

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 ADOLESCENT EXCEPTIONAL CHILD: A Realistic Approach to Treatment and Training—Woods Schools, 79 p., paper, free upon request to publisher, Child Research Clinic, Langhorne, Pa. Proceedings of the 1954 Spring Conference of the Child Research Clinic of the Woods Schools discussing diagnosis, treatment and training of the retarded child, with emphasis on vocational training.

AMERICAN GAME BIRDS OF FIELD AND FOREST: Their Habits, Ecology and Management—Frank C. Edminster—Scribner's, 490 p., illus., \$12.50. Discussing each species of American game birds, telling of their habits, their relationship with man and conservation requirements for their survival.

THE ANATOMY OF THE DIASTEMAL PALATE IN MICROTINE RODENTS—Wilbur B. Quay—University of Michigan Press, Miscellaneous Publications of the Museum of Zoology, No. 86, 41 p., illus., paper, 75 cents.

ART IN SCIENCE—György Kepes—Simon and Schuster, 3 p., 32 plates, portfolio, \$6.00. A collection of 32 paintings, drawings and photographs of excellent quality suitable for framing.

THE ART OF PRIMITIVE PEOPLES—J. T. Hooper and C. A. Burland—Philosophical Library, 168 p., illus., \$7.50. The art of primitive people provides mute evidence of the development and exchange of ideas, artistic conceptions and techniques over the world.

THE ATMOSPHERIC LUNAR TIDES—Ryukichi Sawada—New York University Press, Meteorological Papers, Vol. 2, No. 3, 31 p., illus., paper, \$1.50. Based on work done at New York University while the author was on leave from his post in Tokyo.

188 Math. Puzzles \$1.00

Test your mental agility on the 188 mathematical puzzles in Geoffrey Mott-Smith's intriguing "MATHEMATICAL PUZZLES FOR BEGINNERS AND ENTHUSIASTS." Puzzles like Tartaglia's Riddle, The Hoskins Family, The Flag of Equatria and The Wily Chief for those who know only simple arithmetic. Puzzles like Sally's Age and The Ferryboat Gate for those who understand elementary algebra and plane geometry. Puzzles like The Anagram Box and Poker Dice for geniuses. Puzzles calling only for ingenuity and logic. Puzzles based on plane figures, the properties of digits and integers, decimation, permutation, probability, and the analysis of popular board and card games. They're all here in this big 248-page book, together with their solutions. EXTRA! Valuable tables of prime numbers, squares, and higher powers. Second revised edition. SEND ONLY \$1.00 FOR YOUR PAPERBOUND COPY (a saving of \$1.25 off the regular clothbound edition) to Dover Publications, Dept. 22, 920 B'way, N.Y. 10, N.Y. Money back in 10 days if not delighted.

BIG DAM FOOLISHNESS: The Problem of Modern Flood Control and Water Storage—Elmer T. Peterson, with introduction by Paul B. Sears—Devin-Adair, 224 p., illus., \$3.50. The author believes that the building of big dams is a waste of taxpayers' money and that flood control can best be accomplished by "keeping water where it falls."

BIRDS THE WORLD OVER: As Shown in Habitat Groups in Chicago Natural History Museum—Austin L. Rand and Emmet R. Blake—Chicago Natural History Museum, 96 p., illus., paper, \$1.50. The habitat groups of the Museum represent birds from five continents, Antarctica and several islands, in lifelike settings.

BRINGING GAS TURBINES DOWN TO EARTH—Charles A. Krasne and others—Student Gas Turbine Research Group, 140 p., illus., paper, \$10.00. A survey of all non-aircraft applications of gas turbines, prepared by a student group of the Harvard Business School.

CAPITAL AND OUTPUT TRENDS IN MINING INDUSTRIES, 1870-1948—Israel Borenstein—National Bureau of Economic Research, Inc., Occasional Paper 45, 81 p., paper, \$1.00. The purpose of this study was to discover what light the past record might throw on future demand for capital in mining industries.

CERAMIC, PAPER, RUBBER, TEXTILE, WOOD, AND OTHER PRODUCTS AND PROCESSES: Government-Owned Inventions Available for License—Government Patents Board—Office of Technical Services, Patent Abstracts Series No. 7, 26 p., paper, \$1.00. Describing 308 inventions.

CONTRIBUTIONS TO THE MORPHOLOGY OF THE DELESSERIACEAE—Florence Signaigo Wagner—University of California Press, 66 p., illus., paper, \$1.00. Discussing marine algae.

EIGHTH ANNUAL REPORT OF THE OAK RIDGE INSTITUTE OF NUCLEAR STUDIES, JUNE 30, 1954—William G. Pollard, executive director—Oak Ridge Institute of Nuclear Studies, 70 p., illus., paper, single copies free upon request to publisher, P. O. Box 117, Oak Ridge, Tenn. Reporting the accomplishments of the Teletherapy Evaluation Board in the development, in cooperation with 22 medical schools, of clinical devices using high-energy radiation sources, as well as other activities of the Institute.

ELECTRICAL AND ELECTRONIC APPARATUS: Government-Owned Inventions Available for License—Government Patents Board—Office of Technical Services, Patent Abstract Series, No. 5, 160 p., paper, \$4.00. Containing 1,915 abstracts of inventions.

ENGINEERING CYBERNETICS—H. S. Tsien—McGraw-Hill, 289 p., illus., \$6.50. The physicist-mathematician Ampere coined the word "cybernetique" to mean the science of civil government. It has now been borrowed as the name of the new science dealing with the organization of mechanical and electrical components for stability and purposeful actions.

