

# 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.

ABSTRACTS FOR 1961—*Geological Society of America*, 322 p., paper, \$2. Abstracts of papers submitted for six meetings with which the Society was associated.

ADVANCES IN MATHEMATICS, Vol. 1, Fascicle 1, 1961—Herbert Busemann, Ed.—*Academic Press*, 102 p., paper, \$3.80. Expository articles on theory of connection and holonomy groups, and on Banach algebras and analytic functions.

ATOMIC SCIENCE, BOMBS AND POWER—David Dietz—*Collier Bks*, rev. ed., 254 p., illus., paper, 95¢. Attempts to give the general reader a clear and organized picture of atomic energy and its uses.

BASIC SCIENCE HANDBOOK K-3—Wilbur L. Beauchamp and Helen J. Challand—*Scott*, 352 p., illus., \$3.20. Basic background information and new ideas and approaches for elementary school teachers.

BEACON SCIENCE SERIES: Flowers-Carriers of Life. Magnets. The Leafy Home of the Birds. Rockets that Captured History (Fossils). Water: Its Form and Motion. The Endless Sky. Hands. New England Shores—E. Marie Boyle and others—*Beacon Press*, 30 p. each, photographs, \$1 each; paper, 75¢ each, \$4.50 set of eight. Designed to interest children in the wonders of nature and science.

THE BIG DIG: A Frontier Fort Comes to Life—Dirk Gringhuis—*Dial Press*, 36 p., illus. by author, \$2.75. Tells young reader about an archaeological expedition.

THE BIG HUNT: A Museum Exhibit Comes to Life—Dirk Gringhuis—*Dial Press*, 37 p., illus. by author, \$2.75. For boys and girls.

BIRDS OF THE CROW FAMILY—Olive L. Earle—*Morrow*, 64 p., illus. by author, \$2.75. For young children.

CHAN KOM: A Maya Village—Robert Redfield and Alfonso Villa Rojas—*Univ. of Chicago Press*, 236 p., illus., paper, \$1.50. Reprint (1934).

THE CHEMISTRY OF URANIUM: The Element,

Its Binary and Related Compounds—Joseph J. Katz and Eugene Rabinowitch—*Dover*, 609 p., illus., paper, \$2.95. Unabridged reprint of book published in 1951, based on research work done under the Manhattan Project.

CREATIVITY AND INTELLIGENCE: Explorations with Gifted Students—Jacob W. Getzels and Philip W. Jackson—*Wiley*, 293 p., \$6.50. Case studies with comparisons between adolescents with high scores in creativity and intelligence tests, and those with high scores in tests of morality and adjustment.

THE ECOLOGY OF ALGAE: Symposium Held at Pymatuning Laboratory of Field Biology, 1959—C. A. Tryon, Jr. and R. T. Hartman, Eds.—*Univ. of Pittsburgh*, 96 p., illus., \$2. Emphasis is on fresh-water algae and environmental relationships.

THE ELECTROCHEMISTRY OF SEMICONDUCTORS—P. J. Holmes, Ed.—*Academic Press*, 396 p., illus., \$12. Subject is treated from the point of view of the fundamental solid-state physicist, the semiconductor physicist, the chemist and the technologist.

ELECTROMAGNETICS—Robert M. Whitmer—*Prentice-Hall*, 2nd ed., 357 p., illus., \$13. Emphasis is on the field-theoretical point of view, the text is on advanced undergraduate level.

EVOLUTION AND MAN'S PROGRESS—Hudson Hoagland and Ralph W. Burhoe, Eds.—*Columbia Univ. Press*, 180 p., \$4. Group of scholarly essays exploring problems in the biological and behavioral sciences in the light shed by evolutionary theory as it applies to man.

EXPERIENCE AND PREDICTION: An Analysis of the Foundations and the Structure of Knowledge—Hans Reichenbach—*Univ. of Chicago Press*, 408 p., paper, \$1.95. Reprint (1938).

THE FIRST BOOK OF THE UNITED NATIONS—Edna Epstein—*Watts, F.*, rev. ed., 94 p., illus., \$1.95. Explains the organization of the U.N. to young readers.

