

Books of the Week

For the editorial information of our readers, books received for review since last week's issue 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. Request free publications direct from publisher, not from Science Service.

THE ADSORPTION OF NORMAL OLEFINS ON SILICA-ALUMINA CATALYSTS—D. S. MacIver, R. C. Zabor and P. H. Emmett—*Mellon Institute*, 6 p., paper, free upon request direct to publisher, 4400 5th Ave., Pittsburgh 13, Pa.

AIDS TO BACTERIOLOGY FOR NURSES—E. Joan Bocock and Katharine F. Armstrong—*Bailliere (Williams & Wilkins)*, 175 p., illus., \$3. British textbook for the modern nurse.

THE ARCHAEOLOGIST AT WORK: A Source Book in Archaeological Method and Interpretation—Robert F. Heizer, Ed.—*Harper*, 520 p., illus., \$8. Reading selections for students of anthropology, providing a series of statements on procedures and results in the words of the original authors, many of them long out of print.

ASBESTOS: Its Industrial Application—D. V. Rosato—*Reinhold*, 214 p., illus., \$5.75. Information on the use of asbestos products in the fields of building materials, insulation, electrical units, chemical units, and many others.

BOEING 707—Martin Caidin—*Ballantine*, 212 p., illus. by Fred L. Wolff, photographs, paper, 50¢. Story of the world's fastest passenger jets, flying at speeds of 600 miles per hour.

BUMBLEBEES—John B. Free and Colin G. Butler, appendices by Ian H. H. Yarrow—*Macmillan*, 208 p., photographs by C. G. Butler, \$5. Scientific study of bumblebees, whose communities are more primitively organized than those of the honeybees, therefore of great interest from the evolutionary point of view.

THE CAMPSITE FINDER, Vol. I: Pacific Coast—Richard and Jane Hartsveldt—*Naturegraph*, 80 p., illus., paper, \$1. Directory of campsite locations, giving distances from numbered highways in California, Oregon, Washington, Alaska, British Columbia and Yukon Territory.

CHILDREN IN PRACTICE—John Peterson—*Cambridge Univ. Press*, 227 p., \$4.75. Written to assist the medical student to see his child patients within their social context, with special reference to physical and mental health.

CONNECTIVE TISSUE, THROMBOSIS, AND ATHEROSCLEROSIS: Proceedings of Conference Held at Princeton in 1958—Irvine H. Page, Ed.—*Academic*, 316 p., illus., \$9.50. Papers and discussions on such subjects as the macromolecular basis of collagen structure, properties of fibrinolytics, and the fibrinolysin system.

ELEMENTS OF SOLID STATE THEORY—Gregory H. Wannier—*Cambridge Univ. Press*, 270 p., illus., \$6.50. Presents the main ideas specific to solid state physics, for the advanced student or scientist.

ENGLISH-SPANISH COMPREHENSIVE TECHNICAL DICTIONARY, Section II—Lewis L. Sell—*McGraw*, 1079 p., \$35. Specializes in terms of atomic and nuclear engineering, electronics, automation, microwaves, rocketry, space travel, jet aircraft, electroacoustics; contains 400,000 English and Spanish technical terms and expressions.

THE EVOLUTION OF MAN'S CAPACITY FOR CULTURE: Six Essays—J. N. Spuhler, Ed., summary by Leslie A. White—*Wayne State Univ. Press*, 79 p., illus., \$3.50. Essays examine modern man's evolution from the viewpoints of anatomy, physiology, psychology, language, culture and society.

EXPERIMENTAL MUSIC: Composition with an Electronic Computer—Lejaren A. Hiller Jr. and Leonard M. Isaacson—*McGraw*, 197 p., illus., \$6. The musician-mathematician team who created the Illiac Suite, first explain the aesthetic limits of computer composition, then discuss the theoretical basis of the method used, their experimental techniques and results.

FIBER TO FABRIC—M. David Potter and Bernard P. Corbman—*Gregg*, 3rd ed., 342 p., illus., \$4.20. Textbook for a basic course in textiles, covering natural and man-made fibers.

FLYING SAUCERS: A Modern Myth of Things Seen in the Skies—C. G. Jung, transl. from German by R. F. C. Hull—*Harcourt*, 186 p., illus., \$3.95. Dr. Jung analyzes the fact that there "has been a tendency all over the world to believe in saucers," and he investigates them as symptoms of the collective psyche.

GOOD BOOKS FOR CHILDREN: A Selection of Outstanding Children's Books Published 1948-57—Mary K. Eakin, Ed.—*Univ. of Chicago Press*, 274 p., \$5.95. A thousand fully annotated books, many among them science titles, are listed alphabetically by authors, giving reading level. Extensive subject index, includes curricular uses as well as general areas.

GRASSLANDS: A Symposium—Howard B. Sprague, Ed.—*Am. Assn. for the Advancement of Science*, 406 p., illus., \$9. A survey of the role grasslands play in our national economy and a review of our knowledge relating to grasslands.

