

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.

A TO Z IN AUDIO—G. A. Briggs with R. E. Cooke—*Gernsback Lib.*, 224 p., illus., paper, \$3.20. Hi-fi glossary.

ABSORPTION SPECTRA IN ULTRAVIOLET AND VISIBLE REGION (A Theoretical and Technical Introduction)—L. Lang, Ed.—*Academic Press*, 494 p., illus., ring-binding, \$18. Results and data of recent experimental work done at chemical and physical research institutes in Hungary.

ADVENTURES IN GRAPHING—William H. Glenn and Donovan A. Johnson—*Webster Pub. Co.*, 64 p., illus., paper, 85¢. Examples and exercises for exploring the mathematics of graphs on your own.

ADVENTURES IN NATURE: Selections from the Outdoor Writings—Edwin Way Teale—*Dodd*, 304 p., illus. by Walter W. Ferguson, paper, \$1.95. Naturalist's observations from Maine to California.

ADVENTURES OF THE MIND from The Saturday Evening Post (Second Series)—Richard Thruelsen and John Kobler, Eds.—*Knopf*, 654 p., photographs, \$6.50. Forty essays by creative thinkers, interpreting advances in specialized fields, for the layman.

THE AMERICAN HIGH SCHOOL AND THE TALENTED STUDENT—Frank O. Copley, foreword by Richard Pearson—*Univ. of Mich. Press*, 92 p., \$3.95. Addressed to parents and educators, deals with the problem of how large or small American high schools can better educate the superior students.

ANSWERS AND MORE ANSWERS—Mary Elting—*Grosset*, 156 p., illus. by Tran Mawicke, \$3.95.

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Question and answer book about nature and technology for inquiring boys and girls.

AUTOMATION IN THE OFFICE—Ida Russakoff Hoos—*Public Affairs Press*, 138 p., \$4.50. Outgrowth of three years of field research, this study gives particular attention to the complex social impact of automation.

BRITAIN'S SEARCH FOR HEALTH: The First Decade of the National Health Service—Paul F. Gemmill—*Univ. of Pa. Press*, 171 p., \$5. Outcome of a four-year objective study of the British system for providing some 50 million people collectively with whatever health care they need individually.

THE CHEMICAL AND BIOLOGICAL ACTION OF RADIATIONS, Vol. V—M. Haissinsky, Ed.—*Academic Press*, 278 p., graphs, \$8. On mechanism of the radiolysis of water by gamma rays, action of alpha rays, diffusion kinetics in radiation chemistry and mass spectrometry.

COMPUTING DEVICES—Donovan A. Johnson and William H. Glenn—*Webster Pub. Co.*, 55 p., illus., paper, 80¢. For students who want to explore the mathematics of computers on their own.

CONCEPTS OF MASS: In Classical and Modern Physics—Max Jammer—*Harvard Univ. Press*, 230 p., \$6. Comprehensive exposition of the historical development of the concept of mass, and of the meaning of the term and its role in physics.

CRIME SCIENTISTS—Mike McGrady—*Lippincott*, 149 p., photographs, \$3.25. The story of those concerned with the scientific investigation of crime in the police laboratories of large cities.

THE DETERMINATION OF STABILITY CONSTANTS AND OTHER EQUILIBRIUM CONSTANTS IN SOLUTION—Francis J. C. Rossotti and Hazel Rossotti—*McGraw*, 425 p., \$12.50. Text for graduate students and work of reference.

DISCOVERY: Great Moments in the Lives of Outstanding Naturalists—John K. Terres, Ed.—*Lippincott*, 338 p., illus. by Thomas W. Nason, \$6.50. Collection of narratives by 36 distinguished contemporary naturalists.

DWELLERS IN DARKNESS—S. H. Skaife—*Doubleday*, 180 p., illus., paper, 95¢. Detailed account of the strange ways of the black-mound termite of the Cape, South Africa.

ELECTROPHYSIOLOGICAL METHODS IN BIOLOGICAL RESEARCH—J. Bures, M. Petran and J. Zachar—*Czechoslovak Acad. of Sciences (Academic Press)*, 515 p., illus., \$15. Theory and techniques of electrophysiology, the analytical research tool that gives a picture of processes in living matter from individual cells to the mammalian brain.

KANSAS WILD FLOWERS—William Chase Stevens—*Univ. of Kansas Press*, 2nd ed., 461 p., 761 photographs by author, \$8. Handbook presents about 500 species of wild flowers common to the Middle West, with detailed descriptions and clear illustrations.

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LABORATORY MANUAL FOR DAIRY MICROBIOLOGY—E. M. Foster and W. C. Frazier—*Burgess*, 3rd ed., 72 p., paper, \$3. Concise directions for experiments with milk microorganisms, milk quality testing and microbiology of dairy products.

