

# 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.

**AIR**—Irving and Ruth Adler—*Day*, 48 p., illus. by authors, \$2. A first reader about the earth's atmosphere.

**ARISTOTLE DICTIONARY**—Thomas P. Kiernan, introd. by Theodore E. James—*Philosophical Lib.*, 524 p., \$7.50. Introduction discusses the major works of Aristotle.

**AVIATION ELECTRONICS HANDBOOK**—Keith W. Bosc—*Bobbs*, 224 p., illus., paper, \$4.95. Guide to electronic equipment used in aircraft, its design, operation and maintenance.

**CALCULUS OF VARIATIONS**—L. E. Elsgolc—*Addison-Wesley*, 178 p., \$4.50. Translation of Russian work, aimed at familiarizing engineers with the principles and standard methods of solving variational problems.

**CHEMISTRY CREATES A NEW WORLD**—Bernard Jaffe, introd. by Glenn T. Seaborg—*Pyramid*, 256 p., illus., paper, 75¢. Reprint (1957).

**DEVELOPMENT AND STRUCTURE OF PLANTS: A Photographic Study**—Addison E. Lee and Charles Heimsch—*Holt*, 64 p., illus., paper, \$1.50. Visual aid for students in elementary biology or botany.

**DIAGNOSTIC TABLES FOR THE COMMON MEDICAL BACTERIA**—S. T. Cowan and K. J. Steel—*Cambridge*, 15 p., illus., paper, \$1. Describes Determinator device and gives tables suitable for use in identification of microorganisms.

**ELECTROCHEMICAL MEASURING INSTRUMENTS**—John R. Collins—*Rider*, 121 p., illus., paper, \$3.25. Presents basic principles of electrochemis-

try and shows how they apply to instruments.

**ELECTROMECHANICS: A First Course in Electromechanical Energy Conversion**—Hugh Hildreth Skilling—*Wiley*, 475 p., diagrams, \$10. Text stresses basic principles, includes modern systems development.

**ELEMENTARY VECTOR GEOMETRY**—Seymour Schuster—*Wiley*, 213 p., illus., \$4.95. Deals primarily with the development of vector algebra as a mathematical tool in geometry and trigonometry, on advanced high school level.

**EVOLUTION AND GENETICS: The Modern Theory of Evolution**—David J. Merrell—*Holt*, 420 p., illus. by Olivia Jensen Ingersoll, photographs, \$6. College text, considers the nature of the evidence for evolution and the operation of evolutionary forces. Glossary included.

**FERTILITY IN MARRIAGE: A Guide for the Childless**—Louis Portnoy and Jules Saltman—*Collier*, 220 p., paper, 95¢. Reprint (1950).

**FUNDS FOR RESEARCH AND DEVELOPMENT IN INDUSTRY, 1959: Performance and Financing**—*Nat. Science Foundation (GPO)*, 120 p., paper, 60¢. Detailed analysis of R&D employment and expenditures by industry.

**GENETICS**—Robert C. King—*Oxford Univ. Press*, 347 p., illus. by E. John Piffner, \$7.50. Undergraduate textbook, combines classical viewpoint with up-to-date research advances in biochemical, radiation, evolution and population genetics.

**THE GOLDEN AGE OF QUACKERY**—Stewart H. Holbrook—*Collier*, 284 p., paper, 95¢. Reprint (1959).

**THE GOLDEN BOOK OF GARDENING: How to Plan, Plant and Care for a Home Garden**—Frances Giannoni and Seymour Reit—*Golden Press*, 69 p., illus. by W. Sayles and T. Tierney, \$1.99. Attractive book for boys and girls.

**A HISTORY OF THE SCIENCES**—Stephen F. Mason—*Collier*, rev. ed., 638 p., paper, \$1.95. Reprint (1956).

**HOW TO EXPLORE THE SECRET WORLDS OF NATURE**—Vinson Brown—*Little*, 174 p., illus. by Don Greame Kelley, \$3.50. Nature lore experiments for boys and girls.