FLORA OF GUATEMALA—Paul C. Standley and Louis O. Williams—*Chicago Nat. Hist. Mus.*, 94 p., illus., paper, \$2.50. Fieldiana: Botany, Vol. 24, Part VII, No. 2.

FREE AND INEXPENSIVE LEARNING MATERIALS—*Peabody College, Div. of Surveys & Field Services*, 11th ed., 278 p., paper, \$1.50. Listed by subjects, includes science.

A HISTORY OF THE ELECTRICAL ACTIVITY OF THE BRAIN: The First Half-Century—Mary A. B. Brazier—*Macmillan*, 119 p., illus., \$4.50. The development of electrophysiology from 1875 to the discovery of the electroencephalogram in man.

HOW TO CONTROL PLANT DISEASES IN HOME AND GARDEN—Malcolm C. Shurtleff—*Iowa State Univ. Press*, 520 p., illus., \$4.95. Provides identification and control measures for more than 4,600 diseases of 2,200 species of house and yard plants.

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JOURNAL OF THE ATMOSPHERIC SCIENCES, January 1962—Robert Jastrow and Norman A. Phillips, Eds.—*Am. Meteorological Soc.*, 120 p., illus., paper, \$4; bimonthly, \$15 per year. Formerly the *Journal of Meteorology*, beginning with Vol. 19, No. 1, will publish research related to the atmospheres of the earth and other planets, with emphasis on quantitative and deductive aspects.

LABORATORY PROBLEMS IN GENERAL CHEMISTRY—Howard Nechamkin—*Crowell*, 3rd ed., 361 p., illus., paper, \$3.25. Revised manual of experiments designed to teach principles.

THE LEGACY OF HIROSHIMA—Edward Teller with Allen Brown—*Doubleday*, 325 p., \$4.95. Discusses the influence that atomic explosives have on all questions of war and peace, stressing the author's conviction that nuclear weapons "do not mean the end of the world, but they do mean the end of non-nuclear power."

LET'S FIND OUT ABOUT WHEELS—Martha and Charles Shapp—*Watts, F.*, 42 p., illus. by Peter Costanza, \$1.95. For the youngest readers.

LINKS OF LIFE: The Story of Heredity—L. J. Ludovici—*Putnam*, 160 p., illus., \$3.50. Surveys for young people the development of man's understanding of genetics.

LIVE: A Handbook of Survival in Nuclear Attack—Rogers S. Cannell—*Prentice-Hall*, 131 p., illus., \$4.95; paper, \$1.95. Stanford Research Institute's version of what the average citizen can do to try to protect his family in case of nuclear war.

MATHEMATICAL METHODS FOR TECHNOLOGISTS—Margaret Strain—*Van Nostrand*, 584 p., \$9.75. Textbook teaching principles and techniques of mathematics as a practical tool in industry.

MEANINGFUL MATHEMATICS TEACHING—Aaron Hankin—*Teachers Practical Press*, 62 p., paper, \$1.75. Suggestions for beginning secondary school teachers.

MECHANICAL ENGINEERING FOR PROFESSIONAL ENGINEERS' EXAMINATIONS: Including Questions and Answers for Engineer-in-Training Review—John D. Constance—*McGraw*, 447 p., illus., \$10.

MONSOON ASIA—E. H. G. Dobby—*Quadrangle Bks*, 381 p., photographs, maps, \$5.95. Compact and up-to-date introduction to the physical and human Asian geography stretching from India to Indonesia to Japan and coastal China.

THE NEW AMERICAN MEDICAL DICTIONARY AND HEALTH MANUAL—Robert E. Rothenberg—*New Am. Lib.*, 432 p., illus. by Sylvia and Lester V. Bergman, paper, 95¢. More than 7,500 definitions of medical terms, features first-aid section, charts and tables.

NOTES ON QUANTUM MECHANICS—Enrico Fermi—*Univ. of Chicago Press*, 171 p., paper, \$1.50. A course given by the Nobelist in 1954, reproduces his own hand written notes.

PHOTO GEOLOGY—Victor C. Miller with Calvin F. Miller—*McGraw*, 248 p., illus., \$13.50. Text on the mechanics of aerial photography and on the principles of photographic interpretation, with many illustrations and exercises.

