

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.

ABC'S OF LASERS AND MASERS—Allan Lytel—Sams, 95 p., illus., paper, \$1.95. Mainly concerned with explaining the basic techniques and types of devices and applications.

ABOUT INSECTS THAT HELP PLANTS—Gertrude Hevener Gibson—Melmont, 48 p., illus. by Frederick Harris, \$2.50. Instructs children about the ways of digging, hunting and pollen-carrying insects.

ADVANCES IN MORPHOGENESIS, Vol. 2—M. Abercrombie and Jean Brachet—Academic Press, 388 p., illus., \$12.50. Includes investigations of the morphogenesis in stentor, symmetrization of the egg of vertebrates, the proteins in embryonic and larval development, and early embryogenesis of insects.

THE COMING WORLD TRANSFORMATION—Ferdinand Lundberg—Doubleday, 395 p., \$5.75. Analyzes the possibility of a general theory of social prediction and forecasts probable trends in the development of human institutions during the next 150 years.

THE CUBEO: Indians of the Northwest Amazon—Irving Goldman—Univ. of Ill. Press, 305 p., photographs, paper, \$4. Anthropological study of the tribal life of the Cubeo Indians inhabiting the lowland South American tropical forest and savannah.

THE DAY THE NUMBERS DISAPPEARED—Leonard Simon and Jeanne Bendick—Whittlesey House, 48 p., illus. by J. Bendick, \$2.75. Dramatizes for children the advantages of the modern number system in arithmetic.

EDUCATING THE INTELLIGENT—Michael Hutchinson and Christopher Young—Penguin, 240 p., diagrams, paper, 95¢. Presents a British outlook on secondary education and suggestions for improving the education of the top forty percent.

ELECTROMAGNETIC THEORY—Erik Hallen, transl. from Swedish by Runar Gasstrom—Wiley, 621 p., diagrams, \$20. Develops theory at the graduate level, investigating electric and magnetic vectors, dielectrics and magnetic media, and presents the theory of (phenomenal) magnetism in the author's original way.

ELECTRONICS MATH SIMPLIFIED, Vol. 2—Alan Andrews—Sams, 207 p., illus., paper, \$4.95. Contains more advanced material, including Boolean algebra, mechanics, and circuit and component data calculations.

ELEMENTARY QUANTUM MECHANICS—R. W. Gurney—Univ. of Neb. Press, 160 p., diagrams, paper, \$1.25. Reprint (1934). Explains the problems of quantum mechanics by graphical methods.

ENVIRONMENTAL RADIOACTIVITY—Merrill Eisenbud—McGraw, 430 p., illus., \$12.50. Text presents in systematic manner the pertinent information that has developed in the past 20 years on the behavior of radioactive substances in the environment.

FLOWERING TREES—Robert B. Clark—Van Nostrand, 241 p., illus. by Darrell Sweet, \$6.50. A practical book with detailed information for the home gardener written by tree expert.

FOOD PROCESSING OPERATIONS: Their Management, Machines, Materials and Methods, Vol. 1—Maynard A. Joslyn and J. L. Heid with others—Avi Pub. Co., 644 p., illus., \$19.75. Summarizes basic information on factors involved in successful food processing operations, from the source of raw materials to the sales outlet.

THE GROWTH OF PLANTS—G. E. Fogg—Penguin, 288 p., 24 plates, diagrams, \$1.65. Gives a general account of present-day plant physiology for the reader with only limited background in chemistry.

HIGH SPEED FLEXIBLE COUPLINGS—Edgar E. Ambrosius, Chmn.—Pa. State Univ., College of Engineering, 207 p., illus., paper, \$5. Papers presented at 1962 Engineering Seminar, include specific areas of coupling design, development, types, lubrication and use.

HIGHER EDUCATION IN ENGINEERING AND SCIENCE—Herman A. Estrin, Ed., foreword by Robert W. Van Houten—McGraw, 548 p., \$7.95. Gives the current thinking of experts on improved techniques and approaches to the teaching of mathematics, science and engineering.

A HISTORY OF SCIENCE AND TECHNOLOGY, Vol. 1: Ancient Times to the Seventeenth Century. Vol. 2: The Eighteenth and Nineteenth Centuries—R. J. Forbes and E. J. Dijksterhuis—Penguin, 536 p., 16 plates, paper, \$2.50; \$1.25 each. Broadly outlines the historical development of science and technology along separate paths up to the beginning of their close collaboration.

