

Books of the Week

Listing is for readers' information, not advertising. For convenient purchase of any book listed or any U.S. book in print, remit retail price (we pay postage) plus 25¢ handling charge if price is less than \$2 to Book Department, Science Service, 1719 N St., N.W., Washington, D. C. 20036.

AVIATION WEATHER: For Pilots and Flight Operations Personnel—William P. Nash and others—GPO, 308 p., illus., paper, \$2.25. Joint publication of FAA's Flight Standards Service and the U.S. Weather Bureau, supersedes Technical Manual No. 104.

CHARLES DARWIN AND HIS WORLD—Julian Huxley and H.B.D. Kettlewell—Viking Press, 144 p., 128 illus., \$6.50. Biologist and geneticist combine their unusual insight in this fine life study of Darwin and his ideas.

CHEMISTRY AND BIOCHEMISTRY OF PLANT PIGMENTS—T. W. Goodwin, Ed.—Academic Press, 583 p., diagrams, \$18.50. Deals with chemistry and biosynthesis of the various plant pigments, their function and metabolism, and the analytical procedures used in dealing with plant pigments.

CRYSTAL MAGIC—Eugene David—Prentice-Hall, unpag., illus. by Abner Graboff, \$3.50. Designed for the nursery school age.

EARLY MAN—F. Clark Howell and the Editors of LIFE—Time, Inc., 200 p., illus. (72 pp. in full color), \$3.95 direct to Time-Life Bks., 540 N. Mich. Ave., Chicago, Ill. Paleanthropologist presents and interprets data from the fossil evidence of man's development in the various parts of the world.

EDUCATIONAL TESTING SERVICE: Annual Report 1963-1964—Henry Chauncey, Pres.—Educ. Testing Service, 171 p., photographs, paper, single copies free upon request from publisher, Princeton, N.J. 08540. Discusses testing today in the light of progress made during the last two decades, and summarizes ETS developments during 1963-1964.

FRESH WATER FISHING: Your Questions Answered—Anthony Britowe—Taplinger, 270 p., illus. by J. G. Mills, \$5.95. For the rod and line angler who fishes for sport.

GALILEO AND THE SCIENTIFIC REVOLUTION—Laura Fermi and Gilberto Bernardini—Fawcett, 128 p., illus., paper, 60¢. Reprint (1961).

THE HAAR INTEGRAL—Leopoldo Nachbin, transl. from Portuguese by Lulu Bechtolsheim—Van Nostrand, 156 p., \$2.50. To serve as an introduction to Bourbaki's integration method.

THE HORMONE QUEST—Albert Q. Maisel—Random House, 262 p., \$5. Historical narrative of the research and development of the natural and synthetic hormones that have resulted in the oral contraceptive, and effective therapies against diseases.

HOW TO READ STATISTICS—I. R. Vesselo—Van Nostrand, 208 p., \$3.50. Presents for the layman the elements of statistical method in such a manner as to induce a critical attitude towards the conclusions drawn from numerical and graphical data.

HUMAN PERFORMANCE IN INDUSTRY—K. F. H. Murrell—Reinhold, 496 p., illus., \$13.25. A thorough treatment of the design of equipment and adaptation of work systems to fit the capabilities of industrial employees.

HUMIDITY AND MOISTURE: Measurement and Control in Science and Industry, Vol. 4: Principles and Methods of Measuring Moisture in Liquids and Solids—Paul N. Winn, Jr., Ed.—Reinhold, 333 p., illus., \$20. Technical papers covering the subject of moisture measurement, and interaction of moisture and materials.

AN INDEX OF HEALTH: Mathematical Models—C. L. Chiang—PHS (GPO), 19 p., paper, 25¢. Mathematical models of the distribution of illness episodes, of illness duration, and of mortality in a population.

AN INDEX OF RESPONSES TO THE GROUP RORSCHACH TEST: Studies on the Psychological Characteristics of Medical Students, II—Caroline Bedell Thomas, Donald C. Ross and Ellen S. Freed—Johns Hopkins Press, 502 p., illus., \$15. A tabulated profile of responses given by Johns Hopkins medical students tested between 1957 and 1961.

INTERMEDIATE EDUCATION: Changing Dimensions—Frances Minor and others; Evelyn Weber, Ed.—Assn. for Childhood Educ. Int'l., 80 p., photographs, paper, \$1.25. Suggestions for improving the quality of education for those who guide children from the age of nine to twelve.

INTERNATIONAL COOPERATION IN SPACE—Arnold W. Frutkin—Prentice-Hall, 186 p., \$4.95. Authoritatively presents the U.S. program for cooperative satellite and sounding rocket projects, reviews the state of cooperation with the Soviet Union, and analyzes factors affecting future cooperation.

