

regions of thermal stability and instability are presented.

Since the first edition was published, a large number of thermobalances have been described in the literature, and ten of these are available commercially. Two chapters are devoted to a description of the construction and performance characteristics of several of these instruments. There is also a chapter on the precautions necessary in using the thermobalance and in interpreting the data obtained.

This new edition is a useful source of information on the thermal behavior of a wide variety of inorganic compounds.

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## Recent Research

**Fortschritte der Zoologie.** vol. 15, part 3 (96 pp., 1962), and vol. 16, part 1 (186 pp., 1963). H. Bauer, Ed. Fischer, Stuttgart, Germany.

The first summary article in part 3 of volume 15 is by F. J. Gouin, and it deals with the anatomy, morphology, and developmental aspects of the abdomen of insects, with special emphasis upon the genital organs. For the various pregenital and genital parts, the author uses mainly the nomenclature of Snodgrass, which is based more on anatomical and developmental aspects than on function, while the taxonomists still use a nomenclature according to function. The second paper (by I. Eibl-Erbsfeldt and W. Wickler) summarizes the newer work concerned with the ontogenesis and organization of behavior; this paper is based mainly on publications from the laboratories of Beach, von Frisch, Gray, Hess, Lorenz, and von Holst. The last paper (by A. Egelhaaf) is a very worthwhile attempt to summarize our present knowledge of biochemical gene effects, mainly the gene physiology of the pigmentation of vertebrates and of arthropods, the genetic control of metabolic aberrations, of enzymes, and of the various blood proteins, and also the genetics of complex loci and pseudoallelism.

Part 1 of volume 16 begins with a paper in which Hanke and Giersberg summarize the more recent work on the various hormones of vertebrates and invertebrates. There are special

chapters which treat hormone effects during the migration of fishes, hormonal mechanisms in the reproduction of lower vertebrates, and hormonal effects upon periodicity in the behavior of birds. M. Lindauer provides an extensive report on the papers concerned with the general sensory mechanisms that are involved in the orientation in space by animals: namely, the optical sense, the chemical sense, and finally, the mechanical senses (orientation by acoustic stimuli, gravity, water and air currents, kinesthetic sensation, and electromagnetic fields). The last article (by W. Wieser) deals with the dynamics of marine population, the production biology of the ocean as a whole, and the structure of mixed communities of different marine organisms.

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## New Books

### General

**Admission Requirements of American Medical Colleges, Including Canada, 1963-64.** Compiled by E. Shepley Nourse. Assoc. of American Medical Colleges, Evanston, Ill., 1963. 264 pp. Paper, \$3.

**Aid for Federally Affected Public Schools.** I. M. Labovitz. Syracuse Univ. Press, Syracuse, N.Y., 1963. 217 pp. Paper, \$1.75.

**Aspens.** Phoenix trees of the Great Lakes region. Samuel A. Graham, Robert P. Harrison, Jr., and Casey E. Westell, Jr., Eds. Univ. of Michigan Press, Ann Arbor, 1963. 286 pp. Illus. \$7.50.

**Bibliography and Index of Geology Exclusive of North America.** vol. 26. Marie Siegrist, Mary C. Grier, and others. Geological Soc. of America, New York, 1963. 815 pp.

**The Big Dish.** The fascinating story of radio telescopes. Roger Piper. Harcourt, Brace, and World, New York, 1963. 159 pp. Illus. \$3.25.

**A Book of Mathematical and Reasoning Problems.** Fifty brain twisters. D. St. P. Barnard. Van Nostrand, Princeton, N.J., 1962. 109 pp. Illus. \$2.50.

**Careers in the Biological Sciences.** William W. Fox. Walck, New York, 1963. 114 pp. Illus. \$3.50.

**The Chambered Tombs of Scotland.** vol. 1. Audrey Shore Henshall. Univ. of Edinburgh Press, Edinburgh, Scotland; Aldine, Chicago, 1963. 470 pp. Illus. \$20.

