

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.

ADVANCES IN CHEMICAL ENGINEERING, Vol. 3—Thomas B. Drew, John W. Hoopes, Jr. and Theodore Vermeulen, Eds.—*Academic Press*, 345 p., illus., \$12. Papers on crystallization from solution, mixing and agitation, and optimization methods.

ADVANCES IN CRYOGENIC ENGINEERING, Vol. 7—K. D. Timmerhaus, Ed.—*Plenum Press*, 582 p., illus., \$15. Technical papers of 1961 Conference, on space simulation, physical equilibria, fluid and heat transfer phenomena, and equipment.

AFTER A HUNDRED YEARS: The Yearbook of Agriculture 1962—Alfred Stefferud, Ed.—*USDA (GPO)*, 704 p., 706 photographs, \$3. Centennial yearbook describes developments in plant and animal breeding, insect control, conservation, marketing, rural life and technology.

ALKYD RESIN TECHNOLOGY: Formulating Techniques and Allied Calculations—T. C. Patton—*Interscience*, 197 p., \$9.75. To enable the modern paint chemist to formulate paints in accordance with scientific principles.

BIOGRAPHICAL MEMOIRS, Vol. XXXVI—National Academy of Sciences—*Columbia Univ. Press*, 336 p., illus., \$5. Biographies of recently deceased members of the Academy.

COMPUTER ARITHMETIC—Henry Jacobowitz—*Rider, J. F.*, 120 p., paper, \$3. Refresher course in binary and other arithmetics.

DEVELOPMENTS IN INDUSTRIAL MICROBIOLOGY, Vol. 3—Chester F. Koda, Ed.—*Plenum Press*, 398 p., illus., \$13.50. Proceedings include papers on microbiological applications for space vehicles and extraterrestrial stations.

DIFFERENTIAL EQUATIONS—C. W. Leininger—*Harper*, 271 p., \$6. Written for the student whose preparation is limited to a beginning course in engineering calculus.

THE EFFECTS OF NUCLEAR WEAPONS—Samuel Glasstone, Ed.—*AEC (GPO)*, rev. ed., 730 p., illus., paper, \$3. Prepared by the Defense Atomic Support Agency of the Department of Defense, with conclusions representing the combined judgment of competent scientists.

THE ELECTRONIC THEORY OF ACIDS AND BASES—W. F. Luder and Saverio Zuffanti—*Dover*, 2nd rev. ed., 165 p., charts, paper, \$1.50. Book correlates theory with many phases of chemistry.

ELEMENTARY AND ADVANCED TRIGONOMETRY—Kenneth S. Miller and John B. Walsh—*Harper*, 350 p., diagrams, \$5.75. Gives modern approach to classical trigonometry and introduces exceptional student to advanced topics.

ENVIRONMENTAL EFFECTS ON CONSCIOUSNESS—Karl E. Schaefer, Ed.—*Macmillan*, 146 p., illus., \$5.50. Expert discussion of research on aspects of physiology and psychology under emergency conditions in submarines and space.

EXPERIMENTAL FOUNDATIONS OF CLINICAL PSYCHOLOGY—Arthur J. Bachrach, Ed.—*Basic Bks*, 641 p., \$10. Summarizes the present state of experimental progress in areas of clinical research concerned with learning and communication, behavior modification and psychotherapy.

EXPERIMENTAL TRANSPLANTATION OF VITAL ORGANS—V. P. Demikhov, transl. from Russian by Basil Haigh—*Consultants*, 285 p., illus., \$12.50. Survey of author's experimental work in complicated organ grafting operations, and his views on the still unsolved problem of tissue incompatibility.

RAPID CALCULATIONS

by A. H. Russell

CAN YOU —

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 - Give the cube root of 42508549 . . .
 - Tell how long it takes for money to double itself at 5% compounded annually . . .
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FIELD GUIDE TO WESTERN BIRD SONGS—Peter Paul Kellogg and William W. H. Gunn, Eds.—*Houghton*, 3 long-playing 33-1/3 rpm records, album, \$12.50. Songs and calls of land and water birds recorded in the field, arranged to accompany, page by page, Roger Tory Peterson's Field Guide to Western Birds, 2nd edition.

A FIELD GUIDE TO WESTERN BIRDS—Roger Tory Peterson—*Houghton*, rev. 2nd ed., 366 p., illus. by author, \$4.95. Field marks of more than 700 species found in North America west of the 100th meridian, with a section on the birds of the Hawaiian Islands.

FUNCTIONS OF A COMPLEX VARIABLE AND SOME OF THEIR APPLICATIONS, Vol. II—B. A. Fuchs and V. I. Levin, transl. from Russian by J. Berry, T. Kovari, Ed.—*Addison-Wesley*, 286 p., \$7. For engineers.

FUNK & WAGNALLS NEW STANDARD ENCYCLOPEDIA YEARBOOK 1962: Events of 1961—Drenka Willen and Virginia Carew, Eds.—*Funk*, 374 p., illus., \$3. Includes advances in science and technology.

GLADIOLI AND THE MINIATURES—Roy Genders—*St Martins*, 144 p., illus., color photographs, \$4.95. Instructions for cultivation and detailed description of modern varieties.

GREAT SMOKY MOUNTAINS WILDFLOWERS—Carlos C. Campbell and others—*Univ. of Tenn. Press*, 40 p., 55 color photographs, \$1. Botanically accurate guide for the layman.

HER GARDEN WAS HER DELIGHT—Buckner Hollingsworth—*Macmillan*, 166 p., \$4. Biographical sketches of famous women gardeners who contributed to the fields of botany and plant research.

HURRICANE FIGHTERS—Pauline B. Innis and Joseph Archibald—*McKay*, 214 p., \$3.50. Weaves technical and historical facts into a story about weather reconnaissance flying, for the young.

INTERNATIONAL DICTIONARY IN 21 LANGUAGES—H. L. Ouseg—*Philosophical Lib.*, 364 p., \$10. Polyglot dictionary of 1170 everyday words and phrases in 21 European languages, both east and west.

ISLAND—Aldous Huxley—*Harper*, 335 p., \$5. A novel about an ideal society that uses science to advance its goal of freeing the individual through heightened consciousness rather than contentment.

LUNAR EXPLORATION AND SPACECRAFT SYSTEMS—Ross Fleisig, Edward A. Hine and George J. Clark, Eds.—*Plenum Press*, 211 p., illus., \$10. Proceedings of 1960 Symposium on Lunar Flight. Papers ranging from scientific objectives of lunar exploration to designs for sensors for soft lunar landings.

MAN'S DEPENDENCE ON THE EARTHLY ATMOSPHERE—Karl E. Schaefer, Ed.—*Macmillan*, 416 p., illus., \$14.50. Comprehensive account of environmental physiology based on recent experiments reported at first International Symposium on Submarine and Space Medicine.

MATHEMATICAL FUN, GAMES AND PUZZLES—Jack Frohlichstein—*Dover*, 306 p., diagrams, paper, \$1.75. A new work, not a reprint, written for the upper elementary mathematics level, for junior high school and family fun.

MINIATURE CHRYSANTHEMUMS AND KOREANS—Roy Genders—*St Martins*, 100 p., illus., color photographs, \$4.50. Outlines history, cultivation and propagation of dwarf varieties.

• Science News Letter, 81-316 May 19, 1962

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