

physicians. This book—representing a collaboration of the medical schools of Zurich and Minnesota—is an effort to survey the available experimental and clinical evidence.

It is written in two parts, the first dealing with general views of topics which include immunology, technique and medicolegal aspects. A special chapter describes extracorporeal circulation and artificial heart and kidney devices. In the second section the problems related to the transplantation of specific organs are discussed. The style is fluent and clear; the illustrations consist of distinct drawings and photographs. A literature index at the end of each chapter will help the reader to find more detailed information. The book will serve any newcomer to a transplantation team—e.g., an anesthesiologist—as an excellent summary, placing his task in the right context and thus making his contribution more valuable.

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#### Books Received

**Clinical Capillary Microscopy.** By ELI DAVIS AND JACOB LANDAU. Pp. 231, with illustrations. Cloth Price: \$25.75. Charles C Thomas, Springfield, Ill., 1966.

This volume, which contains magnificent photographs of the effect of sympathetic denervation by operation or block for reflex sympathetic dystrophies, would be of particular interest for those not familiar with capillary microscopy in medical disease.

**An Introduction to Anaesthetics.** By JOHN D. LAYCOCK AND C. A. FOSTER. Pp. 134, with illustrations. Paperback. Price: 15/-. Lloyd-Luke (Medical Books) Ltd., London, England, 1966.

This small booklet designed for the British medical student is not of particular use in the United States. It is too brief.

**Practical Anaesthesia for Lung Surgery.** By RUTH E. MANSFIELD AND RICHARD JENKINS. Pp. 193, with illustrations and tables. Cloth. \$10.25. The Williams and Wilkins Co., Baltimore, Md., 1967.

This book represents the results of the experiences of Doctors Mansfield and Jenkins at the Brompton Hospital. It details in a simple, straightforward way the management of the patient in lung operations. The section on physiology is brief but pertinent. This is in no way an exhaustive treatment of the subject, but will serve well as an introduction to the management of these patients.

**Tracheostomy and Artificial Ventilation.** EDITED BY STANLEY A. FELDMAN. Pp. 102, with illustrations. Cloth. \$7.00. The Williams and Wilkins Co., Baltimore, Md., 1967.

**Mechanical Artificial Ventilation.** By TERRUNC W. HEIRONIMUS III. Pp. 102, with illustrations and tables. Cloth. \$5.75. Charles C Thomas, Springfield, Ill., 1967.

**Ventilators and Inhalation Therapy (International Anesthesiology Clinics).** EDITED BY ALLEN B. DOBKIN. Pp. 258, with illustrations and tables. Cloth. \$5.50. Little, Brown & Co., Boston, Mass., 1966.

These three small volumes complement each other in the presentation of the problems associated with artificial ventilation. The volume by Dobkin contains, in addition, excellent sections on inhalation therapy, and deals less with artificial ventilation. The section by Crogono on mechanical ventilators is particularly useful for the clear presentation of principles.

The entire text by Heironimus is a model for straightforward presentation, with many practical hints on management. It is sufficiently detailed to be useful and is highly recommended, particularly for those who are becoming involved in this aspect of therapy for the first time.

**Tracheostomy and Artificial Ventilation** by Feldman has more relevance for the British practitioner. It contains descriptions of apparatus not generally known in this country. Basically, it represents an extension of the experiences of Feldman and his associates at Westminster Hospital. The section on complications is especially descriptive.

**Pathological Physiology for the Anesthesiologist.** By ROBERT HUDSON SMITH. Pp. 580, with illustrations and tables. Cloth. \$17.00. Charles C Thomas, Springfield, Ill., 1966.

A simple, straightforward presentation of a wide variety of conditions which may affect the administration of anesthetics. Practically oriented, it is especially useful for students and residents.

**Principles on Tetanus.** Proceedings of the International Conference on Tetanus, Bern, July 15-19, 1966. EDITED BY LEO ECKMANN. Pp. 577, with illustrations and tables. Cloth. Hans Huber Publishers, Bern & Stuttgart, 1967.

For those interested in tetanus, this is a storehouse of information on all aspects of its occurrence, bacteriology, pathogenesis, immunology and prophylaxis. Of special interest is the section on therapy.

