

# books OF THE WEEK

Listing is an editorial service for readers' information. For convenient purchase of any book listed or any U.S. book in print, remit retail price (we pay postage) plus 25c handling charge if price is less than \$2 to Book Order Service, Science News, 1719 N St., N.W., Washington, D.C. 20036. Prices subject to publishers' changes. Be sure to include zip code in your address.

**ADHESIVE BONDING:** Techniques and Applications—Charles V. Cagle—McGraw-Hill, 1968, 351 p., illus., \$16. Practical engineering reference, covers engineering design, shop fabrication, and testing of adhesively bonded structures, from suppliers to finished bonded hardware.

**ADVANCES IN NUCLEAR PHYSICS,** Vol. 1—Michel Baranger and Erich Vogt, Eds.—Plenum Press, 1968, 416 p., diagrams, \$18.50. Review papers dealing with the reorientation effect, the nuclear SU3 model, Hartree-Fock theory of deformed light nuclei, and three-particle scattering.

**ALCHEMY**—E. J. Holmyard—Penguin Bks., 1968, 288 p., 36 plates, illus., paper, \$1.65. Describes the ideas and methods of alchemists and early chemists as they developed over 2,000 years, and shows their gradual displacement by the growth of scientific method.

**ALMOST ANCESTORS:** The First Californians—Theodora Kroeber and Robert F. Heizer; F. David Hales, Ed.—Sierra Club, 1968, 168 p., 117 photographs, \$15. A moving book of portraits, most of them photographed at the turn of the century, showing some 100 faces representing the 50 indigenous California Indian tribes now almost extinct.

**THE AMATEUR ASTRONOMER'S HANDBOOK**—James Muir—Crowell, 1968, 355 p., photographs, diagrams, \$6.95. A guide to exploring the sky, provides information about equipment, maintenance, atmosphere and observer, the solar system, planets, comets and stars.

**THE AMERICAN EPHEMERIS AND NAUTICAL ALMANAC** for the Year 1970—Nautical Almanac Office—GPO, 1968, 516 p. \$4.50. Calculations of the principal ephemerides, configurations of satellites, risings and settings and other tables.

**AMERICA'S ARTS AND SKILLS**—Editors of LIFE—Time-Life Bks., 1968, 172 p., 250 photographs in color, \$13.95. Handsome volume, shows the styles of useful things, from Early American tools, Greek Revival buildings and furniture, Southwest mission, cowboy and Indian gadgets, to the tools of today.

**ANCIENT SICILY TO THE ARAB CONQUEST**—M. I. Finley—Viking Press, 1968, 226 p., plates, maps, \$7.50. The history from prehistoric and archaic beginnings to the coming of Greeks and Romans, and finally Byzantine rule.

**ANNUAL REVIEW OF MICROBIOLOGY,** Vol. 22—Charles E. Clifton, Sidney Raffel and Mortimer P. Starr, Eds.—Annual Reviews, 1968, 596 p., illus., \$8.50. Topics covered range from bacterial cytochromes, replication of RNA viruses, and the mechanism of immunity, to article on the mathematics of microbial populations.

**APPALACHIAN FERTILITY DECLINE:** A Demographic and Sociological Analysis—Gordon F. De Jong—Univ. of Ky. Press, 1968, 138 p., charts, maps, paper, \$5. Study describes the decline in the birth rate in one of the major areas of poverty in the country, and analyzes the possible explanations for this change.

**THE AUDUBON ILLUSTRATED HANDBOOK OF AMERICAN BIRDS**—Edgar M. Reilly, Jr.; Olin Sewall Pettingill, Jr., Ed.—McGraw-Hill, 1968, 524 p., 35 color plates, 375 photographs, 100 drawings by Albert Earl Gilbert, \$25; \$19.95 until 12/31/68. Sponsored by the National Audubon Society, this comprehensive volume describes 875 species found in North America, incorporating the latest advances in ornithological research.

**BEHIND THE DOORS:** Science Museum Makers—Margery Facklam—Rand McNally, 1968, 143 p., photographs, \$4.50. Tells about museum suppliers, taxidermy, scientific artists and technicians

working together to make up a natural history museum.