GROUP METHODS IN THERAPY—Jerome D. Frank—*Public Affairs Committee*, Pamphlet

No. 284, 28 p., illus., paper, 25¢. Psychiatrist discusses the value and the various applications of group therapy.

HOT ORGANIC COATINGS—Raymond B. Seymour—*Reinhold*, 233 p., illus., \$7.50. Authoritative information on the properties of plastics in the hot-melt state and of resins and plastics in hot solution, and on the application of plastic coatings to such base materials as metal, textiles, wood, paper and concrete.

HOW BOATS GO UPHILL—Roger Pilkington—*Abelard-Schuman*, 48 p., illus. by Gordon Cullen, \$2.50. Story of locks and navigational waterways, written for young readers.

JOURNAL OF RESEARCH OF THE NATIONAL BUREAU OF STANDARDS: D. Radio Propagation, Vol. 63D, No. 1, July-August 1959—James R. Wait, Ed.—*Govt. Print. Off.*, 116 p., illus., paper, annual subscription (6 issues) \$4. One of the four separate sections in which NBS will be publishing its *Journal of Research*, starting this summer.

LEARNING TO WORK IN GROUPS: A Program Guide for Educational Leaders—Matthew B. Miles—*Teachers College*, 285 p., \$5. A book for educators.

MAN'S JOURNEY THROUGH TIME: A First Step in Physical and Cultural Anthropochronology—L. S. Palmer—*Philosophical Lib.*, 184 p., illus., \$10. An attempt by a physicist to express the theory of evolution in quantitative terms.

NATURAL HISTORY OF THE WEST INDIES—Gonzalo Fernandez de Oviedo, transl. & ed. by Sterling A. Stoudemire—*Univ. of N. C. Press*, 140 p., illus., paper, \$2.50. First English version of Oviedo's account which first appeared in Toledo in 1526.

NEUROPHARMACOLOGY: Transaction of Fourth Conference—Harold A. Abramson, Ed.—*Macy*, 285 p., illus., \$5. Discussions of the effects of respiratory poisons on Siamese fighting fish in relation to LSD-25 reactivation, clinical studies with Taraxin, "stop" and "start" systems, and physiologic action of Mescaline.

THE NEW INTERNATIONAL YEAR BOOK: A Compendium of the World's Progress for the Year 1958—*Funk*, 567 p., illus., \$10. Survey volume of scientific, social and political events in 1958. Section on physics was contributed by SCIENCE SERVICE.

PARIS SYMPOSIUM ON RADIO ASTRONOMY: International Astronomical Union and International Scientific Radio Union, 1958—Ronald N. Bracewell, Ed.—*Stanford Univ. Press*, 612 p., illus., \$15. Among other topics, covers moon reflections, radio emissions from Jupiter and other planets, radio stars, cosmology, and cosmic radio waves.

PRIMITIVE PEOPLES TODAY—Edward Weyer Jr.—*Doubleday*, 228 p., 212 photographs, 14 maps, \$10. With the help of an extraordinary collection of photographs, the anthropologist-author takes us among 14 primitive tribes, including Eskimos, the Bushmen of Africa, the Hairy Ainu of Northern Japan, and the Jivaro of South America.

RADIOISOTOPES FOR INDUSTRY—Robert S. Rochlin and Warner W. Schultz—*Reinhold*, 190 p., illus., \$4.75. Analysis and evaluation of current radioisotope applications in industry.

RECENT PROGRESS IN HORMONE RESEARCH, Vol. XV: Proceedings of the Laurentian Hormone Conference 1958—Gregory Pincus, Ed.—*Academic*, 504 p., illus., \$12.50. Papers on the pituitary hormones, on aspects of steroid chemistry and metabolism, and on aldosterone chemistry and physiology.

THE ROCKET HANDBOOK FOR AMATEURS: An Illustrated Guide to the Safe Construction, Testing, and Launching of Model Rockets—Lt. Col. Charles M. Parkin Jr., Ed., foreword by Werner von Braun—*Day*, 306 p., illus., by H. L.

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SCIENTIFIC RUSSIAN: A Concise Description of the Structural Elements of Scientific and Technical Russian—George E. Condoyannis—Wiley, 225 p., \$3.50. Designed to be used by the scientists or engineer who is beginning to read unsimplified Russian scientific and technical reading matter with the help of a dictionary.

SEVENTH SYMPOSIUM (INTERNATIONAL) ON COMBUSTION at London and Oxford, 1958—The Combustion Institute—Butterworths (*Academic*), 959 p., illus., \$35. Papers on the mechanism of combustion reactions, spectroscopy of flames, ionization of flames, ignition and limits of inflammability, turbulence in flames, and other aspects of combustion.

SOURCE BOOK OF INDUSTRIAL SOLVENTS, Vol. III: Monohydric Alcohols—Ibert Mellan—Reinhold, 276 p., \$10. Presents physical properties, azeotropic mixtures and uses of industrial alcohols, methods of manufacture and newer methods of fermentation.