**Hyperbaric Medicine.** Proceedings of the 3rd International Conference. EDITED BY IVAN W. BROWN, JR., AND BARBARA G. COX. Pp. 795, with illustrations and tables. Cloth. \$15.00. National Academy of Sciences, National Research Council, Washington, D. C., 1966.

This book covers the basic considerations and applications of hyperbaric oxygen, extensive work at basic scientific levels, as well as clinical experience. It is authoritatively presented. Recommended.

**Physiological Pharmacology—A Comprehensive Treatise.** Vol. III, *The Nervous System, Part C.* EDITED BY WALTER S. ROOT AND FREDERICK G. HOFMANN. Pp. 519, with illustrations and tables. Cloth. \$21.00. Academic Press, Inc., New York & London, 1967.

**Physiological Pharmacology—A Comprehensive Treatise.** Vol. IV, *The Nervous System, Part D.* (Same author and publisher as above.) Pp. 535, with illustrations and tables. Cloth. \$23.00.

These two volumes complete the section on the nervous system in this series. Both are devoted to the autonomic nervous system and give exhaustive treatment of drugs and the physiologic changes associated with these. Bibliographies are comprehensive.

**Wright's Veterinary Anaesthesia & Analgesia** Sixth Edition. BY L. W. HALL. Pp. 480, with illustrations and tables. Cloth. \$11.00. The Williams and Wilkins Co., Baltimore, Md., 1966.

While this revision is devised for the veterinarian who wishes to specialize in anesthesia, the basic application of anesthetics for animals will be a ready reference for laboratory workers, including anesthesiologists.

**The Human Heart: The Layman's Guide to Heart Disease.** BY BRENDAN PHIBBS. Pp. 253, with illustrations and tables. Cloth. \$4.95. The C. V. Mosby Co., St. Louis, 1967.

A simple presentation designed to help the physician instruct his cardiac patient in the pathology, etc., of his disease.

**Clinical Pathology of the Serum Electrolytes.** BY F. WILLIAM SUNDERMAN AND F. WILLIAM SUNDERMAN, JR. Pp. 446, with illustrations and tables. Cloth. \$24.50. Charles C Thomas, Springfield, Ill., 1966.

General reference work.

### Surgery

**CIRRHOSIS** Hepatic cirrhosis may produce significant alterations in pulmonary and cardiovascular function. Hyperventilation with resultant respiratory alkalosis is a common finding, as is arterial oxygen desaturation. The degree of the former roughly parallels the severity of the liver disease, whereas the degree of the latter does not correlate well with the severity of the cirrhosis. Pulmonary function studies show an increase in physiologic deadspace despite an increase in minute volume. Alveolar-arterial oxygen tension differences indicate significant shunting. Other blood studies show a low plasma bicarbonate, increased pH, and a slight decrease in base excess. The mechanism of the hyperventilation is not clear. It probably is related to increased blood levels of ammonia and various amines, although there is poor correlation between the blood ammonia level and the degree of hyperventilation. The decrease in buffer base may sensitize the chemoreceptors to hydrogen ions, thereby increasing the respiratory drive. The decrease in arterial oxygen saturation is partially due to some shunting of blood directly to the pulmonary veins from periesophageal and mediastinal veins as a consequence of the portal hypertension. Pulmonary arteriovenous shunting probably is an even more important factor. Peripheral vasodilation and increased peripheral blood flow commonly occur in cirrhosis and tend to cause an increase in cardiac output. Total blood volume is increased, largely due to increased plasma volume. A sustained increase in blood volume and cardiac output may lead to cardiac hypertrophy. Degenerative changes in the heart muscle also occur. (*Bashour, F. A., and others: Circulatory and Respiratory Changes in Patients with Laennec's Cirrhosis of the Liver, Amer. Heart J. 74: 569 (Oct.) 1967.*)

**ABSTRACTOR'S COMMENT:** The pulmonary and circulatory dysfunctions described above are in addition to the more well-known problems of the cirrhotic (*i.e.*, ascites, hypoproteinemia, coagulation problems, poor salt tolerance, poor drug detoxification, etc.), making him an even poorer anesthetic risk than previously thought.