**BIRD NAVIGATION**—G. V. T. Matthews.—Cambridge Univ. Press, 1968, 2nd ed., 197 p., illus., \$7; paper, \$2.45. Completely rewritten to present a review of developments in the field, including some 350 post-1954 titles.

**BRAIN PUZZLER'S DELIGHT**—E. R. Emmet—Emerson Bks., 1968, 254 p., diagrams, \$4.95. Emphasis is on reasoning and not on specialized mathematical knowledge in these more than 100 gradually more difficult puzzles.

**BRIDGES, CANALS & TUNNELS**—David Jacobs and Anthony E. Neville; Robert M. Vogel, Consult.—Am. Heritage/Smithsonian Inst. (Van Nostrand), 1968, 160 p., color plates, photographs, drawings, \$4.95. Shows the story of U.S. continental conquest through the feats of civil engineering.

**THE BRONX ZOO BOOK OF WILD ANIMALS:** A Guide to Mammals, Birds, Reptiles and Amphibians of the World—William Bridges—New York Zoological Society (Golden Press), 1968, 304 p., color plates, 252 photographs, \$5.95. Tells about 2,106 of the world's representative and particularly interesting animals and their habits.

**CAPTIVE WILD**—Lois Crisler—Harper, 1968, 238 p., photographs, \$5.95. Story of the author's attempt to raise orphaned wolf cubs together with a pack of wolf-dogs for company, and her observations of wild animal behavior during seven years of close association.

**A CEREMONIAL OX OF INDIA:** The Mithan in Nature, Culture and History, with Notes on the Domestication of Common Cattle—Frederick J. Simoons with Elizabeth Simoons—Univ. of Wis. Press, 1968, 323 p., photographs, illus., maps, \$11. Detailed study by cultural geographer of one of the most prized possessions of the peoples inhabiting the region between the lower Eastern Himalayas and Burma.

**DIARY OF A HEART PATIENT,** Twice Operated on by Dr. DeBakey, a Patient Tells of His Experience—Yehuda Kesten—McGraw-Hill, 1968, 272 p., \$7.95. Diagnosed as a case of Marfan's Syndrome, journalist describes his recovery with the help of open-heart surgery.

**DICTIONARY OF BUSINESS & SCIENTIFIC TERMS**—David F. Tver—Gulf Publishing Co., 1968, 2nd ed., 528 p., \$15. Compact source of more than 12,000 of the most used professional and scientific terms in business and industry.

**THE DOCTORS WARREN OF BOSTON:** First Family of Surgery—Rhoda Truax—Houghton, 1968, 369 p., \$7.95. The story of six generations of surgeons who helped make medical history in Massachusetts.

**FOLK SONG STYLE AND CULTURE**—Alan Lomax with contributions by the Cantometrics Staff; Edwin Erickson, Ed.—AAAS, 1968, 384 p., diagrams, maps, \$14.50. Comparative study from the world's range of song qualities, developing profiles of song ratings which could be coded and analyzed ethnographically, computerized in cross-cultural data banks, and produce correlations between style and social structure.

**INSIDE THE ORBIT OF THE EARTH**—Willy Ley—McGraw-Hill, 1968, 159 p., illus. by Rino Dussi, \$4.50. Describes the planets Mercury and Venus in terms of astronomical history, from Kepler's observations to present measurements by radar.

**JBS:** The Life and Work of J.B.S. Haldane—Ronald W. Clark—Coward-McCann, 1968, 326 p., photographs, \$6.95. Lively biography of the brilliant biochemist and geneticist, famous for his work on the mathematical theory of natural selection, a diversified and eccentric genius, also involved in the political issues of his time.

**LIVES OF SOCIAL INSECTS**—Peggy Pickering Larson and Mervin W. Larson—World Pub. Co., 1968, 226 p., photographs, \$6.50. Entomologist's readable account of bees, wasps, termites and ants, and how they set up their societies.

**MAN-IN-ORGANIZATION: Essays**—F. J. Roethlisberger—Harvard Univ. Press, 1968, 322 p., \$7.95. Essays written between 1928 and 1968, combine the insight of the business practitioner with that of the social scientist, trying to define the role of the administrator in the modern society.

