

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. Steel, N. W., Washington 6, D. C. Request free publications direct from publisher, not from Science Service.

ANALYTICAL MICROSCOPY: Its Aims and Methods in Relation to Foods, Water, Spices and Drugs—T. E. Wallis—*Little, Brown*, 2nd ed., 215 p., illus., \$5.50. Providing an account of the methods of preparation of materials for microscopical examination. The problems described cannot be completely solved by purely chemical investigation, but require the use of a microscope to observe morphological characters.

BAMBOOS OF THE GENUS PHYLLOSTACHYS UNDER CULTIVATION IN THE UNITED STATES—F. A. McClure—*Govt. Printing Office, U.S.D.A., Agriculture Handbook No. 114*, 69 p., illus., paper, 35 cents. Designed for those who are interested in this group of hardy plants, this handbook provides a key for the field identification, without flowers or fruits, of the 34 bamboos of this genus.

THE EFFECTS OF THE SULFONYLUREAS AND RELATED COMPOUNDS IN EXPERIMENTAL AND CLINICAL DIABETES—Rachmiel Levine, Ed.—*New York Academy of Sciences, Annals Vol. 71, Art. 1*, 292 p., illus., paper, \$4.00. These drugs, says the editor, "convenient and valuable as they may prove to be, do not relieve the physician or the patient from the obligation to exercise strict dietary control, nor do they free the diabetic from learning to use insulin in an intelligent manner."

FISCHER-TROPSCH SYNTHESIS MECHANISM STUDIES: The Addition of Radioactive Ethanol to the Synthesis Gas—R. J. Kokes, W. Keith Hall and P. H. Emmett—*Mellon Institute*, 8 p., graphs, paper, free upon request to publisher, 4400 Fifth Ave., Pittsburgh 13, Pa.

GENERAL ZOOLOGY—Tracy I. Storer and Robert L. Usinger—*McGraw-Hill*, 3rd ed., 664 p., illus., \$7.50. A general introduction to zoology for college students, with an extensive section providing a detailed survey of the groups of the animal kingdom from the one-celled protozoa to man.

IMPLANT DENTURES: Indications and Procedures—Aaron Gershkoff and Norman I. Goldberg, with foreword by Irving R. Hardy—*Lippincott*, 256 p., illus., \$12.00. For the general practitioner of dentistry, the oral surgeon and the prosthodontist.

THE LIVING ROCKS—Stévan Célébonovic, photographer, with commentary by Geoffrey Grigson and preface by André Maurois, translated by Joyce Emerson and Stanley A. Pocock—*Philosophical Library*, 94 p., illus., \$6.00. A book of gorgeous photographs showing designs of nature as revealed in fossils and minerals.

MECHANISM STUDIES OF THE FISCHER-TROPSCH SYNTHESIS: The Addition of Radioactive Methanol, Carbon Dioxide and Gaseous Formaldehyde—W. Keith Hall, R. J. Kokes and P. H. Emmett—*Mellon Institute*, 7 p., graphs, paper, free upon request to publisher, 4400 Fifth Ave., Pittsburgh 13, Pa.

MEDICAL WRITING: The Technic and the Art—Morris Fishbein—*Blakiston*, 3rd ed., 262 p., illus., \$7.00. The Latin terminology and the proofreading section have been revised, additional degrees and titles are given and the journal lists have been brought up-to-date in this book by a former editor of *The Journal of the American Medical Association*.

THE NORTH AMERICAN DESERTS—Edmund C. Jaeger—*Stanford University Press*, 308 p., illus., paper, \$5.95. A guide to the flora and fauna and other wonders of our five deserts, which together extend from central Mexico almost to the border of Canada.

PHOTOGRAMMETRY AND AERIAL SURVEYS: A Symposium—William T. Pryor and others—*Highway Research Board, Bulletin 157*, 59 p., illus., paper, \$1.00. Papers on the use of aerial surveys and photogrammetry in highway location and design.

THE RISE OF MODERN PHYSICS—C. F. Van Weizsacker and J. Juilfs, translated by Arnold J. Pomerans—*Braziller*, 150 p., illus., \$3.75. A survey of modern physics, its historical origins in classical physics and the problems of future development are presented for the layman with some knowledge of physics.

