

Books of the Week

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ADAPTATION TO THE ENVIRONMENT: Handbook of Physiology, Section 4—D. B. Dill, E. F. Adolph and C. G. Wilber, Eds.—Am. Physiological Soc. (Williams & Wilkins), 1,056 p., illus., \$32. Provides a comprehensive survey of the experimental findings and the concepts that deal with functional entities throughout the whole range of animal organisms in all environments in which animals exist, including man in space.

ADVANCED BEARING TECHNOLOGY—Edmond E. Bisson and William J. Anderson—NASA (GPO), 511 p., diagrams, paper, \$1.75. Presents the fundamentals of friction and wear, fluid film bearings and rolling-element bearings, and demonstrates their application in solving unique bearing problems such as extreme temperature, radiation, high vacuum and corrosive fluids.

ALESSANDRO VOLTA AND THE ELECTRIC BATTERY—Bern Dibner—Watts, F., 185 p., illus., \$2.95. Juvenile biography, highlighting experiments and discoveries, includes chronology, translation of original paper and index.

APPOINTMENT IN THE SKY: The Story of Project Gemini—Sol Levine, foreword by Lyndon B. Johnson—Walker & Co., 214 p., photographs, \$5. A descriptive and interpretative story of Project Gemini, the complex intermediate rendezvous-in-orbit space venture before a moon landing can be attempted.

THE ARCHITECTURE OF THE GERMLASM—Verne Grant—Wiley, 236 p., illus., \$9.75. Discussing the organization of the diploid genotype as found particularly in higher plants, the author combines both atomistic and holistic approach of treatment.

BIOCHEMISTRY OF THE ALLIGATOR: A Study of Metabolism in Slow Motion—Roland A. Coulson and Thomas Hernandez—La. State Univ. Press, 138 p., charts, \$10. Extensive data derived from 15 years of experiments with these cold-blooded research animals show clearly the differences between results of in vivo experiments and results gained from mitochondrial and tissue-slice experiments.

CAREER TRAINING IN CHILD PSYCHIATRY—Othilda Krug, Ed.—Am. Psychiatric Assn., 260 p.,

\$3. Report of the first conference (1963), devoted to a comprehensive consideration of the need, the content and the methodology of training in child psychiatry.

EXPERIMENTAL BIOCHEMISTRY—John M. Clark Jr., Ed.—Freeman, 228 p., diagrams, paper, \$4.75. This laboratory manual stresses experimental competence with biological systems and their components at a quantitative level.

FARADAY, MAXWELL AND KELVIN—D. K. C. MacDonald—Doubleday, 143 p., 45 plates, paper, \$1.25. Three essays dealing with the background, personalities and contributions to science of three outstanding 19th century scientists.

A FIELD GUIDE TO THE BIRDS OF EAST AND CENTRAL AFRICA—J. G. Williams, introd. by Roger Tory Peterson—Houghton, 288 p., 40 plates by author and Mrs. R. Fennessy, \$6.75. Describes 459 species found in the area from Southern Rhodesia to the Red Sea, includes 179 illustrations in color.

GREEN IS FOR GROWING—Winifred and Cecil Lubell—Rand McNally, 64 p., illus. by W. Lubell, \$2.95. Takes the young child among growing things.

THE HISTORY OF THE BAROMETER—W. E. Knowles Middleton—Johns Hopkins Press, 489 p., illus., \$10.95. A complete and annotated history of the scientific instrument that measures atmospheric pressures, from early experiments through 17th and 18th century developments to the barometers of high accuracy in use today.

THE HOW AND WHY WONDER BOOK OF BUILDING—Donald Barr—Grosset, 48 p., illus. by Robert Doremus, \$1. An informative engineering picture book, tells boys and girls about the principles of constructing walls, buildings and bridges.

HUMAN FERTILITY AND POPULATION PROBLEMS—Roy O. Greep, Ed.—Schenkman Pub. Co., 278 p., \$7.45; paper, \$2.65. Proceedings of the 1963 Seminar sponsored by the American Academy of Arts and Sciences with the support of the Ford Foundation, ranging from discussion of the cybernetics of population control to advanced methods of fertility control.

AN INTRODUCTION TO BODY FLUID METABOLISM—A. V. Wolf and Norman A. Crowder—Williams & Wilkins, 263 p., paper, \$4.95. Originally designed to explore the utility of programmed instruction in medical education. In this form, the concepts of body fluid metabolism are made available for self-tutoring to a wider public.

AN INTRODUCTION TO TROPICAL GRASSLAND HUSBANDRY—R. J. McIlroy—Oxford Univ. Press, 128 p., \$2.60. Deals with the basic principles of pasture-grazing animal environment in tropical regions and developments in grassland farming in the tropics.



