

Books of the Week

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ALFRED WALLACE: Explorer-Naturalist—Joseph Cottler—Little, Brown, 212 p., illus. by John Kaufmann, \$4.50. Juvenile biography, fictionalizing Wallace's expeditions into the then unknown regions of the Amazon and of Borneo.

APPLIED INFRARED SPECTROSCOPY—David N. Kendall, Ed.—Reinhold, 560 p., illus., \$23. Comprehensive coverage of infrared absorption spectroscopy applied to problems arising in the fields of chemistry, physics and biology.

THE ARMOR WITHIN US: The Story of Bone—Joseph Samachson—Rand McNally, 192 p., photographs, \$3.95. Presents to young adults the advances in knowledge about the human skeleton.

AZTECS OF MEXICO: Origin, Rise and Fall of the Aztec Nation—George C. Vaillant, rev. by Suzannah B. Vaillant—Penguin Bks., 363 p., 64 plates, illus., paper, \$2.95. A history of the Indians of the Valley of Mexico and their civilizations, with notes and up-dated bibliography.

BARRON'S HOW TO PREPARE FOR THE STUDENT DRAFT DEFERMENT TEST—Samuel C. Brownstein and Mitchell Weiner—Barron's Educ. Series, 249 p., \$5.95; paper, \$2.95. Focus in this review of material is on the verbal and mathematics areas to be tested in the Selective Service College Qualification Test.

BARRON'S TEEN-AGE SUMMER GUIDE—Meyer Reinhold—Barron's Educ. Series, 3rd. rev. ed., 188 p., photographs, paper, \$2.50. Organized to answer teen-agers' questions about summer travel in the U.S. and abroad, foreign camps, special interest camps, wilderness trips, college campus science training and workshops, community service projects, summer jobs, remedial and enrichment courses.

THE BUG CLUB BOOK: A Handbook for Young Bug Collectors—Gladys Conklin—Holiday House, 96 p., illus. by Girard Goodenow, \$2.95. Tells all about ways children can organize to share together the excitement of observing and learning about insects.

CATALOG OF THE NEUROLOGICAL MUTANTS OF THE MOUSE—Richard L. Sidman, Margaret C. Green and Stanley H. Appel—Harvard Univ. Press, 82 p., paper, \$2. Pulls together widely diffused information on the origin, genetics, clinical characteristics, chemistry and pathology of mutants affecting the nervous system in mice.

A CHIPMUNK LIVES HERE—Irmengarde Eberle—Doubleday, 60 p., photographs, illus. by Matthew Kalmenoff, \$3.25. A nature story to read out loud, to enjoy and learn from with the young listeners.

CLOSING THE GAP IN SOCIAL WORK MANPOWER: Report of the Departmental Task Force on Social Work Education and Manpower—Irvin E. Walker, Chmn.—HEW (GPO), 90 p., illus., paper 55¢. Presents the findings of a three-year study on ways to reduce the manpower shortage in the social welfare programs involving approximately 50 billion dollars annually.

COLLECTING AND PHOTOGRAPHING YOUR MICROZOO—Roy Pinney—World Pub. Co., 64 p., photographs by author, \$3.50. Detailed description for young students on how to discover and study the world of protozoa.

THE EFFECT OF POLYMER SURFACES ON THE COAGULATION OF BLOOD—D. J. Lyman and others—SRI (CFSTI-PB 169 093), 40 p., paper, \$2. Research on the adverse interaction of blood and plastics.

ELECTROSTATIC AND ELECTRIC POTENTIAL ENERGY: A Program by the Chemical Bond Approach Group—M. Daniel Smith, Ed.—Earlham College Press, 51 p., illus., paper, \$1 direct to publisher, Richmond, Indiana 47374. Uses the techniques of programmed instruction, encouraging the student's close attention to detail and individual practice.

GRASSHOPPERS AND LOCUSTS: A Handbook of General Acridology, Vol. 1—Sir Boris Uvarov—Cambridge Univ. Press, 481 p., illus., \$18.50. Published for the Anti-Locust Research Centre, London, this volume presents up-to-date knowledge for entomologists on anatomy, physiology, development, phase polymorphism and introduction to the taxonomy of the Acridoidea family.

