

# 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.

**A CONCISE GUIDE TO PLASTICS**—Herbert R. Simonds and James M. Church—Reinhold, 2nd ed., 392 p., illus., \$12. Updated and expanded source of information on all phases of the plastics field, properties, forms, compounding, processing, production, manufacturers, and trade names.

**DISCOVERING SCIENCE THROUGH EXPERIMENTS**—James V. Pacilio—Denison, 94 p., illus. by Carvel Lee, \$3.95. Collection of basic, clearly explained experiments for beginners.

**EFFECTIVE SECONDARY SCHOOL DISCIPLINE**—Knute G. Larson and Melvin R. Karpas—Prentice-Hall, 206 p., \$4.95. Attempts to bring together the best contemporary thinking on the subject of meeting disciplinary problems in the modern secondary school.

**THE FIRST BOOK OF CENTRAL AMERICA AND PANAMA**—Patricia Maloney Markun—Watts, F., 90 p., photographs, map, \$2.50. Introduction to land and people.

**FLATLAND: A Romance of Many Dimensions**—A Square (Edwin A. Abbott), introd. by William Garnett—Barnes & Noble, 5th ed., rev., 108 p., illus. by author, paper, \$1. Reprint of mathematician's 19th century satire about a sphere landing in a land of two dimensions.

**GENETICS, PALEONTOLOGY AND EVOLUTION**—Glenn L. Jepson, Ernst Mayr and George Gaylord Simpson, Eds.—Atheneum, 474 p., diagrams, paper, \$1.95. Originally (1949) published for the Committee on Common Problems of Genetics, Paleontology and Systematics of the National Research Council.

**GEOLOGY OF AFRICA**—Raymond Furon, transl. from French by A. Hallam and L. A. Stevens—Hafner Pub. Co., 377 p., illus., \$7.95. Deals with the stratigraphical succession peculiar to Africa and gives a region by region geology based on the present stage of knowledge, exclusive of the Mediterranean area.

**GEOMETRIC CONSTRUCTIONS**—M. Scott Norton—Webster Pub. Co., 63 p., illus., paper, 85¢. Exercises for exploring mathematics on your own.

**GRAVITY AT WORK AND PLAY**—Sune Engelbrektson—Holt, 28 p., illus. by Eric Carle, \$1.95. Helps the very young to visualize the meaning of the word gravity.

**THE GREAT TREE OF LIFE: Paleontology, the Natural History of Living Creatures**—L. J. Ludovici—Putnam, 189 p., illus. by Frank Aloise, \$3.50. About records in stones, digging up the past, man's ancestors and dating methods, for young people.

**HEREDITY AND HUMAN LIFE**—Hampton L. Carson—Columbia Univ. Press, 218 p., illus., \$5. Scientist sets forth the scientific facts about the nature and origin of life and man, to aid in the understanding of human variation, from differences within a family to differences within the human races.

**HUMAN SEX AND HEREDITY: Who's Who, and Why**—Roger Pilkington—Watts, F., 110 p., illus., \$2.95. Informal and up-to-date discussion of reproduction and of the mechanisms of inherited traits, for teenagers.

**INTERNATIONAL REVIEW OF CYTOLOGY**, Vol. 14—G. H. Bourne and J. F. Danielli, Eds.—Academic Press, 414 p., illus., \$16. Among subjects covered are inhibition of cell division, electron microscopy of plant protoplasm, drug resistance of staphylococci, and the tissue mast cell.

**JUNIOR SCIENCE DICTIONARY**—G. E. Caraker—Butterworths (D. C.), 99 p., paper, \$1.85. Explains scientific terms, from "Abbe illumination" to "Zymase," includes tables, formulas, satellite data and list of scientists.

**LABORATORY EXPERIMENTS IN THE PHYSICAL SCIENCES**—Anton Postl—Burgess, 4th ed., 97 p., illus., maps, paper, \$3.25. For the beginner.

**MAN AND HIS PHYSICAL UNIVERSE**—Richard Wistar—Wiley, 2nd ed., 376 p., illus., \$7.95. A text designed to provide a sound foundation in the physical sciences for students not majoring in science.

**MAYA ARCHAEOLOGIST**—J. Eric S. Thompson—Univ. of Okla. Press, 284 p., illus., \$5. An account of experiences during expeditions and excavations of ancient Maya cities such as Uxmal, Chichen Itza, Copan, Tikal and Quirigua.

**MOUNT EVEREST: Formation, Population and Exploration of the Everest Region**—Toni Hagen and others, transl. from German by E. Noel Bowman—Oxford Univ. Press, 195 p., photographs, folded map by Erwin Schneider, \$8. Treats the geology and evolution of the Himalayas, the chronology of exploration of the Everest massif, and the Sherpas of the Khumbu region.

**THE MOUNTAIN GORILLA: Ecology and Behavior**—George B. Schaller—Univ. of Chicago Press, 431 p., photographs and illus. by author, \$10. Result

of the African Primate Expedition (1959-60), this remarkably thorough report describes, tabulates, analyzes and evaluates the habits of free-living gorillas in the eastern Congo and western Uganda.

