

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 AGRICULTURAL REGIONS OF THE UNITED STATES—Ladd Haystead and Gilbert C. Fite—*University of Oklahoma Press*, 288 p., illus., \$4.00. Pointing out the reasons why the greatest industrial nation in the world should also have the largest farm output and be one of the most varied in agricultural production, as well as giving practical information to the farmer or would-be farmer.

AUTOMATIC RECORD CHANGER SERVICE MANUAL WITH TAPE RECORDER SERVICE DATA, Vol. 6, 1953, 1954—*Howard W. Sams*, 189 sections, illus., paper, \$3.00. Providing service data on 1953 and 1954 models of record changers.

BIOFLAVONOIDS AND THE CAPILLARY—Gustav J. Martin and Albert Szent-Györgyi, Conference Co-Chairmen—*New York Academy of Sciences, Annals*, Vol. 61, Art. 3, 100 p., illus., paper, \$3.00. This series of papers is the result of a conference held by the section of biology of the N. Y. Academy of Sciences, Feb., 1955.

BITUMINOUS PAVING MIXTURES: Fundamentals for Design—Lloyd F. Rader and others—*Highway Research Board, Bulletin No. 105*, 45 p., illus., paper, 75 cents. For the engineer who is engaged in designing and constructing bituminous-paving mixtures.

CHEMISTRY OF THE SOLID STATE—W. E. Garner, Ed.—*Academic Press*, 417 p., illus., \$8.80. Presenting the facts and theories concerning the solid state in a form useful for physical chemists.

ELECTRO-MAGNETIC MACHINES—R. Langlois-Berthelot, translated and revised in collaboration with Lieut.-Colonel H. M. Clarke, with foreword by C. W. Marshall—*Philosophical Library*, 535 p., illus., \$15.00. Dealing with questions common to the different classes of transformers and rotating machines.

FROM ZERO TO INFINITY: What Makes Numbers Interesting—Constance Reid—*Crowell*, 145 p., \$3.00. Telling in an interesting fashion the story of the first ten natural numbers.

GEOCHRONOLOGY: With Special Reference to Southwestern United States—Terah L. Smiley, Ed.—*University of Arizona Press, Physical Science Bulletin No. 2*, 200 p., illus., \$1.50. A brief survey of the major methods used in dating prehistoric events in southwestern United States, intended to be of technical value to all investigators concerned with temporal problems, particularly those falling within the late Pleistocene and recent geologic epochs.

HORSES—Helen Jill Fletcher—*Gabriel*, 64 p., illus., paper, 25 cents. The story of the horse from prehistoric times to the present, told for young people.

HYDRODYNAMICS: A Study in Logic, Fact, and Similitude—Garrett Birkhoff—*Dover*, 186 p., illus., cloth \$3.50, paper, \$1.75. Originally published by Princeton University Press in 1950.

IMPROVED LUNAR EPHEMERIS 1952-1959: A Joint Supplement to the American Ephemeris and the (British) Nautical Almanac—Prepared jointly by the Nautical Almanac Offices of the U. S. A. and the United Kingdom—*Govt. Printing Office*, 422 p., paper, \$2.25.

INTRODUCTORY NUCLEAR PHYSICS—David Halliday—*Wiley*, 2 ed., 493 p., illus., \$7.50. A chapter has been added on the elements of wave mechanics and some formula derivations have been included in this edition.

LOWER CAMBRIAN PTYCHOPARIID TRILOBITES FROM THE CONGLOMERATES OF QUEBEC—Franco Rasetti—*Smithsonian, Smithsonian Miscellaneous Collections*, Vol. 128, No. 7, 35 p., illus., paper, 60 cents. Fifteen species, nine of them new, are described, and three new genera are established.

MAGNETIC MATERIALS IN THE ELECTRICAL INDUSTRY—P. R. Bardell—*Philosophical Library*, 288 p., illus., \$10.00. Seeking to bridge the gap between an academic study of the properties of magnetic materials and the limited treatment of the subject possible in most textbooks for engineers.

MONOGRAPHS ON TOPICS OF MODERN MATHEMATICS: Relevant to the Elementary Field—J. W. A. Young, Ed., with introduction by Morris Kline—*Dover*, 416 p., cloth \$3.95, paper \$1.90. Republication of the first edition published by Longmans, Green in 1911.

