

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.

ANALYTIC GEOMETRY AND CALCULUS—Frank L. Juszli—*Prentice-Hall*, 348 p., \$6.75. Presents basic calculus, emphasizing techniques and graphical approach rather than abstract theory.

AN ANNOTATED BIBLIOGRAPHY OF INFLUENZA, Vol. I, No. 1, September 1960—*Medical Documentation Service—ALBS*, 20 p., quarterly, single copy, \$2. Bibliographical record of articles published on influenza and related subjects in U. S. and foreign periodicals.

THE ARDEN HOUSE CONFERENCE ON TUBERCULOSIS—National Tuberculosis Association and U. S. Public Health Service—*GPO*, 68 p., paper, 45¢. Presents conference recommendations and highlights, with background figures and tables.

THE BOOK OF SCIENTIFIC DISCOVERY: How Science Has Aided Human Welfare—D. M. Turner, foreword by Charles Singer—*Barnes & Noble*, 3rd rev. ed., 301 p., illus., paper, \$1.75. Shows in outline how some parts of our present scientific knowledge have grown, from the Middle Ages to the age of rockets, cyclotrons and automation.

COOPERATIVE WEATHER OBSERVER—Weather Bureau—*GPO*, 116 p., illus., paper, 65¢. Explains the part played by voluntary observers in recording the climate of this country. (See SNL, 79:42, 1961).

ELECTROMAGNETIC FIELDS AND WAVES—Robert V. Langmuir—*McGraw*, 227 p., \$9.75. Intended for senior or first-year graduate level, familiarizes student with the meaning and con-

tent of Maxwell's equations, and such subjects as waveguides, cavities and antennas.

ELECTRONICS FOR CHILDREN—Gabriel Reuben—*Sterling*, 88 p., illus. by Bernard Case, \$2.50. Teaches through experimenting.

FLORA OF PERU—J. Francis Macbride—*Field Mus.*, 316 p., paper, \$6. Number two of Volume XIII, Part V, of Botanical Series, Field Museum of Natural History.

FUNDAMENTAL PHYSICS—Jay Orerar—*Wiley*, 381 p., illus., \$6.75. Using new approach to present basic principles for the non-physicist and the liberal-arts student, book demands reasoning on every page, and develops understanding in logical sequences. New in format as well as in content.

FUNDAMENTAL PRINCIPLES OF BACTERIOLOGY—A. J. Saller—*McGraw*, 5th ed., 812 p., illus., \$11. Completely rewritten and brought up to date, emphasizes the use of chemistry for a clearer understanding of the composition of bacteria and the reactions they produce.

A GATHERING OF SHORE BIRDS—Henry Marion Hall; Roland C. Clement, Ed.—*Devin-Adair*, 242 p., illus. by John Henry Dick, \$10. Handsome book, emphasizing the typical species of American shorebirds, blends the scientific with the popular.

GREAT SMOKY MOUNTAINS NATIONAL PARK: North Carolina and Tennessee—Arthur Stupka—*National Park Service (GPO)*, 75 p., illus., map, paper, 55¢. Natural history handbook of a region exceptionally rich and varied in vegetation, including primeval forests.

HANDBOOK OF NOISE MEASUREMENT—Arnold P. G. Peterson and Ervin E. Gross, Jr.—*General Radio Co.*, 4th ed., 132 p., illus., paper, \$1. Covers measurements of noise and vibration, describes equipment, procedures and interpretation of results of acoustical measurements.

HOUSING A METROPOLIS: Chicago—Beverly Duncan and Philip M. Hauser—*Free Press*, 278 p., \$7.50. Monograph analyzes current housing conditions in Chicago, explores pattern of recent changes and compares these with characteristics in other major metropolitan areas.

THE HUMAN FRAME—Giovanna Lawford, foreword by Margaret Mead—*Doubleday*, 109 p., illus. by author, paper, 95¢. Beautiful detailed drawings of the human bone structure.

HUMAN NUTRITION: Historic and Scientific—Iago Galdston, Ed.—*International Univ. Press*,

321 p., \$6. Presents new material about progress in nutrition, including comparisons of food habits of Alaska, Latin America, China and India, relating nutritional progress to social and historical factors which aid or impede its growth.

INTERNATIONAL EDUCATION IN PHYSICS: Proceedings of the International Conference on Physics Education, Unesco House, Paris, 1960—Sanborn C. Brown and Norman Clarke, Eds.—*Wiley*, 191 p., \$4.50. A world view of physics education, of examinations, selection of students, laboratory work, training of teachers, physics for non-physicists, use of television, and teaching of mathematics.

LABORATORY MANUAL IN PRINCIPLES OF BIOLOGY AS ILLUSTRATED BY ANIMALS—Howard J. Stains—*Burgess*, 127 p., illus., paper, \$2.50. Provides material for four hours of laboratory work per week.

LINEAR SYSTEMS ANALYSIS: An Introduction to the Analysis of Discrete-Parameter Time-Invariant Linear Systems—Paul E. Pfeiffer—*McGraw*, 538 p., \$12.50. Provides fundamentals of theory as applied to passive linear circuits, linear servomechanisms and mechanical vibrating systems.

MECHANICAL WAVEGUIDES: The Propagation of Acoustics and Ultrasonic Waves in Fluids and Solids with Boundaries—Martin Redwood—*Pergamon*, 300 p., \$9. Introduction to the properties of guided waves, with survey of the more important recent research.