THE LORE OF LARGE NUMBERS—Philip J. Davis—*Random House*, 165 p., illus., paper, \$1.95. Written by professional mathematician to make the arithmetic of large numbers interesting and understandable to high school students and laymen.

MAN AND POWER: The Story of Power from the Pyramids to the Atomic Age—L. Sprague de Camp—*Golden Press*, 189 p., illus., \$4.95. Colorful panorama depicting and describing man's development of sources of energy to help him build, move around and produce.

MATHEMATICS IN THE MAKING—Lancelot Hogben—*Doubleday*, 320 p., 400 illus., \$9.95. Colorful, graphically presented review of man's use of mathematics through the ages, written by mathematician for the general reader.

MEDICAL AND BIOLOGICAL ASPECTS OF THE ENERGIES OF SPACE—Paul A. Campbell, Ed.—*Columbia Univ. Press*, 491 p., illus., \$10. Brings together special knowledge in the medical, biological, astrophysical and engineering sciences as related to the energies of space, their conversion and use.

MODERN SCIENCE AND THE NATURE OF LIFE—William S. Beck—*Doubleday*, 334 p., paper, \$1.45. Reprint of 1957 book on the historical development of the scientific attitude.

THE NEW LEADERS OF AFRICA—Rolf Italiaander, transl. from German by James McGovern—*Prentice-Hall*, 306 p., photographs, maps, \$5. Portrays the lives and actions of the new native African statesmen and politicians.

THE OCEAN ISLAND (Inagua)—Gilbert C. Klingel—*Doubleday*, 415 p., map, photographs by author, paper, \$1.45. Reprint of naturalist's observations of life on land, in sea and air, on an island in the Bahamas.

ON THE VARIOUS FORCES OF NATURE—Michael Faraday, introd. by Sir. J. Arthur Thomson, foreword by E. N. da C. Andrade—*Crowell*, 155 p., illus. with original diagrams, \$2.75. New edition of the first of the famous Christmas Lectures at the Royal Institution in London to appear in book form.

RED TAG COMES BACK—Fred Phleger—*Harcourt*, 64 p., illus. by Arnold Lobel, \$1.95. Charming book for beginning readers, follows a tagged salmon through its life cycle.

SCIENCE AND THE NEW NATIONS: The Proceedings of the International Conference on Science in the Advancement of New States at Rehovoth, Israel—Ruth Gruber, Ed.—*Basic Bks*, 314 p., illus., \$6.50. Summaries of papers and highlights of discussions of delegates from developed and underdeveloped countries on five continents.

SCIENCE SURVEY 2—A. W. Haslett and John St. John, Eds., foreword by Sir Wilfrid Le Gros Clark—*Macmillan*, 372 p., illus., \$7.50. Second annual selection of scientists' reports on recent advances of interest to the intelligent layman, planned in cooperation with the British Association for the Advancement of Science.

SHEARWATERS—R. M. Lockley—*Doubleday*, 256 p., illus., paper, \$1.25. A record of the breeding and migration habits of the seabirds.

SOUTH AFRICA—Monica M. Cole—*Dutton*, 696 p., photographs, maps, diagrams, \$16.95. Comprehensive work on South African geography, water supply, agriculture, mineral resources, power resources, industries, communications and major regions.

SOVIET POWER: Energy Resources, Production and Potentials—Jordan A. Hodgkins—*Prentice-Hall*, 190 p., maps, \$5.25. Analysis of distribution, reserves and energy potential of Russian

coal, oil shale, oil and natural gas, in a region by region survey with projections to 1965.

TEACHING BY MACHINE—Lawrence M. Stolorow—*Office of Educ. (GPO)*, 173 p., illus., paper, 65¢. Monograph examines the potentialities of auto-instructional materials as aids to more economical and efficient solutions to educational problems.

TEACHING HIGH SCHOOL SCIENCE: A Sourcebook for the Physical Sciences—Alexander Joseph and others—*Harcourt*, 674 p., \$7.95. Offers a wide variety of demonstration and laboratory procedures, and suggestions for projects and experiments, suitable for many science courses.

TRANSACTIONS OF THE SECOND PRAGUE CONFERENCE ON INFORMATION THEORY, STATISTICAL DECISION FUNCTIONS, RANDOM PROCESSES—V. E. Benes and others; J. Kozesnik, Ed.—*Czechoslovak Acad. of Sciences (Academic Press)*, 843 p., illus., \$22. Contains papers given by European, U.S. and U.S.S.R. experts.

INVENTIONS

Patents of the Week

A photographic system that records the bomb damage after a nuclear attack, a spraying device for painting flagpoles and a folding fire ladder have been patented.

