

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.

ATOMIC POWER: An Economic and Social Analysis—Walter Isard and Vincent Whitney—*Blakiston*, 235 p., illus., \$4.75. Some of the concrete information necessary for solving the complex problem of international atomic control. Intended for scientists, administrators and interested laymen.

BACTERIA—K. A. Bisset and F. W. Moore—*Williams and Wilkins*, 123 p., illus., \$4.00. A natural history of bacteria for students of microbiology and researchers in industry, medicine and biochemistry.

BASIC AERONAUTICS—Merrill E. Tower—*Aero*, 252 p., illus., \$3.70. For use in high school or junior college classes or by laymen who want basic knowledge of aviation.

THE COMPLETE BOOK OF DRIED ARRANGEMENTS—Raye Miller Underwood—*Barrows*, 193 p., illus., \$4.95. Methods for preserving flowers and foliage in sand, borax or glycerin, and using them in decorative arrangements. Includes sections on pressed-flower pictures and trays.

CONTROL FROM WITHIN: Techniques for the Treatment of the Aggressive Child—Fritz Redl and David Wineman—*Free Press*, 332 p., \$4.50. The authors of "Children Who Hate" here tell in detail how such children can be helped, drawing on their experiences at Pioneer House.

EATING IS FUN—FOR OLDER PEOPLE, TOO—*American Dietetic Association*, 17 p., illus., paper, 50 cents. Ideas and menu patterns for pleasantly supplying the nutritive needs for older people, for use in homes for the aging or in family groups.

FLAMINGO HUNT—Paul A. Zahl—*Bobbs-Merrill*, 270 p., illus., \$3.50. The story of a scientist's search in the waters of the Bahama Islands for the nesting grounds of flamingos.

HARDNESS AND FLEXIBILITY OF NATURAL AND SYNTHETIC RESIN VARNISHES—Robert L. Feller—*Mellon Institute*, 2 p., paper, free upon request to publisher, 4400 Fifth Ave., Pittsburgh 13, Pa. Reprinted from *The Museum News*.

INDIANS OF THE ANDES: Aymaras and Quechuas—Harold Osborne—*Harvard University Press*, 266 p., illus., \$4.50. The history and ecology of the highland peoples of the Central Andes, whose empire before the European conquest was the most extensive and advanced in the New World.

INTRODUCTORY GENERAL CHEMISTRY—John E. Cavelti—*Blakiston*, 423 p., illus., \$4.50. For a terminal college course or for the chemistry major's first course, with an emphasis on readability which the author hopes, may help overcome the "shrinking horror" with which otherwise well-educated people often approach science of any kind.

MEDICAL BIOGRAPHIES: The Ailments of Thirty-three Famous Persons—Philip Marshall Dale—*University of Oklahoma Press*, 259 p., illus., \$4.00. Lives of the great from Buddha to Robert Louis Stevenson reexamined in the light of current medical knowledge; for the layman.

MISCELLANEOUS PHYSICAL AND CHEMICAL TECHNIQUES OF THE LOS ALAMOS PROJECT: Experimental Techniques—Alvin C. Graves and Darol K. Froman—*McGraw*, 323 p., illus., \$4.00. Another in the National Nuclear Energy Series, describing apparatus and techniques used during the early atomic energy research, some of which are still applicable to present-day laboratory situations.

MODERN CHEMICAL PROCESSES: A Series of Articles Describing Chemical Manufacturing Plants. Volume II.—The Editors of *Industrial and Engineering Chemistry*—*Reinhold*, 299 p., illus., \$5.00. Articles originally published in *Industrial and Engineering Chemistry* under the title, "Staff-Industry Collaborative Reports."

MY FIGHT TO CONQUER MULTIPLE SCLEROSIS—Hinton D. Jonez—*Messner*, 227 p., \$3.50. The story of Dr. Jonez' work at the Multiple Sclerosis Clinic of St. Joseph Hospital in Tacoma, Washington, to apply current medical knowledge to the treatment of this crippling disease.