THE LONG ROAD TO MAN—Robert L. Lehrman—Fawcett, 160 p., illus., paper, 60¢. Reprint (1961).

MAN, NATURE AND DISEASE—Richard Fiennes—New Am. Lib., 268 p., illus., paper, 75¢. Pathologist discusses epidemics, parasitic diseases,

leprosy, malaria and sleeping sickness, and the future of disease in man-made environments.

MANAGERS: Personality and Performance—Kenn Rogers—Educational Methods (Aldine Pub. Co.), 184 p., diagrams, \$5.95. An analytical discussion of the factors in top management that affect an organization's results.

MICROBIOLOGY LABORATORY MANUAL AND WORKBOOK—Alice Lorraine Smith—Mosby, 147 p., illus., paper, \$3.25. Laboratory exercises designed to cover a broad range of microbiological subjects.

MORPHOLOGIC ENCYCLOPEDIA OF PALYNOLOGY—Gerhard O. W. Kremp—Univ. of Ariz. Press, 186 p., 38 plates, \$15. An international collection of definitions and illustrations of spores and pollen, to serve scholars in palynology as a standard text on questions of spore morphology.

NASA, 20TH CENTURY EXPLORER INTO THE SEA OF SPACE: Guide to Careers in Aerospace Technology—NASA (GPO), 50 p., illus., paper, 75¢. Describes current projects and includes U.S. Civil Service Commission information on job opportunities.

THE NEW GOLDEN BOOK OF ASTRONOMY: An Introduction to the Wonders of Space—Rose Wylar and Gerald Ames, foreword by Donald H. Menzel, Ed.—Golden Press, 104 p., illus., \$3.95. Tells boys and girls about the many wonders of the heavens and how astronomers today are adding to the knowledge of the sky watchers of the past.

OPTICAL MASERS: Advances in Electronics and Electron Physics, Supplement 2—George Birnbaum—Academic Press, 306 p., illus., \$9.50. Emphasizes physical principles and attempts to treat the diverse aspects of maser theory in an integrated way.

PRELUDE TO MARS—Arthur C. Clarke—Harcourt, 497 p., \$4.95. Fiction written by astronomer, 16 short stories and two novels.

PRINCIPLES OF PHYSICAL GEOLOGY—Arthur Holmes—Ronald Press, rev. ed., 1288 p., photographs, diagrams, \$12. Fully revised and copiously illustrated authoritative treatment of earth science.

PRINCIPLES OF STRUCTURAL GLACIOLOGY: The Topography of Fresh-Water Ice as a Method of Glaciological Investigation—P. A. Shumskii, transl. from Russian by David Kraus—Dover, 497 p., illus., paper, \$3. Extensively revised version of translation prepared through 1957-1961.

PROBLEMS IN HIGHER ALGEBRA—D. K. Faddeev and I. S. Sominski, transl. from Russian by J. L. Brenner—Freeman, 498 p., paper, \$3.95. Selection of problems in complex numbers, computation of determinants, systems of linear equations, and symmetric functions.

PROBLEMS OF ENGINEERING PSYCHOLOGY—B. F. Lomov, Ed., transl. from Russian—NASA (Clearinghouse), 143 p., paper, \$5. Conference papers (Leningrad, 1964), covering topics ranging from self-organizing systems to machine simulation of intellectual operations.

PROCEEDINGS OF THE 1965 HEAT TRANSFER AND FLUID MECHANICS INSTITUTE held at the University of California, L.A., June 1965—Andrew F. Charwat, Ed.—Stanford Univ. Press, 372 p., illus., \$10. Lectures, abstracts and bibliographies on current fundamental research in the field.

RADIOCHEMICAL METHODS OF ANALYSIS, Vols. 1 and 2: Proceedings of Symposium held by the International Atomic Energy Agency at Salzburg, 1954—G. de Hevesy and others—IAEA (Internat'l Publications, N.Y.), 432 p., 522 p., diagrams, paper, \$9, \$11. Papers on reactor activation analysis, use of radioactive sources and use of accelerators.

REFLEXES OF THE BRAIN—I. Sechenov, ed. by K. Koshtoyants, transl. from Russian by S. Belsky—M.I.T. Press, 149 p., illus., paper, \$1.95. Originally published more than 100 years ago.

SCHAUM'S OUTLINE OF THEORY AND PROBLEMS OF GENERAL TOPOLOGY—Seymour Lipschutz—Schaum Pub. Co., 239 p., diagrams, paper, \$3.50. Includes 650 solved problems.