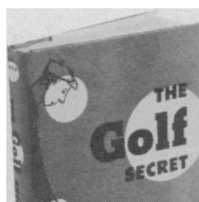
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JUNIOR SCIENCE BOOK OF BACTERIA—Gerald S. Lietz—Garrard, 68 p., illus. by Stephen Peck, \$2.50. A physician explains the importance of microorganisms to children of grade school age.

JUNIOR SCIENCE BOOK OF HEAT—Rocco V. Feravolo—Garrard, 64 p., illus. by Ernest Kurt Barth, \$2.50. Explains to young readers elementary facts about heat.

MAPPING—David Greenwood, rev. with Gerard L. Alexander—Univ. of Chicago Press, 289 p., illus. by Ralph Graeter, \$6. A readable sourcebook for beginning cartographers and amateur map-makers, abundantly illustrated.

MATHEMATICAL PUZZLES FOR THE CONNOISSEUR—P. M. H. Kendall and G. M. Thomas—Crowell, 161 p., illus., \$3.95. Brain-teasers in the field of weights and dates, areas and shapes, numbers and chance, cards and games, chess and probability.

THE MILITARY IN THE POLITICAL DEVELOPMENT OF NEW NATIONS: An Essay in Comparative Analysis—Morris Janowitz—Univ. of Chicago Press, 134 p., \$4.50. This comparative study deals with the potential and limitations of the military profession for political leadership.

NATIONAL INVENTORY OF SCHOOL FACILITIES AND PERSONNEL, Spring 1962—George J. Collins—OE (GPO), 134 p., paper, \$1. Deals with nearly 107,000 U.S. elementary and secondary school plants, 93,000 public and 14,000 nonpublic.

NATURAL RESOURCES AND INTERNATIONAL DEVELOPMENT—Marion Clawson, Ed.—Johns Hopkins Press, 462 p., \$7.50. Presents the results of the 1963 Resources for the Future Forum dealing with three commodities of international importance: agriculture, oil and fisheries; resource problems in Europe, Africa and Latin America; and the potentialities and hazards of international investment in raw materials.

1963 RESEARCH HIGHLIGHTS OF THE NATIONAL BUREAU OF STANDARDS: Annual Report, Fiscal Year 1963—A. V. Astin, Dir.—NBS (GPO), 246 p., photographs, paper, \$1. Gives a survey of the year's most important experiments, discoveries and technical services in the field of physical measurement.

1964 WORLD HOLIDAY CALENDAR—Alice L. Wood, Ed.—Friendly World, 32 p., paper, \$1 direct to publisher, GPO Box 1004, Brooklyn, N. Y. 11201. Lists national and traditional holidays of UN member nations.

NO NEED FOR HUNGER—Jonathan Garst—Random House, 182 p., \$3.95. Observations from underdeveloped areas of the world by a widely traveled American farmer who contends that it will take the combined efforts of scientist, industrialist, salesman and farmer to increase the food potential of these areas.

SHORT HISTORY OF BIOLOGY—Isaac Asimov—Natural Hist. Press, 183 p., diagrams, paper, \$1.25. Published for the American Museum of Natural History.

SOVIET MASER RESEARCH—D. V. Skobel'syn, Ed., transl. from Russian—Consultants, 186 p., illus., paper, \$27.50. Contains a theoretical study of the frequency stability of a maser, characteristics of masers, theory of the hyperfine structure of the rotational spectra of molecules, and discussion of the ND₃ maser.

THE STORY OF MAN—Daniel Jacobson—Home Lib. Press, 56 p., illus., photographs, \$2.95. A short introduction to anthropology, for boys and girls.

TRANSISTOR NETWORK CALCULATIONS—Harry E. Stockman—Sine-Ser Co., 125 p., duplicated, spiral-bound, \$2.75. Presents tested network problems on college level, with all problems completely solved in a practical engineering fashion.

TREASURES OF THE SHORE: A Beachcomber's Botany—Harriet Weed Hubbell, botanical facts by Marcia Gaylord Norman—Chatham Conservation Foundation, 135 p., illus. by M. G. Norman, \$3.15 direct to publisher, P. O. Box 317, Chatham, Mass. A book for young people about beach, dune and salt marsh vegetation.

TUBE SUBSTITUTION HANDBOOK—Howard W. Sams Engineering Staff—Sams, 7th ed., 128 p., paper, \$1.50. Contains more than 10,000 substitutions.

ULTRASOUND IN INDUSTRIAL PROCESSING AND CONTROL: Soviet Progress in Applied Ultrasonics, Vol. 1—V. F. Nozdreva, Ed., transl. from Russian—Consultants, 202 p., illus., paper, \$22.50. Collection of papers on the present state of ultrasonic processing and instrumentation in industry, and on the design of ultrasonic generators and vibrators for industrial application.

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