NEWS AND THESE UNITED STATES—Edith Merwin Bartow—*Funk & Wagnalls*, 292 p., illus., \$5.00. The story of journalism in America, informally told and with the cheering conclusion that: "Towards better newspapers, better reporting, and better defense of its readers, the entire American press is steadily progressing."

SOIL PHYSICAL CONDITIONS AND PLANT GROWTH—Byron T. Shaw, Ed.—*Academic Press*, 491 p., illus., \$8.80. To provide students and agriculturalists with a critical evaluation of present knowledge and to point out areas in which more data are needed.

STEEL INDUSTRY—Richard D. Hoak—*Mellon Institute*, 8 p., illus., paper, free upon request to publisher, 4400 Fifth Ave., Pittsburgh 13, Pa. Reprinted from *Industrial and Engineering Chemistry*.

SYSTEMATIC COLLEGE CHEMISTRY—Lytle Raymond Parks and Warren H. Steinbach—*Blakiston*, 692 p., illus., \$5.50. A new text for the student who has had a high school course in physical science, whether or not he has previously studied chemistry.

TOTAL ECLIPSE OF THE SUN, JUNE 30, 1954—Nautical Almanac Office—*Govt. Printing Office* (Supplement to the American Ephemeris, 1954), 42 p., paper, 40 cents. Technical information for use along the path of the total phase in the United States, Canada, and Greenland. Maps are included.

U. S. FIGHTING PLANES 1952—Dale W. Cox—*Arco*, 64 p., illus., \$2.00. Photographs and statistics of U. S. military aircraft.

WATER: A Study of Its Properties, Its Constitution, Its Circulation on the Earth, and Its Utilization by Man—Cyril S. Fox—*Philosophical Library*, 148 p., illus., \$8.75. An outline of the science of water, in its academic and practical aspects, to "draw attention to the immense importance of the control and use of water." Written by an Englishman, the

book gives close study to the land-reclamation schemes of the U. S.

WILD FLOWERS FOR YOUR GARDEN—Helen S. Hull—*Barrows*, 280 p., illus., \$4.95. How to grow and use 50 most popular and dependable wild flowers.

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AERONAUTICS

Airliners With Turbo-Prop Being Built in England

► FAST 100-PASSENGER airliners with turbo-prop propulsion are under construction in England. They are for long-range routes and will have speeds considerably greater than conventional airliners but not as great as the turbo-jet transport which has just gone into regular service between London and South Africa.

The new planes will be known as Britanias. Twenty-five are now under construction, an official of the British Overseas Airways Corporation has reported. They are versions of the British giant Brabazon transport equipped with gas-turbine engines instead of conventional reciprocating power plants.

Turbo-prop propulsion uses an engine much like that employed in the turbo-jet engine for jet propulsion but all of the power generated is applied to a turbine shaft to produce rotation and drive ordinary rotating propellers. They will provide the new airliners with a speed approaching 400 miles an hour. At the same time there will be greater comfort for passengers because the airliners will fly at high altitudes above the atmospheric turbulence encountered near the earth and the vibrations in planes powered with reciprocating engines will be lacking.

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INVENTION

Wakeless Torpedo Finally Patented

► A WAKELESS torpedo for which patent application was filed back in 1936 has finally been granted a patent. Meanwhile, the inventor, Dr. Robert H. Canfield, Washington, has died. It is believed that granting of the patent was held up so long for security reasons. The patent number is 2,589,225.

The torpedo is adapted to burn a fuel mixture which will produce exhaust gases that will be absorbed by the water. Hence, bubbles which produce the telltale wake will not be formed.

Formerly, the inventor claimed, torpedoes were driven by the product of a combustion of fuel with air. Nitrogen was discharged, producing the bubbles. Dr. Canfield discovered that when a fuel composed of compounds of hydrogen and carbon, or of hydrogen, carbon and oxygen is burned in nearly pure oxygen, the products are completely absorbed in water.

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