SCIENCE BOOKS: A Quarterly Review, Vol. 1, No. 1—Hilary J. Deason, Ed.—A.A.A.S., 56 p., paper, \$1.25 quarterly, \$4.50 per year. Short evaluations of new publications for the general reader and young people by reviewers from specialized fields of science.

SCIENTIFIC AND TECHNICAL MANPOWER RESOURCES: Summary Information on Employment, Characteristics, Supply and Training—Office of Economic and Manpower Studies—NSF (GPO), 184 p., paper, \$1.25. A sourcebook of detailed information on characteristics and education of the nation's scientists, engineers and technicians.

THE SCIENTIFIC COMMUNITY—Warren O. Hagstrom—Basio Bks., 304 p., \$5.50. Concerned

with the sociological aspects of research, such as teamwork, competition for recognition, segmentation and disputes among scientists.

A SHORT HISTORY OF MACHINE TOOLS—L. T. C. Rolt—M.I.T. Press, 256 p., 103 plates and illus., \$7.50. The development of machine tool technology, from the first lathe-boring machine to today's electronic-tape-controlled machines.

SOUND AND HEARING—Charles Gramet—Abelard-Schuman, 191 p., illus. by Leslie Haywood, photographs, \$4. Explains to young people the nature of sound waves, principles behind the production of sound, sounds of music, and communication by sound.

SPACE SCIENCE AND ENGINEERING—Ernst Stuhlinger and Gustav Mesmer, Eds.—McGraw, 457 p., illus., \$20. One of the first comprehensive courses on astronautics, based on series of lectures presented by space research specialists to graduate students.

SPACE TECHNOLOGY, Vol. 1: Spacecraft Systems—L. H. Abraham—NASA (GPO), 85 p., illus., 35¢. First of a new series of publications prepared as notes for a course at Caltech in cooperation with the Jet Propulsion Laboratory.

SPECTROSCOPIC TECHNIQUES IN ORGANIC CHEMISTRY—A. J. Baker and T. Cairns—Heyden & Son (London), 87 p., illus., paper, \$3.50. Provides grounding in modern research techniques in the four branches of spectroscopy.

THE STUDY OF ANTHROPOLOGY—Pertti J. Peltó, Raymond H. Muessig and Vincent R. Rogers—Merrill Bks., 118 p., \$3.95; paper, \$1.75. Includes chapter suggesting methods for elementary and secondary teachers.

SYMPOSIUM ON NEWER STRUCTURAL MATERIALS FOR AEROSPACE VEHICLES—R. B. Clapper, Chmn.—Am. Soc. for Testing Materials, 118 p., illus., \$6. Deals with a variety of potentially important space materials, such as beryllium-aluminum wrought alloys, fused silica, and thermal-structural composites.

THE TIME OF THE PUFFINS—Marie Puccinelli—Bobbs, unpag., illus. by John Kaufmann, \$2.75. For young children.

UNIVERSITY PHYSICS: Experiment and Theory—George D. Freier—Appleton, 593 p., illus., \$10. This text features a collection of simple demonstrations set into a rigorous theoretical development of the subject matter of physics.

THE URBAN NATION 1920-1960—George E. Mowry—Hill & Wang, 278 p., maps, \$5. Puts in perspective the events and developments that changed the U.S. from an essentially small-town agricultural nation into the urban society of today.

THE USE OF A TECHNICAL LIBRARY—Rodney K. Waldron—Ore. State Engineering Experiment Station, 25 p., illus., paper, 35¢ direct to the publisher, Corvallis, Ore. Describes the science and technology division facilities and services in the university open-access library of approximately 500,000 volumes.

YOUR GUIDE TO PHOTOGRAPHY—Helen Finn Bruce—Barnes & Noble, 311 p., photographs, diagrams, \$4.50; paper, \$1.95. A complete handbook and practical teaching aid.

WHY DO CHEMICAL REACTIONS OCCUR?—J. Arthur Campbell—Prentice-Hall, 117 p., illus., \$4.50; paper, \$1.50. Monograph deals at the advanced high-school student level with the concept of increasing randomness or entropy, the making and breaking of chemical bonds, rate and equilibrium.

• Science News Letter, 88:12 July 3, 1965

Do You Know?

The presence of *foraminifera*, microscopic one-celled sea animals, is often a clue to underwater oil deposits.

Low temperature *freezing* with liquid nitrogen is being used on tomatoes, avocados, melons and papayas, fruits and vegetables which previously were difficult to freeze satisfactorily.

The rarest and most expensive zoo animal in the world is the giant *panda*.

Slanting, a technique in which certain architectural and engineering features are incorporated into new structures, can help protect personnel from fallout gamma radiation.

• Science News Letter, 88:12 July 3, 1965