

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.

ACTIVE NETWORKS — Vincent C. Rideout — *Prentice-Hall*, 485 p., illus., \$10.65. Intended to cover not only vacuum tube networks, but also the fundamentals of all networks capable of amplification, with the chief emphasis on vacuum tube circuits as applied to communication and control engineering.

THE AMERICANA ANNUAL 1954: An Encyclopedia of the Events of 1953—John J. Smith, Ed. —*Americana Corporation*, 844 p., illus., \$10.00. Containing 832 factual articles by over 400 authorities. Articles are arranged alphabetically by subject.

CONCERNING THE NATURE OF THINGS — Sir William Bragg — *Dover*, 231 p., illus., cloth \$2.75, paper \$1.25. A republication in a student's edition of six lectures delivered by the author at the Royal Institution.

CRYSTAL DATA: Classification of Substances by Space Groups and Their Identification From Cell Dimensions—J. D. H. Donnay and Werner Nowacki with the collaboration of Gabrielle Donnay—*Geological Society of America*, Memoir 60, 719 p., \$5.00. The main table shows the distribution of about 3,800 different compounds among the space groups. A formula index and a name index are included.

THE FUNDAMENTALS OF COLLEGE CHEMISTRY —G. Brooks King and William E. Caldwell—*American Book Company*, 2d ed., 589 p., illus., \$4.50. The chapter on radioactivity and nuclear changes has been largely re-written, and other chapters have been substantially revised.

GENERAL PSYCHOLOGY — Douglas H. Fryer, Edwin R. Henry and Charles P. Sparks—*Barnes and Noble*, College Outline Series, 4th ed., 300 p., illus., paper, \$1.50. Handy and compact for reference or quick review.

HOW TO TRAVEL WITHOUT BEING RICH

If you know ALL the ways of reaching foreign countries, you don't need fantastic sums of money in order to travel. You could spend \$550-\$1000 on a one-way luxury steamer ticket to Buenos Aires, or you can get there for \$97 in fares via bus and rail through colorful Mexico, Panama, Colombia, the Andes, Peru, etc.

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Norman Ford, founder of the Globetrotters Club and America's top expert on low-cost travel, has gathered into one handy booklet dozens upon dozens of specific travel routings to all parts of the world—Mexico, South America, Europe, Africa and the Mediterranean, the Far East, Australia, the South Seas, etc.—so that you can see more at prices you can afford by combining freighter, liner, rail, bus, plane, and other competing services.

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GEOMETRICAL MECHANICS AND DE BROGLIE WAVES—J. L. Synge—*Cambridge University Press*, 167 p., illus., \$4.75. Systematic development of a theory on the basis of Hamilton's optical method and supplementation with a process of "primitive quantization." The author has diluted the abstractness by working out some particular examples in detail.

THE MAGIC OF ELECTRONICS — Edward J. Bukstein—*Frederick Ungar*, 256 p., illus., \$3.95. Telling something of the insides of your radio and television and, also, less well known uses of electronics such as a bean sorter, electronic sewing machine, depth finder and the electronic "brain."

THE NATURE OF LIGHT AND COLOUR IN THE OPEN AIR—M. Minnaert, translated by H. M. Kremer-Priest, revised by K. E. Brian Jay—*Dover*, 362 p., illus., cloth \$3.95, paper \$1.95. A republication of the first English translation originally published by G. Bell & Sons, Ltd. Telling why the rainbow is multicolored and why the falling snow is sometimes black.

NATURE PARADE—Frank W. Lane—*Sheridan House*, 333 p., illus., \$5.00. A synthesis of observations made by naturalists, explorers and scientists arranged by topic rather than by kind of creature. Topics include food, sleep, locomotion, war and leadership. Illustrated by beautiful photographs.

PARKING AS A FACTOR IN BUSINESS: Part 5, Trends in Economic Activity and Transportation in San Francisco Bay Area — David A. Revzan — *Highway Research Board*, 161 p., paper, \$2.10. Like other large cities, San Francisco has experienced a movement of people to the suburbs and an increasing tendency to shop at one-stop shopping centers, which have lower prices even though limited selection of goods.

PARKING AS A FACTOR IN BUSINESS: Containing Five Papers Presented at the Thirty-Second Annual Meeting, January 13-16, 1953 — Fred Burggraf and W. J. Miller, Eds. — *Highway Research Board*, Special Report 11, 321 p., illus., paper, \$6.00. Detailed reports on studies conducted at the Universities of Michigan, California and Washington and Ohio State on the relation between parking accommodations and shopping habits. Parts have been appearing separately. Here they are all in one volume.