FLUORIDATION: As a Public Health Measure—James H. Shaw, Ed.—American Association for the Advancement of Science, 232 p., illus., \$4.50. The third in a series of three monographs giving scientific evidence on the effect on dental health of fluorides.

GUIDE TO POPULAR FLORAS OF THE UNITED STATES AND ALASKA—S. F. Blake—Govt. Print-

ing Office, USDA Bibliographical Bulletin, No. 23, 56 p., paper, 25 cents. A selected list of nontechnical works on the identification of flowers, ferns and trees.

HIGH-ENERGY ACCELERATORS—M. Stanley Livingston—Interscience, 157 p., illus., \$3.25. Describing the newest, largest and highest-energy accelerators.

HIGHWAY ACCIDENTS AND RELATED FACTORS—Heinz Haber and others—Highway Research Board, Bulletin 91, 54 p., illus., paper, 75 cents. One of these five papers demonstrates how known behavior patterns can combine with the geography covered in a trip to cause accidents.

HUMAN LIMBS AND THEIR SUBSTITUTES—Paul E. Klopsteg and Philip D. Wilson, Eds.—McGraw-Hill, 844 p., illus., \$12.00. Presenting results of engineering and medical studies of the human limbs and the application of these data to the design and fitting of artificial limbs, as well as the care and training of amputees.

NEEDED RESEARCH IN HEALTH AND MEDICAL CARE: A Bio-social Approach—Cecil G. Sheps and Eugene E. Taylor—University of North Carolina Press, 216 p., \$5.00. Based on a seminar held in Chapel Hill in September 1952.

ORDOVICIAN CEPHALOPOD FAUNA OF BAFFIN ISLAND: Containing a Study of the Ordovician Trilobites from Silliman's Fossil Mount—A. K. Miller, Walter Youngquist, Charles Collinson and Harry B. Whittington—Geological Society of America, Memoir 62, 234 p., illus., \$4.75. Silliman's Fossil Mount yields well-preserved fossils in abundance, all of which seem to represent a single marine fauna.

PARENTS AND DELINQUENCY: A Report of a Conference—Helen L. Witmer, Ed.—Govt. Printing Office, Children's Bureau, 43 p., paper, 20 cents. Report of the Conference on Juvenile Delinquency, June 28-30, 1954.

PHOTOGRAPHIC MEASUREMENTS: Problems and Solutions—Gomer T. McNeil—Pitman, 101 problems, 10 tables, illus., \$5.00. Dealing with the mathematics involved in the physics of photography.

RECORDS OF FISHES IN THE JOHN N. LOWE COLLECTION FROM THE UPPER PENINSULA OF MICHIGAN—William Ralph Taylor—University of Michigan Press, Miscellaneous Publications of the Museum of Zoology, No. 87, 50 p., paper, 50 cents.

SONG OF THE SKY—Guy Murchie—Houghton-Mifflin, 438 p., illus., \$5.00. Presenting the phenomena of the sky, from the formation of snow crystals to the navigation of an airplane.

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STUDIES IN MATHEMATICS AND MECHANICS—Garrett Birkhoff, Gustav Kuerti and Gabor Szegő—*Academic Press*, 353 p., illus., \$9.00. A group of invited papers collected to celebrate the 70th birthday of Prof. Richard von Mises.

THE TEACHER AND MENTAL HEALTH—Prepared by the National Institute of Mental Health—*Govt. Printing Office*, Public Health Service Publication, No. 385, 20 p., illus., paper, 15 cents. Suggesting that teachers, along with parents, can assist in fostering the healthy emotional development of the child.

TREASURY OF PHILOSOPHY—Dagobert D. Runes, Ed.—*Philosophical Library*, 1280 p., \$15.00. An alphabetical list of important philosophers, with biographical sketches and representative excerpts from their work.

TREATISE ON INVERTEBRATE PALEONTOLOGY: Part D, Protista 3—Raymond C. Moore, Ed.—*Geological Society of America and University of Kansas Press*, 195 p., illus., \$3.00. Including a survey of the protozoa Radiolaria and Tintinnina.

WHEN MINDS GO WRONG: The Truth About Our Mentally Ill and Their Care in Mental Hospitals—John Maurice Grimes—*Devin-Adair*, 246 p., illus., \$3.50. Revised edition for the public of a report privately printed in 1951.

Science News Letter, December 11, 1954

PUBLIC SAFETY

Poison Gas Danger

➤ YOU MAY be in danger of a kind of poison gas attack in your home, the American Medical Association warned at its clinical meeting in Miami, Fla.

The war gas phosgene, for example, can be produced by the action of heat on carbon tetrachloride found in many homes. Fire extinguishers containing this chemical should not be used for fires in enclosed areas, although they are safe when used where there is sufficient circulating air.

Enough fumes can accumulate in a closed room from wood alcohol or benzol to become explosive if a spark reaches them, the AMA warning said.

Carbon tetrachloride is used in dry cleaning and in many paint and varnish removers as well as in fire extinguishers. Housewives are warned that the action of dousing material to be cleaned into a pan of

the liquid creates a heavy concentration of vapor in the breathing zone with potentially serious consequences.

Constant exposure to air containing one part of carbon tetrachloride vapor to 1,000 parts of air can cause chronic poisoning and damage to the liver and kidneys.

Fumes may accumulate dangerously when paint or varnish removers are spread on large surfaces.

"Do-it-yourself" activities are leading to more frequent use of various solvents in the home. This use, doctors at the meeting were told, should be recognized as a possible but often unsuspected source of disability or illness.

The AMA's warning was presented in an exhibit by Dr. C. M. Peterson and Clark D. Bridges of its council on industrial health.

Science News Letter, December 11, 1954

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