

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.

ABOUT MICE AND MEN: An introduction to Advanced Biology—Frederick R. Avis, foreword by Hudson Hoagland—Walch, J. Weston, new enlarged ed., 216 p., illus., \$3. Laboratory manual, describes biological investigations of the mouse, experiments of muscle-nerve physiology and aspects of biochemistry, a resource for independent science projects.

ANIMAL SCIENCE AND INDUSTRY—Duane Acker—Prentice-Hall, 502 p., illus., \$10.35. Designed for an introductory animal science course.

THE BOOK OF THE NOTTINGHAM INTERNATIONAL CHESS TOURNAMENT, 10th to 28th August, 1936—Annotations and analysis by A. Alekhine; W. H. Watts, Ed.—Dover, 291 p., illus., paper, \$1.85. Reprint (1937).

THE CHALLENGE OF PASSING YEARS: My Encounter with Time—R. M. MacIver—Simon & Schuster, 133 p., \$3.95. Social scientist considers the problem for modern man of achieving freedom under the pressure of time.

CHEMISTRY FOR THE APPLIED SCIENCES—Katherine Blood Hoffman—Prentice-Hall, 429 p., diagrams, \$6.95. Presents fundamental chemical background to the reactions that occur in living cells, teaches types of bonding and their influence on chemical and physical properties.

CHESS FOR FUN & CHESS FOR BLOOD—Edward Lasker—Dover, 224 p., illus. by Maximilian Mopp, paper, \$1.25. Reprint (1942).

CONQUEST: A Book About Scientists, Their Inquiries and Achievements—David Alman—Doubleday, 179 p., photographs, \$4.95. For young people, describes in word and picture famous experiments and ways of research, and suggests some related experiments for the reader to try.

EAT & DRINK, LOWER YOUR CHOLESTEROL—Frederick T. Zugibe—McGraw, 208 p., \$4.95. A practical guide for choosing and preparing food less likely to contribute to progressive arterial disease.

THE ESSENCE OF BEAUTY: A History of Scent—Aytoun Ellis—Collier, rev. ed., 192 p., paper, 95¢. Tells the story of fragrances and cosmetics from the ancient days of Egypt and Judea to the present.

FRONTIERS OF DENTAL SCIENCE—George C. Paffenbarger and Sholom Pearlman, Eds.; activities by Walter R. Brown—NSTA, 160 p., illus., paper, 50¢ direct to Scholastic Book Services, 904 Sylvan Ave., Englewood Cliffs, N. J. Produced in cooperation with the American Dental Assn., designed as enrichment science reading at high school level.

THE GENETIC CODE—Isaac Asimov—New Am. Lib., 187 p., diagrams, paper, 60¢. Original paperback, points out the possibilities now open to science through the discovery of DNA.

THE HASTINGS CHESS TOURNAMENT 1895—Horace F. Cheshire, Ed.—Dover, 370 p., illus., paper, \$2. Reprint (1896). Authorized account of the 230 games with annotations and biographical sketches of the chess masters.

HERE IS YOUR HOBBY: Science Equipment—William Moore—Putnam, 127 p., photographs, \$2.50. Outlines and pictures the assembly of basic home-made science aids, such as box trap, naturalist's

dredge, microtome, optical bench, simple seismograph and many more.

THE LAPLACE TRANSFORM: An Introduction—Earl D. Rainville—Macmillan, 106 p., paper, \$2.50. Can be used as supplementary text in elementary differential equations.

LIGHT HORSES—M. E. Ensminger and others—USDA (GPO), rev. ed., 56 p., illus., paper, 20¢. Information about selecting, breeding, feeding and managing horses.

MEDICAL AND CLINICAL ASPECTS OF AGING—Herman T. Blumenthal, Ed.—Columbia Univ. Press, 690 p., illus., \$12. Summarizes research in the degenerative diseases, under group headings such as endocrinology, metabolism and exercise, psychiatry, respiratory and skeletal systems, peripheral vascular system and atherosclerosis.

MICROAEROSOLS: Physiology, Pharmacology, Therapeutics—Lucien Dautrebande—Academic Press, 366 p., illus., \$13.50. Summarizes experimental and technical data, with emphasis on production, sampling, measurement and biological importance of air-borne submicroscopic particles.

MINERALS YEARBOOK 1961. Vol. I: Metals and Minerals (Except Fuels). Vol. II: Fuels. Vol. III: Area Reports—Bureau of Mines, U.S. Dept. of Interior—GPO, 1417 p., 498 p., 1173 p., \$4.75, \$2.50, \$4.25. This annual sourcebook provides record of performance of the nation's mineral industries, with enough background information to interpret the year's developments.

THE MODERN PREDICAMENT: A Study in the Philosophy of Religion—H. J. Paton—Collier, 414 p., paper, \$1.50. Reprint (1955). Philosopher appraises religion in the light of present-day scientific knowledge, from the intuitive, the speculative and the critical approach.

MY LIFE WITH THE ESKIMO—Vilhjalmur Stefansson—Collier, 447 p., paper, \$1.50. Reprint (1913) of classic account of the longest Arctic expedition on record.

NATIONAL SCIENCE FOUNDATION: Twelfth Annual Report for the Fiscal Year Ended June 30, 1962—Alan T. Waterman, Dir.—NSF (GPO), 368 p., photographs, \$1.50. Discusses program activities supported by NSF in research, education and dissemination of scientific information.

OLD WINE, NEW BOTTLES: A Humanist Teacher at Work—Moses Hadas—Simon & Schuster, 137 p., \$3.95. An eloquent plea for the continuance of classical education in an age of science and technology.