**THE NATURAL PHILOSOPHY OF TIME**—G. J. Whitrow—Harper, 324 p., paper, \$1.95. Scientist's considerations of universal, individual, mathematical, relativistic and cosmic time. Annotated and indexed.

**NEW AND NONOFFICIAL DRUGS 1963**—Council on Drugs of the A.M.A.—Lippincott, 902 p., \$4. An annual compilation of available information on drugs, including their therapeutic, prophylactic and diagnostic status, as evaluated by the Council on Drugs of the American Medical Association.

**THE NEW ILLUSTRATED LIBRARY OF SCIENCE AND INVENTION**, Vol. 1: A History of Rockets and Space—Courtlandt Canby—Hawthorn Books, 112 p., designed by Erik Nitsche, photographs, sold only by subscription direct to: New Illus. Lib. of Science and Invention, 400 Community Dr., Manhasset, L. I., N. Y., \$54 for set of 12 volumes; \$4.95 monthly. Colorful, handsomely designed, readable and informative volume, with chronology on rocket development, printed in Switzerland.

**1963 UNITED STATES AIRCRAFT, MISSILES AND SPACECRAFT**—James J. Haggerty, Jr.—Nat. Aerospace Educ. Council, 168 p., photographs, diagrams, paper, \$2. Descriptions, specifications and performance data of currently produced aircraft.

**OLIGOCENE BIOSTRATIGRAPHY OF THE SANTA BARBARA EMBAYMENT, CALIFORNIA**—R. M. Klempell and D. W. Weaver—Univ. of Calif. Press, 250 p., plates, maps, paper, \$8. Treats foraminiferal faunas and mollusca, and provides systematic catalogue and register of localities.

**PARAMEDICAL MICROBIOLOGY**—Stanley E. Wedberg—Reinhold, 462 p., illus., \$6.75. Condensed course for students in medical technology, physical therapy and pharmacy.

**PEARY TO THE POLE**—Walter Lord—Harper, 141 p., photographs, \$2.95. The heroic story of the conquest of the North Pole after six attempts and 22 years of effort, told for young readers.

**PENGUIN SCIENCE SURVEY, 1963-A: Astronomy, Chemistry, Cosmology, Education, Mathematics, Physics, Space Research**—Arthur Garratt, Ed.—Penguin, 224 p., 16 plates, diagrams, paper, \$1.65. A survey of contemporary research in the physical sciences, selected to present to the reader the general trends research is following.

**PENGUIN SCIENCE SURVEY, 1963-B: Biology, Genetics, Agriculture, Medicine, Zoology**—S. A. Barnett and Anne McLaren, Eds.—Penguin, 242 p., 8 plates, diagrams, paper, \$1.65. Reviewing recent advances, the editors aimed at making accessible some of the biological facts and ideas reflecting the conflict between humane uses of biological knowledge and some of its misapplications today.

**A PICTURE DICTIONARY FOR THE HOME GARDENER**—Andree Vilas Grabe—Hill & Wang, 168 p., 275 photographs, \$4.95. Practical gardening advice and reference to the culture of more than 850 plants.

**PROVE IT**—Rose Wyler and Gerald Ames—Harper, 64 p., illus. by Talivaldis Stubis, \$1.95. Gaily illustrated experiments with water, air, sound and magnets.

**THE RACCOON'S YOUNG ONES**—Irmengarde Eberle—Abelard-Schuman, 61 p., photographs, illus. by Lilian Obligado, \$2.95. Nature story for boys and girls.

**RECENT ADVANCES IN BIOLOGICAL PSYCHIATRY**, Vol. V: Proceedings of 17th Annual Meeting of the Society of Biological Psychiatry, Toronto, 1962—Joseph Wortis, Ed.—Plenum Press, 380 p., illus., \$13.50. Program was mainly devoted to developmental studies, and discussed the role of indole metabolism and the aromatic amines in psychiatric disorders.

**RESIDUE REVIEWS: Residues of Pesticides and Other Foreign Chemicals in Foods and Feeds**, Vol. 2.—Francis A. Gunther, Ed.—Academic Press, 156 p., illus., \$6.50. International critical reviews of advances in determining plant growth regulating substances, parathion on leafy crops, and assay with spectrophotometric procedures.

**SCIENCE, ETHICS AND POLITICS**—Albert Szent-Gyorgyi, with Appreciation by Bertrand Russell—Vantage Press, 91 p., \$2.50. Collection of public statements by the eminent biochemist.

**SERVICING FM-STEREO RECEIVERS**—Edward M. Noll—Sams, 128 p., illus., paper, \$2.50. For service technicians and stereo hi-fi fans.

**SIERRA NEVADA NATURAL HISTORY: An Illustrated Handbook**—Tracy I. Storer and Robert L. Usinger—Univ. of Calif. Press, 374 p., illus., 24 color plates, paper, \$4.95. Compact guide including more than 750 species of plants and animals for identification.