THE ROCKEFELLER INSTITUTE QUARTERLY: Vol. I, No. I—Charles I. Campbell, Ed.—*Rockefeller Institute for Medical Research*, quarterly, 8 p., paper, \$1.50 per year. Providing information on the activities of the Institute as well as plans for the future.

THE SAWMILL SITE: A Reserve Phase Village, Pine Lawn Valley, Western New Mexico—Elaine A. Bluhm—*Chicago Natural History Museum, Fieldiana, Anthropology, Vol. 47, No. 1*, 86 p., illus., paper, \$2.25. Excavation at this site has revealed a rectangular ceremonial room with an L-shaped pueblo of perhaps eight or ten rooms on the west side.

SHADOWS—Larry Kettelkamp—*Morrow*, 64 p., illus., \$2.50. Telling children the fascinating story about the use of shadows in astronomy, medicine and aerial photography, and explaining activities and games making use of shadows.

A STUDY OF NAVAJO SYMBOLISM—Franc Johnson Newcomb, Stanley Fishler and Mary C. Wheelwright—*Peabody Museum, Papers, Vol. XXXII, No. 3*, 100 p., illus., paper, \$5.00. Symbolism of the Navajos as expressed in sand painting, ritual objects and picture writing, comparing these symbols with corresponding ones in various parts of the world.

THERMODYNAMIC PROPERTIES OF THE ELEMENTS—Staff of Industrial and Engineering Chemistry—*American Chemical Society*, 234 p., \$5.00. Giving tabulated values of the heat capacity, heat content, entropy and free energy function of the solid, liquid and gas states of the first 92 elements for the temperature range 298 to 3000 degrees K.

Science News Letter, August 31, 1957

EDUCATION

Foundation Grant Sets Up Shorter Medical Course

➤ TWENTY MEDICAL students at Johns Hopkins University will become doctors two years before their fellow classmates under a new type of medical education program.

The Baltimore, Md., medical school is experimenting with the new pattern for training physicians in an attempt to close the widening gap between the number of doctors available and the demands for medical care being created by a booming population. The program is being made possible by a \$2,500,000 grant from the Rockefeller Foundation, the Foundation has announced.

Under the program, a student will devote most of his first two years in college to the humanities and social sciences and then begin his premedical training in his junior year. During the junior year, the student

will get heavy doses of advanced chemistry, mathematics, elementary physics and genetics. His next three years will consist of "redesigned courses" in the medical sciences.

Johns Hopkins will try the program with 20 selected students while their classmates continue on the standard course. The school is also being aided financially in its experiment by The Ford Foundation, the Commonwealth Fund and the U. S. Public Health Service.

The Rockefeller grant was one of several, totaling \$15,093,784, given out by the Foundation for the second quarter of 1957. The grants covered such diverse fields of study as research on preserving sound recordings sponsored by the Library of Congress to a Japanese study of the origin of cultivated rice.

Science News Letter, August 31, 1957

EDUCATION

Science Enrollments Show First Rise in 50 Years

➤ THE FIRST INCREASE in the percentage of young Americans enrolled in high school science and mathematics courses since 1910 took place last fall. This has been reported by the Office of Education of the U. S. Department of Health, Education and Welfare.

The rise, although slight, indicates an increased interest in science and mathematics, the Office noted, and has special significance "at a time when rapidly expanding technology, rising standards of living and increasingly complex military needs create a demand for more scientific manpower."

One possible reason for the first reversal in nearly half a century was due in part to the fact that more and more schools have been offering courses in science and mathematics.

Until last fall, the Office's study shows, the percentage of young Americans taking science and mathematics courses has been on the decline. This has been true even though the actual number of students enrolled in these courses has increased steadily and is now at its highest mark.

The study, to be released in full in a few months, also showed:

1. The percentage of public high schools offering courses in chemistry and physics to seniors rose from 77% in 1954 to 82% last year.

2. Schools offering plane geometry to 10th grade pupils rose from 78% to 81%.

3. Wide regional variations in enrollments in science and mathematics can be found. For example, 90% of the 10th grade pupils in the South Atlantic regions study biology, whereas only 65% take biology in the Pacific Coast states.

4. The percentage of students taking algebra rose from an all-time low of 24.6% in 1952 to 28.7% in 1956.

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The spores or "seeds" of corn smut are carried by the wind from soil or plant debris, and landing on young corn shoots, cause galls or swellings.