

Books of the Week

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ADVANCES IN HEAT TRANSFER, Vol. 1—Thomas F. Irvine, Jr. and James P. Hartnett, Eds.—Academic Press, 459 p., illus., \$16. Intended to fill the gap between the regular journal publications and the university level texts.

ADVENTURES WITH FRESHWATER ANIMALS—Richard Headstrom—Lippincott, 217 p., illus. by author, \$4.25. Describes dozens of exploratory adventures and close observations of small life forms such as protozoa, tadpoles, blackflies, leeches and copepods.

ALL ABOUT ROCKETS AND SPACE FLIGHT—Harold L. Goodwin—Random House, 143 p., illus. by John Polgreen, photographs, \$1.95. An authoritative account for boys and girls.

AN ANT IS BORN—Harald Doering and Jo Mary McCormick—Sterling, 96 p., photographs by Harald Doering, \$2.95. Gives a close-up view of the ant world, such as a battle between ants and a snail, and the habits of various species.

ANTOINE LAVOISIER and the Revolution in Chemistry—Rebecca B. Marcus—Watts, F., 179 p., illus., \$3. Juvenile biography with chronology and index.

ATLANTIC CRISIS: American Diplomacy Confronts a Resurgent Europe—Robert Kleiman—Norton, 158 p., \$2.95. Originally prepared as a background paper for the Council on Foreign Affairs, now updated to include some of the views and early policies of the Johnson administration.

BIRTH OF A FOREST—Millicent E. Selsam—Harper, unpagged, photographs, illus. by Barbara Wolff, \$2.50. A handsome and informative book for children.

CARL FRIEDRICH GAUSS: Prince of Mathematicians—William L. Schaaf—Watts, F., 168 p., illus., \$3. Juvenile biography with emphasis on the mathematician's contributions to science.

COLLEGE CHEMISTRY: An Introductory Textbook of General Chemistry—Linus Pauling—Freeman, 3rd ed., 832 p., 249 illus. by Roger Hayward, \$8.25. Revised edition presents systematic and unified discussion of chemical theory, includes advanced material in optional sections.

COOKING WITHOUT A GRAIN OF SALT—Elma W. Bagg, foreword by A. Gregory Jameson, M.D.—Doubleday, 224 p., \$4.95. A palatable collection of tested low-sodium calibrated recipes and other useful suggestions for those whose doctors advise them to restrict sodium intake in their diets.

DEATH VALLEY: Origin and Scenery—John H. Maxson—Death Valley Nat. Hist. Assn., 59 p., photographs, maps, diagrams, paper, \$1.50. The geology of the Death Valley region, for geologists and interested laymen.

EDUCATION AND THE IDEA OF MANKIND—Robert Ulich, Ed.—Harcourt, 279 p., \$6.95. Essays by leading scholars consider the purposes for which schools exist, from elementary through graduate education.

ELECTRON ENERGY BANDS IN SOLIDS—Joseph Callaway—Academic Press, 114 p., diagrams, \$3.95. Reprinted from Volume 7, 1958, Solid State Physics.

ELECTRONIC SPECTRA OF MOLECULES AND IONS IN CRYSTALS: Molecular Crystals and Spectra of Ions in Crystals—Donald S. McClure—Academic Press, 175 p., diagrams, \$3.95. Reprinted from Volumes 8 and 9, 1959, Solid State Physics.

ELECTRONICS IN EVERYDAY THINGS—William C. Vergara—Barnes & Noble, 235 p., photo-

graphs, diagrams by author, paper, \$1.75. Reprint (1961), interprets the wonders of modern electronics in nontechnical language.

THE ELEMENTS AND STRUCTURE OF THE PHYSICAL SCIENCES—J. A. Ripley, Jr.—Wiley, 584 p., diagrams, \$8.95. A study of the genesis of theories and their logical relationship to one another and to the observational evidence, presents the material of science in its historical development.