HOW ANIMALS LIVE TOGETHER—Millicent E. Selsam—Morrow, 95 p., illus. by Kathleen Elgin, \$2.75. Natural science reading for intermediate level.

INTRODUCTION TO THE STUDY OF ANIMAL POPULATIONS—H. G. Andrewartha—Univ. of Chicago Press, 281 p., diagrams, paper, \$1.95. Reprint (1961) of textbook on animal ecology, presents a comprehensive outline of the theory of environment together with manual of practical exercises.

THE LANGUAGE OF MATHEMATICS—Frank Land—Doubleday, 264 p., illus., \$4.95. Originally (1960) published in England, revised for American reader, the book discusses interesting areas of modern mathematics by relating number systems and compound units, algebra, sequences, shapes and sizes to areas not generally considered in mathematical terms.

MAGNETOHYDRODYNAMIC SHOCK WAVES—J. Edward Anderson—M.I.T. Press, 226 p., diagrams, \$6.50. Monograph dealing with the existence, uniqueness and qualitative properties of steady-state magnetohydrodynamic shock waves and with their stability as a result of small-flow disturbances.

THE MARVEL OF GLASS—Walter Buehr—Morrow, 95 p., illus. by author, \$3. A short history of glassmaking for young readers.

MAST CELLS AND BASOPHILS—J. Padawer, Ed.—N.Y. Acad. of Sciences, Annals, Vol. 103, Art. 1, 491 p., illus., paper, \$6. Conference papers provide the first general review of specific functions for mast cells and for basophils. Appendix (141 p.) of reprint of *The Mast Cells* by Nicholas A. Michels from Downey's *Handbook of Hematology*.

MATHEMATICAL LOGIC AND THE FOUNDATIONS OF MATHEMATICS: An Introductory Survey—G. T. Knebone—Van Nostrand, 435 p., \$12.50. Work designed as an introduction for the mathematics major, the high school mathematics teacher, and postgraduates specializing in some other branch of mathematics.

MEDICAL BIOMETEOROLOGY: Weather, Climate and the Living Organism—S. W. Tromp with 26 contributors—Elsevier (N.Y.), 991 p., illus., \$45.

\$45. A comprehensive and authoritative introduction to the new border science studying the influence of weather and climate on the living organism, with special emphasis on its medical aspects.

MIDDLE EASTERN MYTHOLOGY—S. H. Hooke—Penguin, 199 p., 16 plates, paper, 95¢. Taking into account the discoveries of archaeologists during the last half-century, the book surveys the mythology of the Egyptians, Babylonians, Assyrians, Hittites and Hebrews.

THE NATURE OF SCIENTIFIC THOUGHT—Marshall Walker—Prentice-Hall, 184 p., diagrams, \$4.50; paper, \$2.25. Written for the general, educated reader who wishes to learn the basic purpose and procedure common to all sciences, the author attempts to show scientific thought as a single monolithic structure.

NOBEL PRIZE WINNERS IN CHEMISTRY: 1901-1961—Edouard Farber—Abelard-Schuman, rev. ed., 341 p., illus., \$6.50. Biographical sketches, description of prize-winning work, and summaries of the consequences of each of these works in theory and practice.

101 WAYS TO USE YOUR COLOR-TV TEST EQUIPMENT—Robert G. Middleton—Sams, 144 p., illus., paper, \$2.50. For television technicians.

PROCEEDINGS OF THE CONFERENCE ON PROGRESS IN NUCLEAR EDUCATION, held at Gatlinburg, Tenn., Aug. 1962—Lynn E. Weaver and others—AEC (OTS), 190 p., illus., paper, \$2.75. Discussion and evaluation of graduate programs, undergraduate preparation, advances in secondary schools and general progress in education in nuclear science and engineering.

PROGRESS IN ELECTROMYOGRAPHY: Nerve Conduction, Neuromuscular Transmission, Reflex Excitability, Spontaneous and Voluntary Motor Activity—Paolo Pinelli, Ed., with J. Buchthal and F. Thiebaut—Elsevier Pub. Co. (N.Y.), 184 p., illus., \$10. Proceedings of the first international congress on the present state of this branch of applied neurophysiology.