GUIDE TO RECORD RETENTION REQUIREMENTS: Revised as of January 1, 1966

—Office of the Federal Register—GPO, multipaged, paper, 40¢. Informs the public on what records to keep for how long for possible Government audit.

HIGH-ENERGY PHYSICS AND ELEMENTARY PARTICLES: Lectures presented at a Seminar, Trieste, 1965, organized by the International Centre for Theoretical Physics—V. de Alfaro and others; Abdus Salam, Dir.—IAEA (Nat. Agency for Int. Pubns.), 1001 p., diagrams, paper, \$15. Subjects discussed range from S-matrix theory to quarks.

HUMAN LEARNING—Edward L. Thorndike—M.I.T. Press, 206 p., illus., paper, \$1.95. Reprint (1931) of collection of pioneering essays on the development of the behaviorist theory of human learning.

HUMAN NATURE IN GEOGRAPHY: Fourteen Papers, 1925-1965—John Kirtland Wright—Harvard Univ. Press, 361 p., illus., \$10. Selections from the life-long work of one of the best known American geographers.

HYDROSPACE: Frontier Beneath the Sea—Jack Coggins—Dodd, 96 p., illus., by author, \$3.50. Introduces young people to various facets of underwater exploration.

THE INDIAN MEDICINE MAN—Robert Hofsinde (Gray-Wolf)—Morrow, 96 p., illus., by author, \$2.95. Describes to young people the training and work of medicine men in six Indian tribes.

LADYBUG—Robert M. McClung—Morrow, 48 p., illus. by author, \$2.95. Acquaints children with the life cycle of a lady beetle.

THE LANGUAGE OF LIFE: An Introduction to the Science of Genetics—George and Muriel Beadle—Doubleday, 242 p., illus., \$5.95. Biochemical genetics explained to the layman, written by Nobelist and wife team, enlivened by examples and analogies, the book imparts the scientist's own attitude toward scientific inquiry and discusses some yet unanswered questions.

THE LAST EAGLE—Dan Mannix—McGraw, 149 p., illus. by Russell Peterson, \$4.95. Fictionalized biography of an American bald eagle.

THE LIFE OF FISHES—N. B. Marshall—World Pub. Co., 402 p., 43 plates, illus., \$12.50. Authoritative and readable survey, stresses the life processes of fishes, the interactions and relationship with their environment in the evolutionary perspective.

MAIZE IN TROPICAL AFRICA—Marvin P. Miracle—Univ. of Wis. Press, 327 p., maps, \$7.50. Combines official statistics and the reports of local officials to present a fully documented study of the current and historical importance of maize as a foodstuff and export, revealing the structure of rural economies in the countries between the Sahara Desert and the Republic of South Africa.

MR. ARCTIC: An Account of Vilhjalmur Stefansson—Erick Berry—McKay, 185 p., photographs, map, \$4.50. Biography for young people.

MUST THE BOMB SPREAD?—Leonard Beaton—Penguin Bks., 147 p., paper, 95¢. An examination of the problem of nuclear proliferation, based on a conference of experts at The Institute for Strategic Studies in London.

PEACE IN VIETNAM: A New Approach in Southeast Asia—Bronson P. Clark and others—Hill & Wang, 112 p., map, \$3; paper, 95¢. A report prepared for the American Friends Service Committee. See story on p. 245.

THE PEOPLE OF PUERTO RICO: A Study in Social Anthropology—Julian H. Steward and others—Univ. of Ill. Press, 540 p., photographs, maps, \$10. Second printing of a major analytical study (1956) on the contemporary culture of Puerto Rico explained in terms of historical change.

THE POLITICS OF RESEARCH—Richard J. Barber—Public Affairs Press, 167 p., \$4.50. Annotated study of recent trends in the government's dominant role in subsidized research and the author's suggestions for a more effective control of the affairs of science by political institutions. The author was associated with the staff of Congressional Committees and was visiting professor at Yale Law School.