FUNDAMENTALS OF LIMNOLOGY—Franz Ruttner, transl. by D. G. Frey and F. E. J. Fry—Univ. of Toronto Press, 3rd ed., 295 p., illus., \$6.95. Half of the book is concerned with the comprehensive discussion of water as an environment, dissolved substances and their transformations, followed by discussion of biotic communities.

HANDBOOK OF PEST CONTROL: The Behavior, Life History and Control of Household Pests—Arnold Mallis—MacNair-Dorland, 4th ed., 1,148 p., illus., \$14.25. A comprehensive reference work on household pests with detailed discussion of alternative control measures, fully revised, incorporates up-to-date literature search, written in language the layman can understand.

INTRODUCTION TO ATOMIC AND NUCLEAR PHYSICS—D. E. Caro, J. A. McDonell and B. M. Spicer; foreword by Melba Phillips—Aldine Pub. Co., 222 p., illus., \$6. Using the historical approach, the book offers a concise introduction to the rise and nature of modern atomic concepts.

THE LANGUAGE OF NATURE: An Essay in the Philosophy of Science—David Hawkins—Freeman, 372 p., illus. by Evan L. Gillespie, \$7.50. An analysis of a wide range of scientific topics, including thermodynamics and information theory.

LIBRARY CATALOGS: Changing Dimensions—Ruth French Strout, Ed.—Univ. of Chicago Press, 127 p., \$3.75. Nine conference papers re-evaluate the format of catalogs as well as their functions in meeting the present demands of scholarship.

MAGNET—E. G. Valens—World Pub. Co., unpagged, photographs by Berenice Abbott, \$3. Depicts clearly in word and picture the elementary principles of magnetism.

MARKET AND PRICES: Theory of Consumption, Market and Market Prices—Wladimir S. Woytinsky, transl. from Russian by Emma S. Woytinsky, foreword by M. I. Tugan-Baranovsky (St. Petersburg, 1906) and Jacob Marschak (Los Angeles, 1960)—Reprints of Economic Classics, 256 p., illus., \$8.50. A precocious theoretical treatise, first published in 1906, by a 17-year-old future social statistician of world renown.

MATHEMATICS—Samuel Rapport and Helen Wright, Eds.—Washington Square Press, 319 p., diagrams, paper, 60¢. Readings from the world of mathematics with biographical sketches, first published in 1963.

THE MATHEMATICS OF PHYSICS AND CHEMISTRY, Vol. II—Henry Margenau and George Moseley Murphy—Van Nostrand, 786 p., \$15. Mathematical methods of Transport Theory, random processes, information theory, quantum electrodynamics, and recent developments in numerical methods and quantum mechanics.

MEDIAEVAL TECHNOLOGY AND SOCIAL CHANGE—Lynn White, Jr.—Oxford Univ. Press, 194 p., 10 plates, paper, \$1.85. Reprint (1962), examines the role of technological innovation in the rise of social groups during the Middle Ages.

THE NEW INTERNATIONAL YEAR BOOK: A Compendium of the World's Affairs for the Year 1963—Virginia Carew, Ed.—Funk & Wagnalls, 598

p., illus., \$10. Contains resumes of the year's advances in the sciences.

NIGHT SKY AT RHODES—Stephen Toulmin—Harcourt, 221 p., photographs, maps, \$5.75. A philosopher's journey to Greece and Turkey in search of the origins of science.

THE NORTHMEN—Thomas Caldecot Chubb—World Pub Co., 125 p., illus. by Richard M. Powers, \$3.50. An introduction to the voyages of the ancient Scandinavians, for young people.

PATTERNS IN THE BALANCE OF NATURE and Related Problems in Quantitative Ecology—C. B. Williams—Academic Press, 324 p., illus., \$9.50. Draws attention to a large number of problems in statistical ecology, and particularly in population balance, which can be expressed as frequency distributions with a mathematical pattern.

THE PSYCHOLOGIST AND THE FOREIGN-LANGUAGE TEACHER—Wilga M. Rivers—Univ. of Chicago Press, 212 p., \$4. Scholarly discussion and critical appraisal of recent research findings on language as a form of human behavior and the processes of foreign language learning.

