

Books of the Week

TO SERVE YOU: To get books, send us a check or money order to cover retail price. Address Book Dept., SCIENCE NEWS LETTER, 1719 N St., N. W., Washington 6, D. C. Ask for free publications direct from issuing organizations.

ADVENTURES WITH PLASTICS — Louis V. Newkirk, Coleman Hewitt, and LaVada Zutter—*Heath*, 275 p., illus., \$3.50. This book, written in simple, direct style, contains detailed instructions for making more than a hundred projects with plastics in school or home workshop.

CHEMICAL PROCESS PRINCIPLES: Pt. 3—Kinetics and Catalysis—Olaf A. Hougen and Kenneth M. Watson—*Wiley*, 1107 p., illus., \$4.50. College text treating applied chemical kinetics thoroughly and discussing the principles and applications of homogeneous catalytic and heterogeneous reactions.

THE CULTURAL APPROACH — Ruth E. McMurry and Muna Lee—*Univ. of N. C.*, 280 p., \$3.50. A documented and factual survey of the governmental activities of ten nations toward improving mutual understanding of peoples through avenues of culture.

EDUCATION IN THE DOMINICAN REPUBLIC — Gladys L. Potter and Cameron D. Ebaugh—U. S. Office of Education, Bulletin 1947, No. 10, *Govt. Printing*, 34 p., paper, 15c. Another basic study on education which is one of a series prepared as a part of the program of cultural cooperation under auspices of U. S. Dept. of State.

ELEMENTS OF DEMOCRATIC GOVERNMENT — J. A. Corry—*Oxford Univ.*, 507 p., \$3.75. Revised edition of "Democratic Government and Politics," a political science text comparing the structure and working of government in U. S., Britain, and Canada with analysis of present-day problems.

AN INTRODUCTION TO SOIL MECHANICS — W. L. Lowe-Brown—*Pitman*, 2nd ed., 61 p., illus., \$1.75. A short descriptive survey of the subject written for the practicing engineer and omitting intricate mathematical formulae.

MEALS FOR MILLIONS — N. Y. State Jr. Legislative Comm. on Nutrition, Legis. Doc. (1947) #61—213 p., illus., free from: 94 Broadway, Newburgh, N. Y. The 5th and final report of the Committee advocating a nation-wide nutrition program and presenting viewpoints on nutrition by experts in various fields.

NUCLEONICS — *McGraw-Hill*, Monthly, \$15 per year. First issue of magazine which is consolidation of **ATOMIC POWER** and **ATOMIC ENGINEERING** and which is to cover technology for utilizing processes of radioactivity, nuclear disintegration, nuclear fission and nuclear synthesis.

PUBLIC HEALTH LAW — James A. Tobey—*Commonwealth Fund*, 3rd ed., 419 p., \$4.50. A revised edition of standard reference book which interprets the laws enacted for protection and promotion of public health together with facts regarding the administration and duties of health departments.

SURGERY OF THE AMBULATORY PATIENT—L. Kraer Ferguson—*Lippincott*, 2nd ed.,

932 p., illus., \$10.00 A reference text based on actual experience which discusses the problems of supplies, anesthesia, operations, surgical lesions and methods of treatment including uses of sulfa and penicillin. Section on dislocations and fractures contributed by Louis Kaplan.

TEXTILE MICROSCOPY IN GERMANY—Office of QM General, Military Planning Div. Research & Development Br. Textile Series Report No. 13—*Textile Research Inst.*, 147 p., illus., \$5.50. The development of phase microscopy in Germany and its application to textile fiber research amply illustrated by photomicrographs.

UNESCO AND YOU — U. S. National Commission for UNESCO, Dept. of State Pub. #2904—*Govt. Printing*, 42 p., illus., 15c. Questions and answers relative to UNESCO and the part each individual should play in a program for national and international peace.

THE UNITED STATES AND NON-SELF-GOVERNING TERRITORIES—Dept. of State, Pub. 2812, U. S.—United Nations Information Series 18—*Govt. Printing*, 106 p., paper, 30c. A summary of the development of U. S. and United Nations policy in regard to dependent areas.

Science News Letter, October 11, 1947

ORDNANCE

Telescope on Gun Mount Records Flight of V-2's

► THE ART of war has married the science of astronomy, to bring forth a strange-looking instrument used in keeping accurate track of the guided missiles now under research at White Sands, in the New Mexico desert. It consists of a 16-inch reflecting telescope, almost identical, except for size, with the latest telescopes used for photographing distant stars and galaxies, set on the mount of a 90-millimeter anti-aircraft gun. The strange-looking hybrid was demonstrated at the Army Ordnance Proving Ground before the Army Ordnance Association.

It will be trained on V-2 rockets, and on the newer American missiles that will ultimately supersede them, and will record the whole course of their meteor-like flight on the film of a motion-picture camera that takes the place of the still-photograph plates used by astronomers. It is claimed that it will register changes of direction as small as a couple of inches at several score miles.

For the explosive war-heads that these and other missiles will carry, ordnance researchers are working on what they

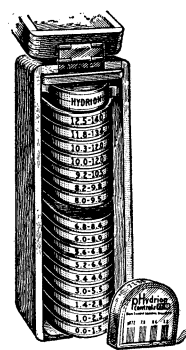
call controlled fragmentation. This means that they will burst in such a manner as to drive their whizzing fragments through the targets for which they are intended, and not scatter them at random all over the neighborhood. In a demonstration, a miniature war-head was exploded before a half-circle of seven targets. It put one fragment through the bull's eye of each target—and none anywhere else.

One ballistics instrument, intended for the measurement of bullet and shell velocities by letting them pass in succession over two photocells, was set up so that the visitors could measure the speed of baseballs pitched by themselves. Most of their pitches sped toward the plate at between 90 and 100 feet per second. An ordnance officer present stated that the instrument had been tried recently on Bob Feller. His speed is around 140 feet a second; but when sports writers call the speed of even this top-flight pitcher "bullet-like" they are speaking only in a figurative sense, for modern rifle bullets have muzzle velocities of 2,000 feet a second or higher.

Science News Letter, October 11, 1947

19

Hydrion pH Papers In One Compact Case



This new variety of sensitive pH papers offers a sharp color change within 0.25 pH unit of almost any point of interest from pH 0 to 14.

Hydrion test papers are so simple, so accurate, now so nearly universal, that this Set H-20 should be in the hands of every worker making pH measurements in laboratory or plant.

Price: Complete Set H-20, \$20

Write for Price List of the separate Test Papers

R. P. CARGILLE

114-C Liberty Street New York 6, N. Y.