► AN AUTOMATIC photographic system that photographs the amount of bomb damage after a nuclear attack has been patented.

The high-flying camera unit snaps a series of pictures during the brief time between the explosion's bright flash and the formation of the deadly mushroom cloud, inventor George W. Goddard, Chevy Chase, Md., stated in patent No. 2,998,762. Rights were assigned to Bulova Research and Development Laboratories, Inc., Woodside, N. Y.

When a bomb is released from the airplane, a timing mechanism opens the lens shutter while simultaneously closing the lens port with a dense filter and capping plate to prevent pre-exposure while the camera is in the "ready" position. The plate is automatically raised just before the explosion.

The atomic explosion's bright flash is recorded by a photo-cell, which raises the filter and a series of pictures are snapped.

The camera is mounted in the airplane's nose and has a wide-angle lens necessary for the large destructive radius of atomic bombs. The increased damaged area and the nature of the after effects have made conventional strike and bomb damage assessment techniques useless in the nuclear environment, the inventor stated.

The days of the flagpole sitting painter are numbered, according to patent No. 2,998,801. Arthur F. Edelberg, Cleveland, Ohio, has invented a spray painting device that is raised or lowered on the halyard of the flagpole. Patent rights were assigned to Kamco Products, Inc., also of Cleveland.

The box-like device which wraps around the pole is hoisted to the top. Spray guns are then turned on while the painting unit is lowered by gravity and controlled by the halyard. Bristle brushes located at both ends of the casing smooth the sprayed

LA VICTORIA: An Early Site of the Pacific Coast of Guatemala—Michael D. Coe—*Peabody Mus.*, Vol. 53, 162 p., illus., \$11; paper, \$6.50. Analysis of cultural materials excavated in an early village site, including many figurine heads of the Conchas phase.

VOICES IN STONE: The Decipherment of Ancient Scripts and Writings—Ernst Doblhofer, transl. from German by Mervin Savill—*Viking*, 327 p., illus., \$6. Austrian philologist's work explains for the layman, with the help of many illustrations, the procedures followed by specialists in the decipherment of scripts of the past.

WHEELS, SAILS AND WINGS: The Story of Transportation—Fred Dietrich and Seymour Reit—*Golden Press*, 100 p., illus. by Harald Bukor and others, \$3.95. Large-scale picture book shows boys and girls how man attempts to conquer time and space.

• Science News Letter, 80:212 September 23, 1961

paint on the pole while also preventing the paint spray from leaking out of the unit.

A folding fire escape ladder for homes and small apartments was invented by Clayton E. Larson, Weston, Conn., who assigned rights of patent No. 2,998,863 to White Metal Rolling & Stamping Corporation, Brooklyn, N. Y. The metal ladder can be quickly hooked to the window and lowered to the ground in case of fire. X-shaped prongs project the ladder outward from the building, providing sure footing for the evacuee.

The ladder folds like an accordion into a compact box and is easily stored, the patent stated.

A motor vehicle attachment that supposedly prevents hypnosis caused by steady uninterrupted high-speed travel on modern highways was patented by Eugene W. Placek, Cleveland, Ohio. Rights of patent No. 2,998,799 was assigned to Genie Products Company, Cleveland.

A wedge-shaped plate with fins is dangled from a wire attached to the side window near the driver. The plate produces irregular noises and movement while flapping in the wind, causing the eyes to constantly refocus on the road.

An improved underground missile launcher that prevents harmful shock waves from damaging the missile during blast-off was patented by Karol J. Bialy, College Park, Md., who assigned rights of patent No. 2,998,754 to the U. S. Navy. The cone-shaped bottom of the underground tube diverts the shock waves away from the missile.

A large increase in the missile's thrust is also provided by using wing tip rollers or ball bearings that fit into grooves in the launching tube. The bearing assembly is cast off as soon as the missile is airborne.

• Science News Letter, 80:213 September 23, 1961

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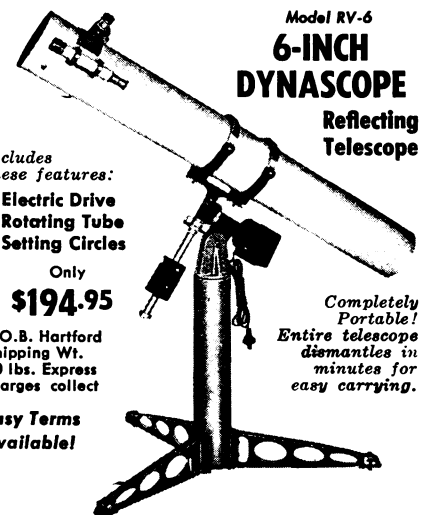
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