THE PHYSIOLOGY OF FLOWERING—William S. Hillman—*Holt*, 164 p., illus., \$4.50. Designed to inform the mature student of the outstanding advances in research on photo-periodism, and processes affecting initiation and early development of flowers in particular.

THE PRINCIPLES OF ELECTROCHEMISTRY—Dun-

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can A. MacInnes—*Dover*, 478 p., illus., paper, \$2.35. Reprint (1939).

THE PROGRESS AND EVOLUTION OF MAN IN AFRICA—L. S. B. Leakey—*Oxford Univ. Press*, 53 p., illus., \$2.25. Two lectures comparing the recent anthropological finds of early man at Olduvai Gorge with relics of near man and early man elsewhere.

PROBLEMS IN QUANTUM THEORY OF MANY-PARTICLE SYSTEMS: A Lecture Note and Reprint Volume—L. Van Hove, N. M. Hugenholtz and L. P. Howland—*Benjamin, W. A.*, 249 p., paper, \$3.50. For physicists.

QUESTIONS OF PHYSICS OF THE ATMOSPHERE (Votrozy Fiziky Atmosfery)—N. S. Shishkin and others, transl. by the American Meteorological Society—*Am. Meteorological Soc.*, 140 p., illus., paper, \$5. Translation of Transactions No. 82, of the A. I. Voikov Main Geophysical Observatory, Leningrad, 1958.

RESEARCHES ON METEORITES—Carleton B. Moore, Ed.—*Wiley*, 227 p., illus., \$7. Reviews current status of research in such areas as rare gases in iron meteorites and record of cosmic-ray intensity in meteorites.

RESONANCE RADIATION AND EXCITED ATOMS—Allen C. G. Mitchell and Mark W. Zemansky—*Cambridge*, 338 p., \$6; paper, \$2.95. Reprint of 1934 edition.

SCIENCE IN THE MAKING—Joel H. Hildebrand—*Columbia Univ. Press.*, 116 p., illus., paper, \$1.25. Reprint (1957) of four essays.

THE SCIENCE OF DAYLIGHT—John W. T. Walsh—*Pitman*, 285 p., diagrams, \$7.75. Brings together results of scientific studies of natural lighting conditions, of value to the research worker and practical designer.

SPACE ATLAS—U.S. Naval Institute—*Am. Map Co.*, 50 p., illus., paper, \$1.25. Secondary school level description of the universe, solar system, moon, earth in space and explorations.

STARTING A TERRARIUM—Miriam Gilbert—*Hammond*, 45 p., illus., \$1. Encourages children to observe nature close at hand.

STATIC FIELDS IN ELECTRICITY AND MAGNETISM—D. H. Trevena—*Butterworths*, 255 p., \$6.50. Textbook on electrostatics, magnetism and the magnetic fields of steady electric currents.

STEREOTYPE OF IMAGERY AND BELIEF AS AN EGO DEFENCE—Rosemary Gordon—*Cambridge*, 96 p., paper, \$4.50. Investigates the conditions which favor stereotyped mental constructs and judgments based upon them.

STUDY AND SUCCEED—Lyle Tussing—*Wiley*, 157 p., illus. by C. Schlerf, paper, \$2.95. Designed to aid students to become efficient scholars.

A STYLE MANUAL FOR TECHNICAL WRITERS AND EDITORS—S. J. Reisman, Ed.—*Macmillan*, multi-paged, illus., \$8. Practical handbook discusses the effective preparation of research report, proposal, journal article and technical manual.

THE SUBSTANCE OF MAN—Jean Rostand, transl. from French by Irma Brandeis—*Double-day*, 298 p., \$4.95. Biologist's notebook of thoughts, typical of which is, "Morality of the geneticist: evil is dominant, good recessive."

SUMMARIES OF PAPERS ON MATHEMATICS AND RELATED SUBJECTS FROM THE HONORS GROUP IN THE 20TH ANNUAL WESTINGHOUSE SCIENCE TALENT SEARCH, 1961—Compiled by Mu Alpha Theta—*Wakefield High School*, 10 p., paper, 25¢ direct to publisher, Arlington 6, Va.

