

Books of the Week

For the editorial information of our readers, books received for review are listed. For convenient purchase of any U. S. book in print, send a remittance to cover retail price (postage will be paid) to Book Department, Science Service, 1719 N Street, N.W., Washington 6, D. C.

THE ADAPTATIONS TO ARID ENVIRONMENTS IN WOOD RATS OF THE GENUS NEOTOMA—Anthony Kingston Lee—Univ. of Calif. Press, 40 p., diagrams, paper, \$1. Monograph investigates the relative importance of physiology and behavior in the survival of two species of wood rats in Southern California.

ANIMAL POPULATIONS—T. O. Browning—Harper, 127 p., \$2.50. Presents ecology not as natural history but as a quantitative and experimental branch of science.

ASCENT OF WOMAN—Elisabeth Mann Borgese—Braziller, 247 p., \$5. Finding evidence for her ideas on the development of Homo sapiens in biology, psychology, linguistics and in contemporary societies, the author presents her own utopia of "brave new world."

BACK OF HISTORY: The Story of Our Own Origins—William Howells—Doubleday, rev. ed., 384 p., illus. by Nancy Gahan, paper, \$1.45. Anthropologist's highly readable study of the relationship between culture and man, from the Stone Age to the beginnings of written history.

BASIC ELECTRICITY—Bureau of Naval Personnel—Dover, 448 p., illus., diagrams, paper, \$2.65. Unabridged reprint (1960) of Navy training course.

CHALLENGE TO AMERICAN YOUTH—Philip Angeles, Ed.—Macrae Smith Co., 223 p., \$3.95. Collection of speeches by outstanding men in diverse fields, ranging from Fred L. Whipple, astronomer, to Grayson Kirk, president of Columbia University.

CHILDREN'S BOOKS for \$1.25 or less—Helen Oeschger—Assn. for Childhood Educ., 40 p., paper, 75¢. Features section of inexpensive "science" books.

CONTROL MECHANISMS IN RESPIRATION AND FERMENTATION—Barbara Wright, Ed.—Ronald, 357 p., \$10. Symposium papers defining and clarifying basic mechanisms which control and interrelate aerobic and anaerobic metabolism.

CURRENT PROJECTS ON ECONOMIC AND SOCIAL IMPLICATIONS OF SCIENCE AND TECHNOLOGY, 1962—National Science Foundation—GPO, 126 p., paper, 40¢. Fourth annual inventory of research projects in U.S. colleges and universities.

DEVELOPMENTS IN AGING, 1959 to 1963—Special Committee on Aging, U.S. Senate; Pat McNamara, Chmn.—GPO, 224 p., paper, 60¢. Committee report on recent developments in health, employment, housing and nursing homes for the aged, with minority views.

DIODE CIRCUITS HANDBOOK—Rufus P. Turner—Sams, 128 p., illus., paper, \$2.50. Concise discussion of diode circuits with diagrams and explanation of their operation.

THE DYNAMIC NATURAL GAS INDUSTRY: The Description of an American Industry from the Historical, Technical, Legal, Financial and Economic Standpoints—Alfred M. Leeston, John A. Crichton and John C. Jacobs—Univ. of Okla. Press, 464 p., illus., \$9.95. Portrayal of the spectacular growth of an industry.

EARTH, SEA AND AIR: A Survey of the Geophysical Sciences—Jerome Spar—Addison-Wesley, 152 p., diagrams, \$2.95; paper, \$1.75. One-semester course in geophysics.

THE EARTH IS YOUR SPACESHIP—Julius Schwartz—Whittlesey House, 32 p., illus. by Marc Simont, \$2.50. Helps children visualize the earth moving through space.

8mm SOUND FILM AND EDUCATION: Proceedings of a Conference held at Teachers College, Nov. 1961—Louis Forsdale, Ed.—Teachers College, 166 p., paper, \$2.50. Ranges from technical papers on laboratory practices to speculative papers exploring educational uses.

ELECTRONIC TESTS AND MEASUREMENTS—Robert G. Middleton—Sams, 288 p., illus., \$6.95. Combines theory and practice in electronic testing with explicit instructions in measuring techniques.

THE EPIC OF STEEL—Douglas Alan Fisher—Harper, 344 p., illus., \$6.75. A comprehensive historical survey of the steel industry in the United States.

EXPLORATION OF AFRICA—Thomas Sterling with George H. T. Kimble—Am. Heritage (Meredith Press), 153 p., illus., \$3.95. Handsomely illustrated volume describing the colorful 19th century exploration of Africa.