THE MICROSCOPE AND HOW TO USE IT—Georg Stehli—*Sterling*, 160 p., illus., \$3.95. A methodical, fully illustrated guide to discovering new worlds by microscopic examination.

MODERN TRIGONOMETRY—Dick Wick Hall and L. O. Kattsoff—*Wiley*, 236 p., illus., \$4.95. Elementary text, analytic in approach and emphasizing the ability to reason about the trigonometric functions.

OLD FATHER: The Story Teller—Pablita Velarde—*King, Dale Stuart*, 67 p., illus. by author, \$7.95. Tribal legends written and handsomely illustrated by Pueblo Indian artist.

RADIATION RESEARCH IN THE LIFE SCIENCES: Current Projects in the United States and Throughout the World—Committee on Government Operations, U. S. Senate—*GPO*, 175 p., paper, 55¢. Information on the magnitude, organization and distribution of current research programs, fully indexed.

RELIGION & SCIENCE—Bertrand Russell—*Oxford Univ. Press*, 256 p., paper, \$1.25. First published in 1935.

REPRESENTATIVE CHORDATES: A Manual of Comparative Anatomy—Charles K. Weichert—*McGraw*, 2nd ed., 218 p., illus., \$4.25. Designed for use as a laboratory manual in one-semester courses in comparative anatomy of the vertebrates.

A REVISION OF CEDRELA (MELIACEAE)—C. Earle Smith, Jr.—*Chicago Natural Hist. Mus.*, 46 p., illus., 14 plates, paper, \$1.75. Treats only the American species of Spanish cedar.

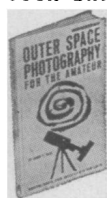
SCIENCE IS FUN. SCIENCE IS LEARNING. SCIENCE IS EXPLORING.—Wilbur B. Beauchamp—*Scott, Foresman & Co.*, 112 p., 128 p., 168 p., illus., \$2.20, \$2.44, \$2.68. Basic science program for grades 1, 2 and 3, with teachers' editions available.

STUDY ABROAD: New Dimensions in Higher Education, No. 6—Irwin Abrams—*GPO*, 21

IDENTIFY ANY TREE!

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p., paper, 15¢. Evaluation of program patterns and effectiveness of study programs abroad.

TEXTILE HANDBOOK—Dorothy S. Lyle and others—*Am. Home Economics Assn.*, 108 p., illus., paper, \$1.25. Covers textiles from fiber through finished fabric, including the newer man-made fibers and finishes used on all fibers.

• Science News Letter, 79:60 January 28, 1961

ARCHAEOLOGY

Dead Sea Scrolls Found To Be 60 Years Older

► **DUE TO** a more accurately determined half-life for carbon-14, the famed Dead Sea Scrolls have been found to be 60 years older than previously believed. They are now dated to about 20 B.C. instead of 40 A.D. W. B. Mann and W. F. Marlow of the National Bureau of Standards redetermined the half-life of carbon-14. Using improved technique and better gas counters, they found that the half-life of this element is 5,760 years instead of the previously accepted value of 5,568 years. Carbon-14 is the "atomic clock" used for dating objects of geological and archaeological significance.

• Science News Letter, 79:60 January 28, 1961

PUBLIC HEALTH

British Avoid Atomic Contamination

► **"IMMENSE TROUBLE"** is being taken in Great Britain to avoid radioactive contamination from atomic development, Sir George Thomson, Nobel Prize winning British physicist, told **SCIENCE SERVICE**.

The limit of man-made radioactive contamination allowed in the Thames River from radioactive waste disposal is less than that naturally present in New York water sources, Sir George said. This estimate, he said, was given him by Sir John Cockcroft, the British Nobel physicist who received the 1961 Atoms for Peace Award.

However, except from an atomic war, the greatest danger of radioactive contamination is from a nuclear reactor accident and from

disposal of radioactive wastes. Although there are bound to be accidents, the British physicist said, working in an atomic plant is not a hazardous occupation, based on the record so far.

"Compared with the general level of industrial accidents, particularly in the chemical industry, the accident level in atomic plants in Great Britain has been very low, even if one includes the accident at Windscale," he said. (The accident resulted from the overheating of a radioactive pile and caused contamination of milk and dairy supplies in surrounding areas. However, not one of the 3,000 workers nor any of the nearby residents were visibly affected.)

Sir George also believes that fear of genetic damage from fallout also may be greatly exaggerated. He said that if genetic damage is serious, miscarriage rather than abnormal birth would be most likely to be the result.

• Science News Letter, 79:60 January 28, 1961

GEOPHYSICS

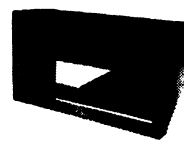
International Scientific Programs Planned

► **FUTURE INTERNATIONAL** scientific programs for studying the sun's activities, the earth's magnetic field and its interior are being planned by the Comité International de Géophysique, Paris, France. The committee is the successor to the Special Committee for the International Geophysical Year. Future studies include charting the earth's magnetic field in 1965 (World Magnetic Survey) and observing the cosmic rays and "northern lights" resulting from eruptions on the sun (Solar Activity Minimum Programme). Another future program will be a study of the mantle of rock directly beneath the earth's crust. Drilling will probe into the deep layers to determine the mantle's role in developing the earth's crust.

• Science News Letter, 79:60 January 28, 1961

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