**A Comprehensive Bibliography on Operations Research, 1957-1958.** David B. Hertz, Ed. Wiley, New York, 1963. 417 pp. \$8.75.

**Congressional Districting.** The issue of equal representation. Andrew Hacker. Brookings Institution, Washington, D.C., 1963. 143 pp. Cloth, \$3.50; paper, \$1.95.

**Conservationists and What They Do.** C. William Harrison. Watts, New York, 1963. 175 pp. \$3.95 (juvenile book).

**Correspondence between Spencer Fullerton Baird and Louis Agassiz—Two Pioneer American Naturalists.** Publ. No. 4515. Elmer Charles Herber, Ed. Smithsonian Institution, Washington, D.C., 1963. 237 pp. Plates.

**Dairy Engineering Conference.** Held at East Lansing, Mich., February 1963. G. Robert Johnson *et al.* Michigan State Univ., East Lansing, 1963 (order from Continuing Education Service, Kellogg Center, Michigan State University). 125 pp. Illus. Paper, \$2.

**The Development of Scientific Method.** W. S. Fowler, Pergamon, London, 1962; Macmillan, New York, 1963. 130 pp. Illus. Paper, \$1.45.

**The Dictionary of Chemical Names.** W. E. Flood. Philosophical Library, New York, 1963. 270 pp. Illus. \$7.50.

**Dictionary of Modern Acronyms and Abbreviations.** Milton Goldstein. Sams (Bobbs-Merrill), Indianapolis, 1963. 158 pp. \$4.95.

**Educators Guide to Free Films.** Mary Foley Horkheimer and John W. Diffor, Eds. Educators Progress Service, Randolph, Wis., ed. 23, 1963. 671 pp. Paper, \$9.

**Educators Guide to Free Tapes, Scripts, and Transcription.** Walter A. Wittich and Gertie Hanson Halsted, Eds. Educators Progress Service, Randolph, Wis., ed. 10, 1963. 177 pp. Paper.

**Emerging Techniques in Population Research.** Proceedings of a conference held in September 1962. Arthur A. Campbell *et al.* Milbank Memorial Fund, New York, 1963. 307 pp. Illus. Paper, \$2.

**Enrichment Mathematics for High School.** 28th yearbook. National Council of Teachers of Mathematics, Washington, D.C., 1963. 398 pp. Illus. Paper, \$1.50; cloth, \$3.

**Exploring the Secrets of Space.** Astro-nautics for the layman. I. M. Levitt and Dandridge M. Cole. Prentice-Hall, Englewood Cliffs, N.J., 1963. 320 pp. Illus. \$5.95.

**Fifty Mathematical Puzzles and Oddities.** Nicholas E. Scripture. Van Nostrand, Princeton, N.J., 1962. 83 pp. Illus. \$2.50.

**Problems of World Disarmament.** A series of lectures delivered at the Johns Hopkins University. Charles A. Barker, Ed., Houghton Mifflin, Boston, 1963. 182 pp. Paper, \$1.75; cloth, \$2.50.

**Professional Careers in Science and Technology.** Morton Sherman. Scarecrow Press, New York, 1963. 463 pp. \$10.

**Science in Progress.** vol. 13. Wallace R. Brode, Ed. Yale Univ. Press, New Haven, Conn., 1963. 319 pp. Illus. \$7.50.

**The Story of Blood.** Kenneth Walker. Philosophical Library, New York (© 1958), 1962. 213 pp. Illus. \$6.

**Technically Speaking.** Oral communication for engineers, scientists, and technical personnel. Harold Weiss and J. B. McGrath, Jr. McGraw-Hill, New York, 1963. 266 pp. Illus. \$7.95; text, \$5.95.

**Under the Mediterranean.** Marine antiquities. Honor Frost. Prentice-Hall, Englewood Cliffs, N.J., 1963. 296 pp. Illus. \$6.95.