FAIR GODS AND STONE FACES—Constance Irwin—St. Martins, 346 p., 100 illus., \$7.50. Amateur archaeologist examines the evidence of possible pre-Columbian transatlantic contact between the Old World and the New.

GREG'S MICROSCOPE—Millicent E. Selsam—Harper, 64 p., illus. by Arnold Lobel, \$1.95. Charmingly illustrated, for the beginning reader.

THE GROWTH OF WORLD POPULATION: Analysis of the Problems and Recommendations for Research and Training—Committee on Science and Public Policy—National Academy of Sciences, 38 p., paper, \$1 direct to publisher, 2101 Constitution Ave., N.W., Washington 25, D. C. For story see SNL, 83:258, April 27, 1963.

A GUIDE TO BIRD WATCHING—Joseph J. Hickey—Doubleday, 295 p., paper, \$1.25. Reprint (1943), covers the fundamentals, how to learn bird names and songs, how, where and when to look for birds, and how to keep records, for layman and professional.

GUIDE TO THE APPLICATIONS OF LAPLACE TRANSFORMS—Gustav Doetsch, transl. from German—Van Nostrand, 255 p., \$9.75. Furnishes the information needed by electrical and mechanical engineers, all necessary theorems and conditions are stated in rigorous form but mostly without proofs, includes Table of Laplace Transforms by Rudolf Herschel.

Miracle in Mathematics

Now comes a new and completely different kind of self-teaching math "course"—one that yields truly amazing results! "The author assumes no previous acquaintance with mathematics . . . He advances the reader to some mathematical notions of 'college' level . . . The near-miracle is accomplished by patient, carefully-phrased exposition and by building the discussion step-by-step . . . The book is intended for study without the aid of a teacher."—*New Technical Books* (of the New York Public Library).

If you have despaired of ever "licking" mathematics, if lack of mathematical knowledge is holding you back, if you have tried other methods and found they simply did nothing for you, then perhaps you would wish to try the remarkable Colerus method. It is guaranteed to satisfy your expectations, or full purchase price refunded. Not a tutored math course that stands you anywhere from \$150 to 300, but a self-instruction manual that costs a mere \$3.95—if you decide to keep it.

MATHEMATICS FOR EVERYMAN
by Egmont Colerus
\$3.95 Postfree • 10-Day Money-Back Guarantee
EMERSON BOOKS, Inc., Dept. 720-M
251 West 19 Street, New York 11

THE HANDBOOK OF ROCKETS AND GUIDED MISSILES—Norman J. Bowmann—Perastidion Press, 2nd ed., 1008 p., illus., \$10.95. Comprehensive tabulation on all phases of rockets, missiles, satellites and space probes, from the Al Hermes motor to the Zuni rocket.

HEAT AND ITS WORKINGS—Morton Mott-Smith—Dover, 165 p., diagrams, paper, \$1. Reprint (1933), elementary introduction to the theory of heat, its attributes and related aspects of physics.

THE INDISPENSABLE MAN—David Sarnoff and others, George E. Probst, Ed.—Edison Foundation (Shorewood Publishers), 127 p., 130 photographs, \$2.95. The story of Thomas Alva Edison's life and inventive genius.

AN INTRODUCTION TO WAVES, RAYS AND RADIATION IN PLASMA MEDIA—J. J. Brandstatter—McGraw, 690 p., \$15. Presents a unified treatment of the various factors which affect the propagation of waves, rays and radiation in anisotropic plasma media, and analyzes both microscopic and macroscopic descriptions.

LOST CITIES—Leonard Cottrell—Grosset, 251 p., photographs, paper, \$1.95. Reprint (1957) of archaeologist's tale about such cities as Nimveh, Pompeii and Chichen-Itza.

MANAGERS AND SCIENTISTS: Some Human Problems in Industrial Research Organizations—Ralph M. Hower and Charles D. Orth 3rd—Harvard Univ. Grad. School of Bus. Admin., 323 p., \$5. Case studies focus on the administration of R & D organizations, in particular on the relationships between scientists and company managers.

NUTRIENT REQUIREMENTS OF DOMESTIC ANIMALS: Laboratory Animals—Committee on Animal Nutrition—Nat. Acad. of Sciences—Nat. Res. Council, 95 p., illus., paper, \$2.50. On the nutritional requirements of the cat, guinea pig, hamster, young monkey, laboratory mouse and rat.

THE PHYSICAL WORLD: A Course in Physical Science—Richard Brinckerhoff and others—Harcourt, 2nd ed., 498 p., illus., \$5.20. For 9th-grade students, with special section of additional experiments.