**INTRODUCTION TO ELEMENTARY FUNCTIONS**—Wilfred J. Combellack—*Wiley*, 343 p., \$6.95. One-semester textbook at precalculus level.

**JAMES CLERK MAXWELL AND ELECTROMAGNETISM**—Charles Paul May—*Watts, F.*, 152 p., illus., \$1.95. Juvenile biography.

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**A KEY TO THE HEAVENS**—Leo Mattersdorf—*Premier*, 159 p., paper, 50¢. Reprint (1947).

**KINEMATICS OF MECHANISMS FROM THE TIME OF WATT**—Eugene S. Ferguson—*U.S. Nat. Mus. (GPO)*, 44 p., illus., paper, 40¢. About scholars and machines, with many historical pictures.

**THE KINGDOM OF THE SUN**—Isaac Asimov—*Collier*, rev. ed., 157 p., illus., paper, 95¢. Reprint (1960).

**LIVING WITH THE ATOM**—Ritchie Calder—*Univ. of Chicago Press*, 275 p., photographs, \$5.95. Presents the realities of nuclear development, known and suspected dangers, safeguards to health, waste disposal and prevention of contamination.

**MACHINE-INDEPENDENT COMPUTER PROGRAMMING**—Maurice H. Halstead—*Spartan Bks*, 269 p., \$6.50. Designed to teach student how to "write to" computers in the Neliac language, then teach the computer how to read Neliac, "a dialect of Algol."

**MATHEMATICS IN EVERYDAY THINGS**—William C. Vergara—*New Am. Lib.*, 300 p., illus., paper, 75¢. Reprint (1959).

**MEDICAL CARE OF THE ATHLETE**—Allan J. Ryan—*McGraw*, 343 p., illus., \$9.75. Discusses every aspect of sports which concerns the physician, from pre-season physical examination to reconditioning of injured athlete.

**MICROBIAL CLASSIFICATION: Twelfth Symposium of the Society for General Microbiology, London, April 1962**—G. C. Ainsworth and P. H. Sneath, Eds.—*Cambridge*, 483 p., illus., \$9.50. Authoritative account of current approaches to the classification of microorganisms.

**MOLECULAR STRUCTURE AND THE PROPERTIES OF LIQUID CRYSTALS**—G. W. Gray—*Academic Press*, 314 p., illus., \$9. Primarily addressed to those engaged in research on liquid crystals.

**A NATURE CENTER FOR YOUR COMMUNITY**—Joseph J. Shomon—*Nat. Audubon Soc.*, 40 p., 52 photographs, paper, \$1 direct to publisher, 1130 5th Ave., New York 28, N. Y. Discusses objectives, planning and costs.

**NON-DESTRUCTIVE TESTING OF CONCRETE**—R. Jones—*Cambridge*, 104 p., illus., \$4.75. Describes four methods for assessing the quality of concrete: resonance, pulse, radioactive absorption and hardness method.

**NUCLEAR RISK IN OCEAN TRANSPORT AND ITS INSURABILITY**—Robert A. Kaye and others, foreword by Robert R. Dwelly—*Internat'l Insurance Monitor*, 71 p., paper, \$2.50. Papers read at 1962 Forum on Ocean Transport of Radioactive Materials.

**OCEANS**—Irving and Ruth Adler—*Day*, 48 p., illus. by authors, \$2. Oceanography at elementary reading level.

**1001 ANSWERS TO QUESTIONS ABOUT TREES**—Rutherford Platt—*Grosset*, 318 p., illus. and photographs by author, paper, \$1.95. Authoritative reference, cross-indexed.

**PROGRESS IN POLAROGRAPHY, Vol. I**—P. Zuman with I. M. Kolthoff, Eds.—*Interscience*, 355 p., illus., \$12. Contributions by specialists on recent advances, including survey of polarographic literature.

**REVOLUTION IN ELECTRICITY**—Martin Mann—*Viking*, 171 p., photographs, diagrams, \$5. The story of transistors, solar cells, giant magnets and electronic lights.