THE RISE AND FALL OF THE SPACE AGE—Edwin Diamond—Doubleday, 158 p., \$3.95. A science reporter's analysis of the uses and abuses of the national effort put into the U.S. space program.

SCIENCE: Method and Meaning—Samuel Rapport and Helen Wright, Eds.—Washington Square Press, 258 p., paper, 60¢. Excerpts from the writings of distinguished scientists, reprint (1963).

SEASHORES AND SEASHORE CREATURES—Caary Jackson—Putnam, 95 p., illus. by Frank Aloise, \$2.95. For young science explorers.

SOURCES OF INFORMATION AND UNUSUAL SERVICES—Raphael Alexander, Ed.—Information Directory Co., 7th ed., 100 p., paper, \$3.50. A guide to information available from organizations, agencies and experts in the United States, arranged by subject and cross-indexed.

A STAR CALLED THE SUN—George Gamow—Viking, 208 p., photographs, diagrams by author, \$5.75. Written for the general reader, incorporates the latest findings in presenting atoms and their spectra, the sun's turbulent surface and hot interior, nuclei and their energy, and collapsed stars.

STAR MAPS FOR BEGINNERS—I. M. Levitt and Roy K. Marshall—Simon & Schuster, 47 p., 12 star maps, \$1.50. To facilitate quick orientation the authors divide the sky in quadrants for the monthly star maps.

STRANGE CREATURES—Clifford Webb—Warne, F., unpagged, illus. by author, \$3. Short description for children about some of the more unusual animals such as the moose, African oryx, chameleon and hornbill.

THE SYMBOLIC LANGUAGE OF VINCENT VAN GOGH—H. R. Graetz—McGraw, 315 p., illus., \$9.75. A scholarly interpretation of the painter's progression based on corresponding excerpts from his correspondence.

THE TRIESTE: The Story of the United States Navy's First Inner Space Ship—Dick Snyder, foreword by Andreas Rechenitzer—Golden Gate Jr. Bks., 80 p., photographs by author, \$3.50. The candid camera story follows a boy, son of the scientist in charge of the bathyscaphe program, as he is watching the surface operations during a test dive.

TECHNOLOGY AND SOCIAL CHANGE—Eli Ginzberg, Ed.—Columbia Univ. Press, 158 p., \$4.50. A series of original papers on the role of technology in contemporary U.S. with summaries of discussions by members of the 1962-63 Seminar on Technology and Social Change.

THE THEORY OF ORDER-DISORDER TRANSITIONS IN ALLOYS—Toshinosuke Muto and Yutaka Takagi—ORDER-DISORDER PHENOMENA IN METALS—Lester Guttman—Academic Press, 169 p., \$3.95. Solid State reprint.

THIS IS A TREE—Ross E. Hutchins—Dodd, 159 p., photographs by author, \$3.50. About the inner workings of trees in general and some unusual varieties of trees in particular.

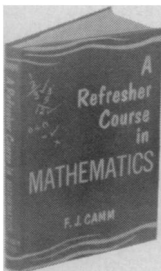
TWO WORLDS OF CHANGE: Readings in Economic Development—Otto Feinstein, Ed.—Doubleday, 420 p., paper, \$1.45. Reprint (1962), investigates the great changes in ancient village and modern urban economics by discussing the underdeveloped areas.

UNDERSTANDING YOUR SENSES: Easy Experiments for Young People—Ann Gilmour—Warne, F., 64 p., photographs by James A. Gilmour, illus. by Robin Callander, \$2.95. Clearly explains how to do each experiment and tells the reasons why it works.

• Science News Letter, 85:300 May 9, 1964

A REFRESHER COURSE IN MATHEMATICS

By F. J. Camm

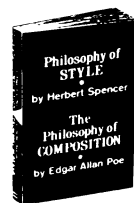


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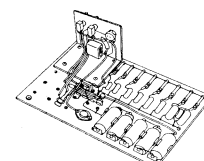
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