.

The authors' stated intent in compiling this book is to present the available world information on acupuncture in animals; to make available a starting point from which basic or clinical investigators can begin to devise studies for sorting out the riddle of acupuncture; to make available to animal owners the information on this subject that will help them to understand acupuncture and the possible benefits it may offer their animals; to make available a source from which veterinarians can find out what has been done in the theory and practice of veterinary acupuncture.

The literature is presented uncritically, and most anesthesiologists probably will find the written material to be of no interest to them. However, more than half the pages of the book are devoted to charts and tables describing the acupuncture points for the horse, cow, goat, cat, dog, and camel, which may be useful to anesthesiologists doing comparative acupuncture studies.

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Current Surgical Diagnosis and Treatment. Third edition. BY J. E. DUNPHY AND L. W. WAY. Los Altos, Lange Medical Publications, 1977. Pages: 1139. Price: $18.00.

This is the third edition, dated 1977, of the surgical volume in a series entitled, "A Concise Medical Library for Practitioner and Student."

In 1100 pages of clear print, at a reasonable price, with a sufficiency of attractive illustrations, the whole span of surgical knowledge is covered. The level must be of necessity superficial, as the book covers both diagnosis and treatment, offers general principles, pre- and postoperative care, general surgery by anatomic subdivision, radiation therapy, anesthesia, all the surgical subspecialties, including gynecology, and even a chapter on legal medicine for the surgeon.

The chapter on anesthesia devotes most space to local and regional techniques, and follows with a short review of general anesthesia and the commonly used agents and supplements. This is adequate to orientate the student to what he sees going on. It introduces such disappearing entities as chloroform, ethylene, and decamethonium, but not pancuronium, mestinon, physostigmine or diazepam, surely all "current."

Your reviewer is unable to assess critically the breadth of surgical knowledge represented, but all current operations and issues in surgery appear at least to gain mention.

The chapter on cardiac surgery, with good coverage of the anatomy and surgery of all the commonly seen lesions, covers the management of the patient post-perfusion with no pharmacology at all, and a single recommendation; to "raise the left atrial pressure above 20 torr 'to push the output up the Starling curve.'" A slightly more extended discussion of this subject may be found by referring back to the chapter on shock, but this seems excessively brief coverage in a book devoting 18 pages of close reasoning and formulas to postoperative respiratory failure. The surgeon in training today surely needs to know clinical physiology and pharmacology almost as well as his anesthesiologist.

The book is often seen around the operating areas in teaching hospitals, much underlined. Its popularity is attested by translation into four languages, with four more promised. It serves well for initial orientation to clinical work for a medical student. I hope surgical house officers would outgrow the text on many subjects early in their training. Should anyone slip into anesthesia training without a period as a surgical house officer, this book could help in orientation to surgical requirements.

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Ventilation/Blood Flow and Gas Exchange. Third edition. BY J. B. WEST. Philadelphia, J. B. Lippincott, 1977. Pages: 173. Price: $6.95.

Not many books by a single author go through three editions and three reprintings within the space of a decade, as has this monograph. The author, a well-known pulmonary physiologist, has made many contributions to the field. Because of his thorough understanding of ventilation/blood flow relationships and pulmonary gas exchange, this text provides a most lucid account of this difficult subject.

The third edition has changed but little from previous editions. In its opening chapter, the author describes oxygen transport from gas to tissues. He then discusses inequalities of blood flow and ventilation in the normal lung. This is logically followed by a discussion of inequalities of ventilation–perfusion ratios and their effects on regional gas exchange. Having provided a basis for the understanding of the CO_2–O_2 diagram in this chapter, the author proceeds to a discussion of the effects of inequalities of ventilation–perfusion ratios on overall gas exchange. He deals with the alveolar–arterial gas tension differences and the concepts of venous admixture and physiologic dead space. In the final chapter, methods for measuring ventilation–perfusion ratio inequalities are described. To this chapter he has added an informative description of the "inert" gas elimination technique developed in the author's laboratory by Dr. P. D. Wagner. This method allows estimation of a continuous distribution of ventilation–perfusion ratios in intact subjects and may provide, in the future, a useful tool in the clinical setting.

The monograph is characteristic of the author's style, very well written, and excellently illustrated. It can be recommended without hesitation to all medical students, residents, and physicians who deal with respiratory problems.

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Current Respiratory Care. EDITED BY K. F. MACDONNELL and M. S. SEGAL. Boston, Little, Brown, 1977. Pages: 489. Price: $14.50.

This book is based on an annual inhalation and respiratory postgraduate course founded by Dr. Segal. The contributing authors have very diverse backgrounds, and among them one finds specialists in thoracic disease, pulmonary function technicians, respiratory therapy technicians, and nurses; conspicuous by their absence are anesthesiologists. With these different backgrounds, one might expect that the qualities of the chapters and the depths of the reviews by the authors would vary considerably. Surprisingly, I found this was, in general, not the case. Inevitably, some chapters are not as informative and lucid as the major portion of the book.

The text is well organized, easy to read and, for the most part, adequately illustrated. I believe the book is successful in accomplishing its stated goal of bridging the "knowledge gap" and updating recent technical and medical advances for the various members of the respiratory care team.

The book is divided into six sections. The first deals with instrumentation, including mechanical ventilators, various transducers, gas electrodes, mass spectrometer, etc. It is probably