THE PHYSICS TEACHER, Vol. 1, No. 1, April 1963—J. W. Buchta, Ed.—Physics Teacher (NSTA), 48 p., illus., paper, \$1.25; 8 issues per school year, \$7.50; 5 issues April-Dec. '63, \$4. This issue contains articles on new standards of physical measurements, weight and weightlessness.

REVIEWS OF GEOPHYSICS including Papers on Planetary Sciences, Vol. 1, No. 1—Gordon J. F. MacDonald, Ed.—Am. Geophysical Union, 122 p., diagrams, paper, \$3 quarterly; \$8 annually. This issue summarizes known data on the earth's outer radiation belt, discusses carbon 14 production, revision of standard atmosphere, and motion of celestial bodies.

THE RIDDLE OF TIME—Thelma Harrington Bell and Coryndon Bell—Viking, 160 p., illus. by C. Bell, \$3.50. A stimulating account of the history of the calendar and the clock, biological and geological time, and the ideas of absolute and relative time.

SCARCITY AND GROWTH: The Economics of Natural Resource Availability—Harold J. Barnett and Chandler Morse—Johns Hopkins Press, 288 p., \$5.50. Re-examines the doctrine of diminishing returns in terms of the latest statistical information and modern analytical tools.

SCIENCE EXPERIENCES: Elementary School—Bertha Morris Parker—Row (Harper), 272 p., illus. by Lucy Ozone and Ora Walker, \$4.95. Simple classroom experiments fully explained.

THE SCIENTIFIC INTELLECTUAL: The Psychological & Sociological Origins of Modern Science—Lewis S. Feuer—Basic Bks., 441 p., \$10. Social scientist's inquiry into the evolution of scientific endeavor and the conditions that have encouraged rationality in men.

VACATIONS ABROAD: Courses, Study Tours, Work Camps, 1963—UNESCO (NY), 15th ed., 186 p., paper, \$1.75. Information on educational and cultural vacation activities at 1,050 institutions in 81 countries all over the world.

WORLD SPACE DIRECTORY, Vol. 1, No. 2, Spring 1963—Donald W. Dean, Ed.—Am. Aviation Publications, 480 p., paper, \$10. Lists U.S. and foreign missile/space companies, officials and government agencies, component manufacturers, U.S. industrial representatives abroad, colleges and professional associations.

• Science News Letter, 83:284 May 4, 1963

The Battery That's Used in Guided Missiles Now Released as Government Surplus


For Photography, Aircraft, Models, Searchlights, Radios, etc. \$1.95 ea. Postpaid



Sintered-plate Nickel-Cadmium alkaline storage batteries designed for "NIKE" Missile and now surplus due to design change. A lifetime battery with no known limit of service (over 5000 recharges on test without loss of capacity). Other features: Virtually indestructible, compact & lightweight, withstands heavy shock and vibration. Flat voltage curve during discharge retains charge year or more, high discharge rate up to 50 amps. for this cell, no corrosion fumes to harm clothing or equipment, spill-proof construction, discharge in any position, indefinite storage without deterioration, operates in temperatures — 60°F to +200°F. Each cell is approx. 4 ampere hour capacity. Nominal voltage per cell is 1.2 volts. (A 6 V. battery requires 5 cells.) Cell size 6" H. x 2" W. x 1/2" T. Wt. 6 oz. ea. Uses Potassium-Hydroxide (30%) electrolyte. Negligible loss during lifetime service. Add only distilled water once a year. A fraction of government cost. Used Test Cells... \$1.95 ea. Postpaid Brand New Cells... \$2.95 ea. Postpaid 30 A.H. Motor Starting Cells—Nickel-Cad. steel cased with 1/2" screw terminals for nom. current drains to 1000 amps. Size 8 1/2" H. x 3" W. x 1 3/16" T. Wt. approx. 3 1/2 lb. Need no filling. New cells... \$5.95 ea. (not shipped prepaid) Used cells... \$2.95 ea. (not shipped prepaid) All cells guaranteed to your satisfaction or money refunded (less postage).

ESSE RADIO COMPANY, Dept. SNL
42 W. South St. Indianapolis 25, Indiana

WHALE TEETH



Natural sperm whale ivory. Small (3") \$2.50; Medium (4") \$3.95; Large (5") \$6.50; Jumbo (6") \$8.95. POLISHED, double. Sperm Whale Oil, \$1.25 (2 for \$2). Marine Fossil Kit (inc. 10 shark teeth) \$3.50. Postpaid. Also Scrimshaw & Eskimo Crafts. Free brochure.

Remit to: **PETER B. DIRLAM**
49 LEBANON HILL SOUTHBRIDGE, MASS.