**SOLID STATE PHYSICS, Advances in Research and Application, Supplement 3: THEORY OF LATTICE DYNAMICS IN THE HARMONIC APPROXIMATION**—A. A. Maradudin, E. W. Montroll and G. H. Weiss; Frederick Seitz and David Turnbull, Eds.—Academic Press, 319 p., \$10.

**SPACE RADIO COMMUNICATION: A Symposium held under the auspices of the International Scientific Radio Union in Paris, 1961**—G. M. Brown, Ed.—Elsevier (N. Y.), 631 p., illus., \$25. Papers and discussions of frequency allocations, satellite and ground equipment, and modulation systems.

**SPACE SCIENCE**—Donald P. Le Galley, Ed.—Wiley, 668 p., illus., \$17.50. Records and evaluates the theoretical and experimental findings of the first five years of the space age, the new knowledge obtained from space probes, radio and optical astronomy, written by recognized authorities.

**STAR GAZING WITH TELESCOPE AND CAMERA**—George T. Keene—Chilton Bks., 128 p., illus., \$2.95; paper, \$1.95. Written for amateur astronomers, covers the fundamentals of choosing and making a telescope, of visual observations and astrophotography.

**THE SUN IS A STAR**—Sune Engelbrektson—Holt, 28 p., illus. by Eric Carle, \$1.95. Dramatically illustrated book for children.

**THEMES, THEORIES AND THERAPY: The Teaching of Writing in College**—Albert R. Kitzhaber—McGraw, 175 p., \$4.95. A critical survey of the standards and attempts at improving the ability of students to communicate in correct and comprehensible English.

**THIS IS A FLOWER**—Ross E. Hutchins—Dodd, 152 p., photographs by author, \$3.50. Handsome book tells the story of flowering, pollination, perfume and other characteristics of flowers.

**TREES OF NORTHERN FLORIDA**—Herman Kurz and Robert K. Godfrey—Univ. of Fla. Press, 311 p., illus., \$8.50. Key to genera and taxonomic treatment of native trees of the warm temperate areas of northern Florida.

**THE TRIUMPH OF THE SEEING EYE**—Peter Putnam; Walter Lord, Ed.—Harper, 178 p., photographs, \$2.95. Moving story of the care and education of dogs for the blind, and their contribution in rehabilitating the blind.

**TURBINE-ENGINEED AIRLINERS OF THE WORLD**—F. G. Swanborough—Temple Press (Aero Pubs.), 130 p., 300 photographs, scale drawings, \$5. Information about turboprop and turbojet airliners in regular service, from "Antonov An-24 (USSR)" to "Vickers Viscount 800 (Great Britain)."

**THE ULCER DIET COOK BOOK**—Harold Rubin, introd. by Franz J. Lust, M.D.—Evans (Lippincott), 223 p., \$4.95. Medically checked recipes, keyed to either the early or later phase of the ulcer diet.

**THE UPANISADS, Parts I and II**—Transl. by F. Max Muller—Dover, 320 p., 350 p., paper, \$2 each. Unabridged republication (1879, 1884).

**THE VALUE OF WATER IN ALTERNATIVE USES: With Special Application to Water Use in the San Juan and Rio Grande Basins of New Mexico**—Nathaniel Wollman, Dir.—Univ. of New Mexico Press, 426 p., maps, \$10. A study conducted on the economic effects of different patterns of water use in an arid region.

**WATERPROOFING AND WATER-REPELLENCY**—J. L. Moilliet, Ed.—Elsevier (N. Y.), 502 p., illus., \$18. Expert treatment of the physical, organic and inorganic chemistry of waterproofing processes, water-repellent finishes of synthetic fibers, coated fabrics and buildings materials, and the waterproofing mechanisms in animals and plants.

**WHEELS, WINGS AND WATER: The Story of Cargo Transport**—Charles I. Coombs—World Pub. Co., 222 p., 100 photographs, \$4.95. Depicts and describes for young people the various developments in transportation vehicles.

**WILD FLOWERS OF AMERICA**—H. W. Rickett—Crown Pubs., 471 p., 400 illus., \$15. Third reprint of 400 flowers in full color from paintings by Mary Vaux Walcott and Dorothy Falcon Platt, with description, identification chart and index.

**WONDERS OF THE WOODS AND DESERT AT NIGHT**—Jacquelyn Berrill—Dodd, 78 p., illus. by author, \$3. Tells boys and girls about badger, bobcat, muskrat, moose and owl.

**WORLD-WIDE FRENCH DICTIONARY: French-English; English-French (American English)**—Richard Switzer and Herbert S. Gochberg—Follett, 512 p., paper, \$1.65. Modern dictionary, 40,000 entries, many synonyms and idioms, with traveler's conversation guide.

**WORLD-WIDE GERMAN DICTIONARY: German-English; English-German (American English)**—Paul H. Gluckman; Herbert Rodeck and T. C. Appelt, Eds.—Follett, 533 p., paper, \$1.65. Modern, readable type, synonyms, idioms and conversation guide.

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