## AUTHORS WANTED BY NEW YORK PUBLISHER

Your book can be published, promoted, distributed by a reliable company on a subsidized basis. Fiction, non-fiction, poetry, scholarly, scientific and even controversial manuscripts welcomed. For Free Booklet write Vantage Press, Dept. T8, 120 W. 31 St., New York 10001.

**MANAGING WATER QUALITY:** Economics, Technology, Institutions—Allen V. Kneese and Blair T. Bower—Johns Hopkins Press, 1968, 328 p., diagrams, \$8.95. Analyzes the essential facts of the present situation and future outlook, from engineering and institutional practices and research progress, and underscores the shortcomings of conventional approaches.

**MAN'S RISE TO CIVILIZATION AS SHOWN BY THE INDIANS OF NORTH AMERICA FROM PRIMEVAL TIMES TO THE COMING OF THE INDUSTRIAL STATE**—Peter Farb—Dutton, 1968, 332 p., photographs, maps, \$8.95. Concerned with the native North American cultures and their evolution, the author presents ten American Indian societies in order of their social complexity.

**A MARRIAGE MANUAL**—Drs. Hannah and Abraham Stone; rev. by Drs. Gloria Stone Aitken and Aquiles J. Sobrero—Simon & Schuster, rev. ed., 1968, 316 p., \$6.50. A modern guide to sex and marriage, family planning and health in marriage.

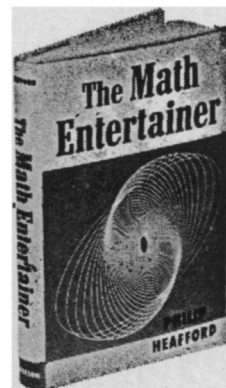
**THE METROPOLITAN ENIGMA:** Inquiries into the Nature and Dimensions of America's "Urban Crisis"—James Q. Wilson—Harvard Univ. Press, 1968, 392 p., illus., \$7.75. Expanded version of Task Force papers by independent scholars. Topics discussed range widely over the whole area of urban issues, from jobs, pollution and crime to schools and transportation.

**OIL AND WATER:** The Torrey Canyon Disaster—Edward Cowan—Lippincott, 1968, 241 p., photographs, maps, \$6.95. Reconstructs the events, the personalities involved, their decisions, and the consequences to natural life on both sides of the English Channel, viewing the whole against the complexities of international commerce.

**PARTICLES AND FIELDS**—David Lurie—Interscience, 1968, 506 p., \$15. Presents the essentials of quantum theory of fields, with emphasis on relativistic quantum field theory oriented toward elementary particle physics, including full treatment of bound states and of the functional method.

**THE PEOPLE SPECIALISTS:** An Examination of Realities and Fantasies in the Corporation's View of People, and the Plain and Fancy Specialists that Arise Therefrom—Stanley M. Herman—Knopf, 1968, 329 p., \$6.95. An analysis of the sources and history of the personnel function and its relationship to the organization, with critical assessment of methods and results.

## GAMES MATH BUFFS PLAY—



**THE MATH ENTERTAINER** is the title of a brand new treasure trove of mathematical teasers, ticklers, traps and twisters, gems, jests and gyrations—by the hundreds!—to beguile, bemuse, and bewilder (perchance—whisper softly!—to instruct).

Includes: Math history, symbols, circles, triangles, measures, moneys, series, permutations, abbreviations, roots and powers, math instruments, ratios, arrangements, fractions, shapes, "limerick" problems, true-and-false, identifications, logarithms, associations, statistics, calculus "cocktails," crosswords, figures from figures, arches, codes, problems and puzzles, etc., etc. Some of the posers will seem easy, others hard, some will amuse, others exasperate—but none are dull.

Answers and complete explanation are given for all problems. Illustrated **ORDER NOW!**

## THE MATH ENTERTAINER

By Phillip Heafford

\$3.95 Postfree. 10-Day Money Back Guarantee.

EMERSON BOOKS, Inc., Dept. 910-R  
251 West 19th Street, New York 10011

## FREE CATALOGUES OF SCIENCE BOOKS

State your interest! Mathematics, physics, history of science, general science, biology, social sciences, earth sciences, chemistry, languages, philosophy, engineering. Dover publishes over 100 books per year; quality production standards, priced for your budget. Dept. SNL, DOVER, 180 Varick St., New York, N. Y. 10014.

16 november 1968/vol. 94/science news/507