SURVEY OF BIOLOGICAL PROGRESS, Vol. IV—Bentley Glass, Ed.—*Academic Press*, 465 p., \$10. On animal taxonomy and the new systematics, infectious ribonucleic acid, and on practical and experimental aspects of antibiotics.

THE SWEEPING WIND: A Memoir—Paul deKruif—*Harcourt*, 270 p., \$5.95. Personal recollections by popular science writer.

SYMPOSIUM OF NONDESTRUCTIVE TESTING IN

THE MISSILE INDUSTRY—*Am. Soc. for Testing Materials*, No. 278, 71 p., illus., \$2. Radiography of rocket motors, high-energy radiography, and ultrasonic standards are discussed.

TABLES OF INDEFINITE INTEGRALS—G. Petit Bois—*Dover*, 151 p., paper, \$1.65. New English translation of work published by B. G. Teubner in 1906.

TAXONOMY OF SETARIA (GRAMINEAE) IN NORTH AMERICA—James M. Rominger—*Univ. of Ill. Press*, 132 p., illus., \$4; paper, \$3. Systematic treatment, with keys.

TEACHING ELEMENTARY ARITHMETIC—Cleata B. Thorpe—*Harper*, 412 p., illus., \$6.50. Stresses developmental teaching and ways to get pupils themselves to work out arithmetical relationships.

THEORETICAL GEOMORPHOLOGY—Adrian E. Schneidegger—*Prentice-Hall*, 333 p., illus., \$18. Mathematical treatment of the surface features of the earth.

THERMOELECTRICITY: An Introduction to the Principles—D. K. C. MacDonald—*Wiley*, 133 p., \$6.50. For experimental physicists in work connected with electron transport and theoreticians who might wish survey of thermoelectricity.

THIS IS A LEAF—Ross E. Hutchins—*Dodd*, 121 p., photographs by author, \$3. Handsome and readable book about shape, biology and chemistry of leaves.

TRANSPLANTATION OF TISSUES AND CELLS—R. E. Billingham and Willys K. Silvers, Eds. *Wistar Institute Press*, 149 p., illus., \$7.50. Monograph presents procedures and principles for use in experimental transplants and for the analysis of immunological responses the grafts may provoke.

TREATISE ON SEDIMENTATION, Vols. I and II—William H. Twenhofel—*Dover*, 2nd ed., 926 p., illus., paper, \$2.35 each. Reprint.

VOLCANO!—Walter Buehr—*Morrow*, 95 p., illus. by author, \$3. For boys and girls.

THE WONDERS OF NATURE—Esther Singelton, Ed.—*Public Affairs Press*, 366 p., illus. by Ron Jones, \$4.50. Selections from the literature of great writers, such as descriptions of Niagara Falls by Anthony Trollope and Charles Dickens.

WORLD MEDICAL PERIODICALS—C. H. A. Fleurent; H. A. Clegg, Ed.—*World Medical Assn.*, 3rd ed., 407 p., \$7. Thoroughly revised and expanded, lists alphabetically titles with publishers' addresses of 5,800 periodicals, also indexed by subject and country.

THE WORLD OF LEARNING, 1961-62—*Europa*, 12th ed., 1359 p., \$23.50. Up-to-date guide to the world's scientific, educational and cultural institutions, listed by country, including names of officers and professors, with alphabetical index.

THE YOUNG PATHFINDER'S BOOK OF OCEANS, STREAMS AND GLACIERS—William D. Clarke—*Hart*, 128 p., illus. by Hilda Simon, \$3.95. Marine biologist's book for young readers.

• Science News Letter, 81:156 March 10, 1962

## Questions

ASTRONOMY—How high above the earth is a new balloon observatory scheduled to fly? p. 148.

MEDICINE—How far back was occupational lung cancer reported in Czechoslovakian uranium mines? p. 154.

SPACE—Why could the glowing particles seen by Astronaut Glenn not have been paint from the space capsule? p. 151.

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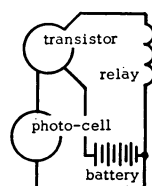
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