PHYSICAL METEOROLOGY—John C. Johnson—*Technology Press of M. I. T.*, and *Wiley*, 393 p., illus., \$7.50. Physical meteorology investigates those meteorological phenomena not directly connected with the circulation of the atmosphere, and links meteorology with other branches of science. This book is designed to meet the needs of the research worker and the student.

SEA BIRDS: An Introduction to the Natural History of the Sea-Birds of the North Atlantic—James Fisher and R. M. Lockley—*Houghton Mifflin*, 320 p., illus., \$6.00. Based on many years of field work and visits along the coast and islands from Spitsbergen and Iceland in the north to Madeira and the Salvages in the warm south. Beautiful photographic illustrations.

STERLING GUIDE TO SUMMER JOBS—Based on a Survey Made in Early 1954 by the Editors of Sterling Publishing Co., Inc. Under the Supervision of Marianne S. Andersen—*Sterling Publishing Co.*, 128 p., illus., \$2.50. Hints especially for students on how to fill spare

time with activities that will help pay for education and will furnish useful experience.

SILAGE FERMENTATION—A. J. G. Barnett—*Academic*, 208 p., illus., \$5.00. A discussion largely concerned with grass and what happens to it under fermentation.

THE STATISTICAL APPROACH TO X-RAY STRUCTURE ANALYSIS—Vladimir Vand and Ray Pepinsky—*X-ray and Crystal Analysis Laboratory, Pennsylvania State University*, 98 p., illus., paper, \$1.50. Containing analyses and extensions of the theory of the statistical approach to phase determination in X-ray crystal analysis, as reported in the monograph by H. Hauptman and J. Karle.

STATISTICS OF PUBLIC SECONDARY DAY SCHOOLS, 1951-1952—Walter H. Gaumnitz and Mabel C. Rice—*Gov't Printing Office*, 81 p., paper, 35 cents. Chapter 5 of the U. S. Dept. of Health, Education, and Welfare's "Biennial Survey of Education in the United States, 1950-1952."

STUDIES IN SCHIZOPHRENIA: A Multidisciplinary Approach to Mind-Brain Relationships—Robert G. Heath, Chairman—*Commonwealth Fund (Harvard University Press)*, 619 p., illus., \$8.50. Presenting a review of the studies on schizophrenia conducted by the Department of Psychiatry and Neurology of the Tulane University of Louisiana School of Medicine. This is a progress report of both animal and human studies.

SURVEY OF FOOD AND NUTRITION RESEARCH IN THE UNITED STATES OF AMERICA 1952-1953—Food and Nutrition Board, National Research Council—*Govt. Printing Office*, 372 p., paper, \$1.75. A listing of active research projects and the individuals and organizations working in the field.

SYMPOSIUM ON PROTEIN METABOLISM: Proceedings of the Nutrition Symposium Held at the University of Toronto, Toronto, Ontario, Canada, October 30, 1953—A. E. Axelrod and others—*National Vitamin Foundation*, 107 p., illus., paper, \$1.50. The first symposium dealing exclusively with protein metabolism to be held in Canada.

TEXTBOOK OF BIOCHEMISTRY—Benjamin Harrow and Abraham Mazur—*Saunders*, 6th ed., 563 p., illus., \$6.50. Containing many revisions and a new chapter on the metabolism of nucleoproteins, as well as new material on timely topics such as chromatography.

TROPICAL METEOROLOGY—Herbert Riehl—*McGraw-Hill*, 392 p., illus., \$8.50. Information in this field, which had its real beginnings in the early 1940's, is scattered throughout many journals and research papers. The author here brings together basic information useful to the student as well as the professional meteorologist.

VARIETIES OF HARD RED WINTER WHEAT IN THE UNITED STATES—L. P. Reitz and C. O. Johnston—*Govt. Printing Office*, USDA Circular No. 938, 24 p., illus., paper, 15 cents. About one-half of the total wheat acreage in the United States is occupied by hard red winter wheat.

VECTOR AND TENSOR ANALYSIS—G. E. Hay—*Dover*, 193 p., illus., cloth \$2.75, paper \$1.50. Problems for students of engineering and mathematical physics.

THE VITAMINS: Chemistry, Physiology, Pathology, Vol. 1—W. H. Sebrell, Jr. and Robert S. Harris, Eds.—*Academic*, 676 p., illus., \$16.50. The first of a three-volume reference work covering the fundamental facts about all the vitamins. The contributors to these volumes are outstanding in their respective fields. Volume one includes the vitamins from A through biotin.

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