**THE ROAD TO MAN**—Herbert Wendt, transl. by Helen Sebbä—*Pyramid*, 156 p., photographs, paper, 75¢. Reprint (1959).

**THE SHIP WOULD NOT TRAVEL DUE WEST**—David Lewis—*St Martins*, 154 p., photographs, maps, \$4.50. Physician's account of 54 days at sea, crossing the Atlantic in a sloop.

**A SHORT INTRODUCTION TO ARCHAEOLOGY**—V. G. Childe—*Collier*, 127 p., paper, 95¢. Reprint (1956).

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**SINGLE-SIDEBAND COMMUNICATIONS HANDBOOK**—Harry D. Hootan—*Sams (Bobbs)*, 286 p., illus., \$6.95. Reference text on principles and circuitry, for the amateur radio enthusiast.

**TRIANGLES: Getting Ready for Trigonometry**—Henry M. Neely—*Crowell*, 114 p., illus. by George Giusti, \$2.75. For young people.

**UNCERTAINTY AND STRUCTURE AS PSYCHOLOGICAL CONCEPTS**—Wendell R. Garner—*Wiley*, 369 p., \$8.95. Utilizes the mathematics of information theory to develop concepts and analyze psychological problems.

**UNITED STATES AIRCRAFT, MISSILES AND SPACECRAFT, 1962**—*Nat. Aviation Educ. Council*, 160 p., illus., paper, \$1.50. Depicts and gives general specifications of aircraft and missiles in production.

**USE AND ABUSE OF STATISTICS**—W. J. Reichmann—*Oxford Univ. Press*, 336 p., diagrams, \$5. Designed to familiarize the general reader with statistics, how they may be used and how they should not be used.

**THE VALIDATION OF SCIENTIFIC THEORIES**—Philipp G. Frank, Ed.—*Collier*, 220 p., paper, 95¢. Reprint (1956).

**VECTOR MECHANICS FOR ENGINEERS, Part II: Dynamics**—Harry R. Nara, Ed.—*Wiley*, 434 p., diagrams, \$6.50. Designed for first undergraduate course in dynamics for engineers.

**THE WORLD OF CARBON**—Isaac Asimov—*Collier*, rev. ed., 158 p., paper, 95¢. First published in 1958.

**THE WORLD OF ELI WHITNEY**—Jeannette Mirsky and Allan Nevins—*Collier*, 350 p., paper, 95¢. Reprint (1952).

**THE WORLD OF NITROGEN**—Isaac Asimov—*Collier*, rev. ed., 155 p., paper, 95¢. First published in 1958.

**YANKEE SCIENCE IN THE MAKING**—Dirk J. Struik—*Collier*, rev. ed., 544 p., paper, \$1.50. First published 1948.

**YOU CAN PREVENT ILLNESS**—Edward R. Pinckney—*Collier*, 157 p., paper, 95¢. Reprint (1960).

**YOUR BIOLOGY**—Ella Thea Smith and Lorenzo Lisonbee—*Harcourt*, 2nd ed., 472 p., illus., \$5.04. Eighth grade level, with many illustrations.

• Science News Letter, 81:284 May 5, 1962

#### GENERAL SCIENCE

### Mud Pies to Silt, Study Course of Young Scientist

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• Science News Letter, 81:285 May 5, 1962

## MANKIND EVOLVING

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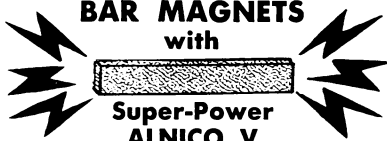
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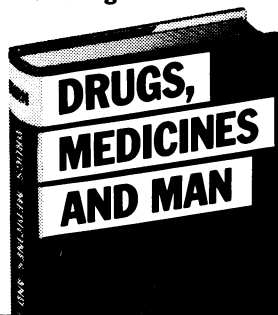
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