

great are these things that an alphabetical Finding Index is a necessary key for unlocking the door to the great wealth of the vast and complicated Subject Index. Such an index, now in preparation, is to be published as Part 4. When this has been accomplished and the treasures of this great work made easily available, it will be seen that this is surely the Bibliography of Birds, the most valuable tool ever forged for students of ornithology and an imperishable monument to the labors of the author."

Now the final part is before us, and all that need be said is that it fully lives up to Gudger's wish, and that it does make the contents of this whole work readily available. It is a pity that so long an interval separated its appearance from that of the earlier parts. This is no fault of the book or of its author, and it seems better to be glad that the work has been completed than to complain about its delay.

The advances made in all branches of avian biology since the first two parts, the Author Index, were published (1939) have been so great that this index must, of necessity, be used only for what it is—an index of the literature up to 1939. No one should assume from its publication date (1959) that it attempts to cover more recent material.

All students of avian biology will have reason to be grateful to Strong for a most useful work, a work of a sort that demands prolonged and self-sacrificing labors on the part of the compiler, for which he seldom, if ever, is thanked by the people he helps.

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Anatomy of the Human Body. Henry Gray. Twenty-seventh edition edited by Charles Mayo Goss, Lea and Febiger, Philadelphia, Pa., ed. 27, 1959. 1458 pp. Illus. \$17.50.

The only major changes noted in the new edition are in the chapters on the central nervous system and the cardiovascular system. The former chapter has been completely rewritten in a simpler form and shortened by 50 pages. The structural features of the nervous system are emphasized, but the functional aspects are implied. Although the spinal cord is listed as a separate subdivision in the text, there is no corresponding subdivision or introductory

paragraph on the brain as a whole.

The chapter on the cardiovascular system has been divided into separate sections on the heart, arteries, and veins. Each section includes a discussion of embryological development. The section on the heart contains an account of the development of the heart, the peculiarities of the fetal vascular system, the external appearance and shape of the heart and pericardium, and a detailed description of the gross anatomy of the heart. There are 26 new illustrations of the embryology and gross anatomy of the adult heart, six new ones of the arteries, and two of the histology of blood vessels. Statistical data on variations in the arteries of the upper abdomen are included.

In the chapter on osteology there are three new illustrations of developing bone. There are also a few new illustrations in the chapters on myology, the nervous system, the skin, and the digestive system. The majority of the new illustrations are from Rauber-Kopsch, *Lehrbuch und Atlas der Anatomie des Menschen*, and several are in color. A discussion of the histology of all the connective tissues has been added to that on bone, while the histology of blood vessels is included in the section on the veins.

The old terminology, rather than the "Nomina Anatomica," officially adopted at Paris in 1955, is still used in many places.

Except for the changes noted above, this edition, published to celebrate the centennial of the first American edition of Gray's *Anatomy*, is not very different from the preceding one. The changes that have been made are improvements over the 26th edition but, unfortunately, these changes are not as extensive as the publisher's notices of the book lead one to expect. However, the editor should not be too strongly criticized for this, since it is well known that publishers are often unwilling to make the revisions in a new edition as extensive as the editor would like.

The book is well bound and printed on high-quality paper, with good clear type and illustrations. The uncomplicated style with relatively short sentences, characteristic of earlier editions, has been retained. These features should ensure Gray's *Anatomy* continued success and popularity with medical and other students.

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New Books

Albert Jan Kluyver. His life and work. Biographical memoranda, selected papers, bibliography, and addenda. North-Holland, Amsterdam; Interscience, New York, 1959. 582 pp.

Astrophysique Générale. J. C. Pecker and E. Schatzman. Masson, Paris, 1959. 766 pp. Paper, F. 12,000; cloth F. 13,000.

Australian Atomic Energy Symposium, 1958. Published for the Australian Atomic Energy Commission by Melbourne Univ. Press; Cambridge Univ. Press, New York, 1959. 799 pp. \$17.50. This volume is the report of the symposium on the peaceful uses of atomic energy held by the Australian Atomic Energy Commission in Sydney from 2-6 June 1958. The papers cover a wide range of interest related to raw materials, nuclear power, nuclear research, the basic sciences, education, and the industrial and medical uses of isotopes. Contributions to the discussion are included in the volume. The symposium was attended by 435 people; this included 38 participants from overseas.

Fermente. Hormone, vitamine. vol. 1, *Fermente.* R. Ammon and K. Myrbäck. Thieme, Stuttgart, Germany, 1959 (order from Intercontinental Medical Book Corp., New York 16). 584 pp. \$22.85.

Photoperiodism and Related Phenomena in Plants and Animals. A symposium. Publ. No. 55. Robert B. Withrow, Ed. American Assoc. for the Advancement of Science, Washington 5, 1959. 920 pp. Prepaid to members, \$12.50; others, \$14.75.

Planetaria and Their Use for Education. Cranbrook Inst. of Science, Bloomfield Hills, Mich., 1959. 205 pp.

Plant Physiology. A treatise. vol. 2. *Plants in Relation to Water and Solutes.* Academic Press, New York, 1959. 775 pp. \$22.

A Short History of Scientific Ideas to 1900. Charles Singer. Oxford Univ. Press, New York, 1959. 545 pp. \$8.

Standard Handbook for Telescope Making. N. E. Howard. Crowell, New York, 1959. 336 pp. \$5.95.

Sugar Cane and Its Diseases. Claude W. Edgerton. Louisiana State Univ. Press, Baton Rouge, ed. 2, 1959. 311 pp. \$7.50.

World Weather Records, 1941-50. Weather Bureau, U.S. Dept. of Commerce, Washington, D.C., 1959 (order from Supt. of Documents, GPO, Washington 25). 1361 pp. \$4.75. This volume is a continuation of three earlier volumes published in the *Smithsonian Miscellaneous Collections* and records the monthly mean station pressure, mean temperature, total precipitation, and mean sea level pressure for all stations listed in the previous volumes, as well as long homogeneous records for some stations not listed in the earlier volumes. Most of the data were supplied by national meteorological services. The stations are arranged under 12 major divisions—such as Africa, North Atlantic—and by countries or political divisions (in alphabetical order) within the major divisions. The data are arranged by stations alphabetically within countries. Lake, river, and ice data are grouped in separate sections following the meteorological data.