MORE MODERN WONDERS AND HOW THEY WORK—Captain Burr W. Leyson—*Dutton*, 2 ed., 215 p., illus., \$3.50. Giving the inside story of guns, the atomic submarine, UHF television, and other mechanical achievements of the 20th century.

NON-EUCLIDEAN GEOMETRY: A Critical and Historical Study of Its Developments, THE SCIENCE OF ABSOLUTE SPACE, THE THEORY OF PARALLELS—Roberto Bonola, John Bolyai and Nicholas Lobachevski—*Dover*, 389 p., cloth \$3.95, paper \$1.90. Three major contributions to non-Euclidean geometry, in English translation.

PHOTOGRAPHIC PRODUCTION OF SLIDES AND FILM STRIPS—*Eastman Kodak Co.*, 52 p., illus., paper, 50 cents. Designed to help the photographer carry out the necessary steps to transform flat copy and photographs to a filmstrip or slide sequence in either black-and-white or color.

THE REGULATION OF HUNGER AND APPETITE—Franklin Hollander, Ed.—*New York Academy of Sciences, Annals*, Vol. 63, Art. 1, 144 p., illus., paper, \$3.00. Dealing with the question, "Why do we eat, or fail to eat, even in spite of nutritional requirements?"

SEE THROUGH THE SEA—Millicent Selsam and Betty Morrow—*Harper*, 48 p., illus., \$2.50. Telling children about creatures living in the

sea, from tidal animals to those that live in darkness at the ocean bottom.

SEVEN MEN AMONG THE PENGUINS: An Antarctic Venture—Mario Marret, translated from the French by Edward Fitzgerald—*Harcourt, Brace*, 269 p., illus., \$4.50. Written by the leader of an expedition that went to the Antarctic to record weather conditions, to gather information about the habits of the Emperor penguins, and to test man's ability to withstand the rigors of the Antarctic night.

STICKS AND STONES: A Study of American Architecture and Civilization—Lewis Mumford—*Dover*, 2 ed., 238 p., illus., cloth \$3.00, paper \$1.50. This book attempts to relate individual structures to their urban site or their setting in the rural landscape.

TABLES OF THE CUMULATIVE BINOMIAL PROBABILITY DISTRIBUTION—Staff of the Computation Laboratory—*Harvard University Press*, 503 p., \$8.00. For statisticians interested in problems relating to sampling and quality control.

THEORY OF GROUPS OF FINITE ORDER—W. Burnside—*Dover*, 2 ed., 512 p., illus., cloth \$3.95, paper \$2.00. A republication of the second edition published in 1911.

WINGS IN YOUR FUTURE: Aviation for Young People—Leo Schneider and Maurice U. Ames—*Harcourt, Brace*, 151 p., illus., \$2.75. A readable book for children with experiments they can perform to help them understand the basic principles of flight and jet propulsion, and other aspects of aviation.

Science News Letter, September 3, 1955

SURGERY

Give Shot in Arm For Nose Surgery

► A SHOT in the arm plus soothing music relieves the strain of undergoing operations on the nose, three Chicago ear, nose and throat specialists report.

The shot of alcohol is literally given in the arm—by slow drip into a vein. The amount is regulated to produce a "feeling of well-being," but to stop short of inebriation.

It is particularly helpful for operations on teen-agers and the elderly, or those with other illnesses besides the nose condition for which surgery is needed.

After the alcohol, a local anesthetic is given and the operation proceeds while the patient listens to classical music through earphones.

This modern method of the centuries-old use of alcohol to help a patient through an operation is reported by Drs. Maurice H. Cottle, George F. Fisher and Roland M. Loring of the Illinois Masonic Hospital, Chicago, in the *Journal of the International College of Surgeons*.

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RADIO

Saturday, Sept. 10, 1955, 5:00-5:15 p.m. EDT

"Adventures in Science" with Watson Davis, director of Science Service, over the CBS Radio Network. Check your local CBS Station.

Miss Margaret Patterson, executive secretary, Science Clubs of America, and Joseph Kraus, coordinator, National Science Fair, will discuss "Science for Youth."

MATH IS FUN

By Joseph Degrazia, Ph.D.

Here is a treasury of brain-teasers. You need not be a mathematical genius to solve these problems and puzzles. What you need is to know how to THINK LOGICALLY—how to REASON. This is practically a "course" in applied logic and reasoning—besides being an immense amount of fun that will keep you absorbed for many hours. You will find not only that MATH IS FUN, but also that learning math can be fun!

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