PROCEEDINGS OF THE NASA-UNIVERSITY CONFERENCE ON THE SCIENCE AND TECHNOLOGY OF SPACE EXPLORATION, Vols. 1 and 2—Homer E. Newell and others—NASA (GPO), 429 p., 532 p., illus., paper, \$2.50, \$3. Papers presented at conference designed to orient universities about the scope and significance of the research connected with the national space program.

PRODUCING, HARVESTING AND MARKETING HIGH QUALITY SOUTHERN TIMBER—William C. Hopkins, Ed.—La. State Univ. Press, 107 p., \$4. This 11th Annual Forestry Symposium considered quality improvement, the costs of harvesting and ways of logging.

PROPOSAL FOR AN INTERNATIONAL INSTITUTE OF SCIENCE AND TECHNOLOGY: Report of Working Group appointed by NATO—James R. Killian Jr. and others—NAS-NRC, 57 p., paper, single copies free upon request direct to Mr. George Wood, National Academy of Sciences, 2101 Constitution Ave., N.W., Washington 25, D. C. Report recommends independent, degree-granting Institute, comprising five interdisciplinary centers and Center for Advanced Study.

PROVING GROUND: An Account of the Radiobiological Studies in the Pacific, 1946-1961—Neal O. Hines—Univ. of Wash. Press, 366 p., photographs, maps, \$6.75. An interim report on the search for the biological effects of radioactive fallout in the Pacific as recorded by the Laboratory of Radiation Biology.

THE RELATIVES OF MAN: Modern Studies of the Relation of the Evolution of Nonhuman Primates to Human Evolution—J. Buettner-Janusch, Ed.—N. Y. Acad. of Sciences, Annals, Vol. 102, Art. 2, 333 p., illus., paper, \$4. Papers and discussion of diverse studies on primate species, ranging from observations on the skin of lemurs to trends in primate taxonomy.

RESEARCH HIGHLIGHTS OF THE NATIONAL BUREAU OF STANDARDS, 1962: Annual Report, Fiscal Year 1962—A. V. Astin, Dir.—NBS (GPO), 217 p., illus., paper, 70¢.

STUDIES OF ALASKA RED SALMON—Ted S. Y. Koo, Ed.—Univ. of Wash. Press, 469 p., illus., \$8.50. Findings of a large scale investigation

into the various phases of the life history of the red (sockeye) salmon in Alaska.

A STUDY OF FIRE PROBLEMS—Committee on Fire Research—Nat. Acad. of Sciences-Nat. Res. Council, 174 p., diagrams, paper, \$2. A study of general and economic aspects of fire, and research on fire-fighting and prevention problems.

SUN, MOON AND PLANETS—Roy K. Marshall—Collier, rev. ed., 126 p., diagrams, paper, 95¢. To answer the questions of planetarium visitors and others interested in the solar system.

TELEVISION TAPE FUNDAMENTALS—Harold E. Ennes—Sams, 256 p., illus., ringbound, \$5.95. Practical handbook, covers fundamentals, primary functions and maintenance of video-tape equipment.

TO THE MOUNTAINS OF THE STARS—L. D. Brongersma and G. F. Venema, transl. from Dutch by Alan G. Readett—Doubleday, 318 p., 48 plates, maps, \$5.95. Abundantly illustrated story of the Dutch expedition exploring one of the last uncharted areas of the world, Central Dutch New Guinea, where the Papuan tribes still live in Stone Age conditions.

WORLD-WIDE SUMMER REPLACEMENT DIRECTORY, 1963—Beth Verasen, Ed.—Advancement & Placement Institute, 66 p., illus., paper, \$4. Annual compilation of summer jobs and study awards available to teachers and college students, listed by country and states.

YOUR WEIGHT AND HOW TO CONTROL IT—Morris Fishbein, Ed.—Doubleday, rev. ed., 206 p., \$3.95. Condensed, yet comprehensive discussion of fads, normal weight, the possible causes of overweight, food habits, obesity in children, psychosomatic aspects and how to reduce scientifically.

• Science News Letter, 83:76 February 2, 1963

SANITARY ENGINEERING

Refuse Increases While Dump Areas Decrease

► THE WORLD'S explosion of population is creating more garbage and refuse that will require more and larger incinerators in the future, the American Society of Mechanical Engineers was told in New York by Viggo Westergaard and Harold G. Meissner of New York and William T. Clark, Philadelphia.

In the newer incinerators mechanical grates instead of ones that are stationary are used while instruments, automation and control of the burning process is being engineered to meet the situation of the future. No longer in the future will it be possible to dump refuse into areas suitable for sanitary land fill.

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Do You Know?

Meat *toughness* is often caused by two connective-tissue proteins, collagen and elastin.

Algae are useful as detectors of toxic materials in water.

Man's *cell growth* may be affected by magnetic fields created by ion-propulsion systems in space vehicles.

The world's first atomic *explosion* occurred on a New Mexico desert, July 16, 1945.

Speech and hearing *defects* can be detected in children as young as eight months by mothers' observation as well as elaborate medical equipment.

Optical *masers*, sources of high intensity electromagnetic radiation, may be used in painless treatment of eye retinal burns and coagulations for retinal tear ducts.

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SCIENCE PROJECT MATERIALS

Experiments in VACUUMS

Vacuum System Kit—Learn how to convert a refrigerator compressor into a high quality vacuum pump. KEY materials—find an old refriger., get the compressor. We provide all the other parts PLUS explicit directions. You can do it! \$5.00. • Bell Jar Kit—Glass bell jar, base plate, and accessories. Low-cost, high-vacuum system. \$24.50 • McCleod gauges. Diffusion pumps at low prices. Write for "Experiments in Electrostatics" \$5.00. . . Write for free catalog and other low priced Science equipment. Enclose 10¢ for postage.



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