STEROIDS—Louis F. Fieser and Mary Fieser—Reinhold, 950 p., illus., \$18. Replaces the 3rd edition of *Natural Products Related to Phenanthrene*. Scientific monograph presenting the steroid story in a readable fashion, covering the field to about February-March, 1959.

THE STRANGE ORDEAL OF THE NORMANDIER—H. L. Tredree—Little, 231 p., map, \$3.95. Story of the fatal voyage in 1918 of the British tramp ship whose crew contracted black-water fever, written up by its wireless operator.

SUBTROPICAL FRUIT PESTS—Walter Ebeling—Univ. of Calif., *Agric. Pubs.*, 436 p., illus., \$7. Reference work on insects of the subtropics and complete guide to control of insect pests on subtropical fruit crops.

SURVEYING—Harry Bouchard, rev. by Francis H. Moffitt—Int. Textbook, 4th ed., 664 p., illus., \$10.50. Many revisions include chapters on the basic principles of photogrammetry and stereoscopic plotting, and on the uses of the subense bar, the geodimeter and the tellurometer.

TEACHER SUPPLY AND DEMAND IN UNIVERSITIES, COLLEGES, AND JUNIOR COLLEGES, 1957-58 and 1958-59—Research Div., NEA—*Nat. Education Assn.*, 86 p., paper, single copies free upon request direct to publisher, 1201 16th St., N.W., Washington 6, D. C.

THE TECHNOLOGY OF PRINTED CIRCUITS: The Foil Technique in Electronic Production—Paul Eisler—*Academic*, 405 p., illus., \$12. While briefly surveying other prefabrication techniques, the author concentrates on the method at present most generally used, the production of electronic circuits from insulators surfaced with metal foil.

THEORETICAL ORGANIC CHEMISTRY: Kekule Symposium, organized by the Chemical Society, London, September 1958—International Union of Pure and Applied Chemistry, P. E. Verkade and others—Butterworths (*Academic*), 298 p., \$9.50. Papers on chemical bonding and structure, nucleophilic reactions, and electrophilic and homolytic reactions.

UNITED STATES GOVERNMENT ORGANIZATION MANUAL 1959-60—Office of the Federal Register—*Govt. Print. Off.*, rev. ed., 797 p., paper, \$1.50. Reference guide to the three branches of the U.S. government and its special agencies.

WORLD PROGRESS THROUGH EDUCATIONAL EXCHANGE: The Story of a Conference—Douglass Cater—*Inst. of International Education*, 39 p., illus., paper, single copies free upon request direct to publisher, 1 E. 67th St., New York 21, N.Y. Assessment of the International Educational Exchange program.

THE WORLD'S METROPOLITAN AREAS—International Urban Research Staff, Kingsley Davis,

Dir.—Univ. of Calif. Press, 115 p., \$3. Collection of comparative population statistics, listing the world's metropolitan areas of more than 100,000 inhabitants, classified by continent and country.

Science News Letter, August 1, 1959

CHEMISTRY

Castor Oil Can Be Used To Make Plastic Foams

CASTOR OIL can be used as a major ingredient in making plastic foams, the Department of Agriculture has reported.

Plastic, or urethane, foams made with castor oil range from spongy to rigid, depending on the amount of the oil or other ingredients used and on the methods of processing.

USDA's research with castor oil and plastic foam is part of a broad study designed to discover economic uses for castor beans. Although most of the 120,000,000 pounds of castor oil used in this country each year is imported, interest in domestic production of castor beans is growing.

A market is already established for castor oil as a raw material in jet-engine and other industrial lubricants, in cosmetics and in medicines.

Science News Letter, August 1, 1959

Questions

MEDICINE—What is "black cancer"? p. 71.

PALEONTOLOGY—Where was the skull bone, believed to be the oldest yet discovered of the higher primates, found? p. 73.

PUBLIC SAFETY—How long is a lightning stroke? p. 67.

Photographs: Cover, Princeton University; p. 67, New York Shipbuilding Corporation; p. 69, Aluminum Company of America; p. 74, Lederle Laboratories Division, American Cyanamid Company; p. 75, U.S. Army; p. 80, Organ Corporation of America.

Do You Know

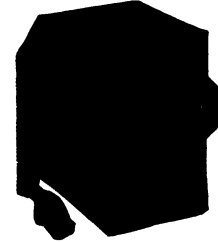
Fleck, a costly disease of tobacco leaves, has been traced to *ozone* formed by the action of sunlight on automotive exhaust gases and other air pollutants.

Since 1948, over 70 distinct *viruses* specific to man have been identified with the aid of tissue culture and other new laboratory techniques.

The making of *chewing gum* in the U. S. in 1958 called for 3,000,000 pounds of glycerides to control moisture content and more than 2,000,000 pounds of flavoring.

It is thought that *weather* the world over repeats itself every 273 months in warm and cold periods and drought and exceptional rainfall episodes.

100x Area Magnifying Projector



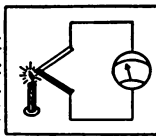
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