PRE-SCHOOL EDUCATION TODAY: New Approaches to Teaching Three-, Four- and Five-Year-Olds—Fred M. Hechinger, Ed.—Doubleday, 150 p., \$4.50. Articles deal with the influence

of early social environment, pre-school enrichment as an antidote for cultural deprivation, and a Saturday school for mothers and pre-schoolers.

RESOURCE BOOK FOR RURAL UNIVERSITIES IN THE DEVELOPING COUNTRIES—H. W. Hannah—Univ. of Ill. Press, 375 p., \$8.50. Compendium of information for agricultural, educational and political leaders in developing countries, includes detailed information about the structure, policies and procedures for setting up and operating both the academic and administrative areas in an agricultural university.

SIGNIFICANT ACHIEVEMENTS IN SPACE BIOSCIENCE, 1958-1964—Scientific & Technical Information Div., NASA—GPO, 128 p., paper, 55¢. Areas covered include exobiology, behavioral biology, bioinstrumentation and manned space flight.

SMITHSONIAN TREASURY OF 20TH-CENTURY SCIENCE—Webster P. True, Ed.—Simon & Schuster, 544 p., illus., \$7.95. Emphasizes the newer branches of investigation and recent advances in established sciences, selected from the annals and reports of the Smithsonian Institution.

SUNSET BEACHCOMBERS' GUIDE TO THE PACIFIC COAST—Bob Thompson, Ed.—Lane Bks., 112 p., photographs, maps, paper, \$1.95. About oceanographic interests, shorefishing, whale watching, sea shells, shore birds, tides and beach parks from San Diego to the Olympic Peninsula.

A SURVEY OF THE LITERATURE ON SHIPBOARD ICE FORMATION—N. Fein and A. Freiburger—NASL (CFSTI—AD 627 080), 16 p., paper, \$1. Summaries of articles and reports.

TECHNIQUES FOR EFFICIENT RESEARCH—Lewis E. Lloyd—Chemical Pub. Co., 215 p., \$8.50. The author, a research chemist, offers a methodology for solving problems, giving special attention to correlation of technical knowledge with business psychology.

YOUR ULCER: Prevention, Control, Cure—G. S. Serino—Lippincott, 162 p., illus. by Lois Carl Fargo, \$3.50. Physician explains what a peptic ulcer is, what are its causes, and discusses prevention, control, complications, surgery and diet.

THE WILDLIFE OF NORTH AMERICA—George Frederick Mason—Hastings House, 87 p., illus. by author, maps, \$4.25. A brief description of the origin, history and destiny of certain North American wildlife, to give young Americans a better understanding of the aims of conservation.

WIR SUCHEN DIE FORSCHER VON MORGEN: Tausend Naturwissen-schaftliche Themen zum STERN-Wettbewerb "Jugend forscht"—STERN-Redaktion, 97 p., illus., paper, single copies free upon request direct to Science Service. German-language pamphlet describing the first science fair competition in Germany this year, preliminary to the German entry in the International Science Fair.

THERMAL STRESSES IN A COMPOSITE CYLINDER: With an arbitrary Temperature Distribution Along Its Length—V. S. Nikishin, transl. from Russian—Plenum Press, 119 p., diagrams, \$22.50. Mathematical formulation of problems and numerical methods and calculations of thermal stresses.

• Science News, 89:252 April 9, 1966

MILITARY SCIENCE

Air Force to Try Dropping Bombs Upward

► **DROPPING BOMBS** is too old-fashioned for low-level attacks by today's high-speed aircraft, so the U.S. Air Force plans to try ejecting bombs from the top of an aircraft.

A device that can throw a 340-pound bomb at 100 feet per second will be mounted on a high-speed test sled at Holloman Air Force Base, New Mexico. Similar to a pilot's ejection seat, the system will be tested at speeds up to twice the speed of sound as it hurls a dummy bomb about 150 feet above the sled track.

Upward ejection would increase bombing accuracy and give the pilot more time to get away from the blast of the exploding bomb.

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