THE PSYCHOLOGY OF C. G. JUNG: An Introduction with Illustrations—Jolande Jacobi—Yale Univ. Press, 6th rev. ed., 193 p., 19 plates, paper, \$1.75. Well organized summary of the work of the psychologist.

QUANTITATIVE CHEMICAL MICRO-ANALYSIS—C. J. van Nieuwenburg and J. W. L. van Ligten, transl. from Dutch by C. G. Verwer—Elsevier (N.Y.), 181 p., diagrams, \$6. Gives a summary of a system of gravimetric and volumetric micro-analysis developed and employed by the authors.

THE RADIO AMATEUR'S HANDBOOK—Headquarters Staff of the American Radio Relay League, Byron Goodman, Ed.—Am. Radio Relay League, 40th ed., 592 p., index and catalog section, illus., \$6; paper, \$3.50. The standard manual of amateur radio communication.

RED STAR IN SPACE—Martin Caidin—Crowell-Collier, 280 p., photographs, \$4.95. A documented chronicle of Russia's space efforts and achievements, with useful appendixes of data.

A RESUME OF THE GEOLOGY OF ARIZONA—Eldred D. Wilson—Univ. of Ariz. Press, Ariz. Bur. of Mines Bull. 171, 140 p., photographs, paper, \$1. A well illustrated reference to the rock units, structure, physiography and economic geology of Arizona.

THE SCIENTIST SPECULATES: An Anthology of Partly-Baked Ideas—Irving John Good, Alan James Mayne and John Maynard Smith, Eds.—Basic Bks., 413 p., diagrams, \$6.95. Collection of essays, suggestions and other notes by imaginative men, among them prominent scientists, playing with ideas in every field of science.

A SHORT HISTORY OF RELIGIONS—E. F. Kellett—Penguin, 605 p., paper, \$1.65. Reprint (1933) of a survey of the major religions of the world.

THE SOCIOLOGY OF NATURE—Leslie Reid—Penguin, rev. ed., 288 p., 12 plates, paper, \$1.45. Naturalist describes the complexity of the life of animals in relation to their environment and the conditions of climate, soil and plant-life which determine this environment.

SOLID STATE PHYSICS: Advances in Research and Application, Vol. 14—Frederick Seitz and David Turnbull, Eds.—Academic Press, 519 p., \$16. Covers g factors and spin lattice relaxation, theory of exchange in insulators, ESR spectroscopy in molecular solids, and molecular motion in solid state polymers.

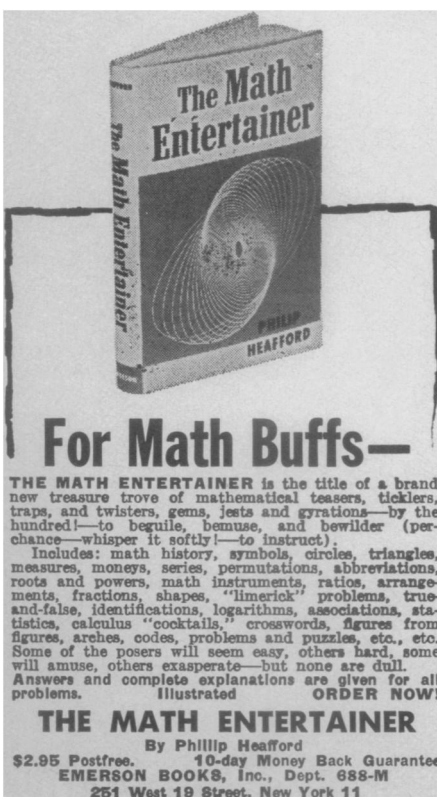
THE TRUE BOOK OF WHALES and Other Sea Mammals—Elsa Posell—Childrens Press, 47 p., illus. by Arthur Warheit, \$2. Informative reading for beginners.

UNDERSTANDING CHEMISTRY—Lawrence P. Lessing—New Am. Lib., 192 p., diagrams, paper, 60¢. Reprint (1959).

U.S. STANDARD ATMOSPHERE, 1962: ICAO Standard Atmosphere to 20 km, Proposed ICAO Extension to 32 km, Tables and Data to 700 km—NASA, USAF and U.S. Weather Bureau—GPO, 278 p., \$3.50. Revision based on increased knowledge of the higher atmosphere and more accurate determinations of basic quantities.

WOODCHUCKS AND THEIR KIN—Charles L. Ripper—Morrow, 64 p., illus. by author, \$2.75. For young readers.

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