

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.

ANIMAL CLOCKS AND COMPASSES: From Animal Migration to Space Travel—Margaret O. Hyde—*Whittlesey-House*, 157 p., illus. by P. A. Hutchison, \$2.95. Includes project ideas for young people who want to experiment.

BECOMING MORE CIVILIZED: A Psychological Exploration—Leonard W. Doob—*Yale Univ. Press*, 333 p., \$6. Scholarly inquiry into how the beliefs, values, personalities and behavior of people in nonliterate societies are affected by contact with Western civilization.

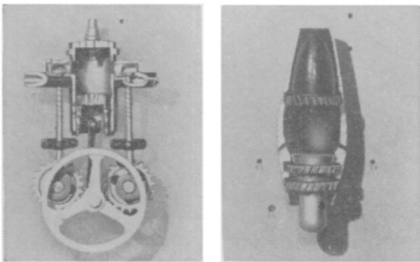
THE BIOLOGY OF AGING: Symposium—Bernard L. Strehler, Ed.—*AIBS*, 364 p., illus., \$7.75. Revised papers and discussions of 1957 Conference investigating the basic mechanisms underlying the gross phenomenon of aging.

CALL OF THE ARCTIC: Robert Steelman—*Coward-McCann*, 316 p., \$5. Fictionalized story of the American amateur explorer who led three expeditions to the Arctic between 1860 and 1871.

THE CHILD WITH MONGOLISM (Congenital Acromicria)—Clemens E. Benda—*Grune & Stratton*, 276 p., 85 illus., \$9.50. Based on 25 years of research, brings together what is known about the diagnosis, anatomy and nervous system, hematology and etiology of mongoloid children.

CLASSICS IN BIOLOGY: A Course of Selected Reading by Authorities—Walter Robert Matthews and others, introd. reading guide by Sir S. Zuckerman—*Philosophical Lib.*, 351 p., \$6. Writings on the unity and the diversity of life, and on biology and health.

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CLASSICS IN SCIENCE: A Course of Selected Reading by Authorities—Karl Pearson and others, introd. by E. N. Da C. Andrade—*Philosophical Lib.*, 322 p., \$6. Includes biographical notes.

COMPARATIVE EFFECTS OF RADIATION: Milton Burton, J. S. Kirby-Smith and John L. Magee, Eds.—*Wiley*, 426 p., illus., \$8.50. Latest findings by radiation biologists, chemists and physicists, presented at NAS-NRC conference held in Puerto Rico, February 1960.

DENTISTRY IN THE UNITED STATES: Status, Needs and Recommendations—Commission on the Survey of Dentistry in the U. S.; Byron S. Hollinshead, Dir.—*Am. Council on Educ.*, 68 p., paper, \$1. Results of extensive survey of U. S. dental health, practice, education and research.

THE EDUCATOR . . . AND THE ATOM: A Report on the Symposium on Nuclear Education—Sanborn C. Brown, Chmn.—*Baird-Atomic, Inc.*, 46 p., illus., paper, single copies free upon request direct to publisher, 33 University Road, Cambridge 38, Mass. Discusses the role of radioisotopes, their use in schools, federal programs and laboratory experiments.

THE FOUNDATIONS OF ARITHMETIC: A Logico-Mathematical Inquiry into the Concept of Number—Gottlieb Frege, transl. from German by J. L. Austin—*Harper*, 2nd rev. ed., 119 p., paper, \$1.25.

FREQUENCY-POWER FORMULAS: Paul Penfield, Jr.—*Wiley*, 168 p., \$4. Systematic treatment of frequency-power formulas, with emphasis on Manley-Rowe formulas.

GUIDE TO THE STUDY OF THE ANATOMY OF THE SHARK, *Necturus*, AND THE CAT—Samuel

SCIENCE in CRIME DETECTION

by Nigel Morland

A fascinating, detailed account of the latest scientific methods of crime detection. Includes actual case histories of complicated crimes and how they were solved by the use of these methods. Shows how more and more the laboratory is becoming one of the most powerful of police weapons against criminals at work.

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Part III: THE EXPERT AT WORK. 8. MISCELLANEOUS EVIDENCE • A Criminological Bibliography. 9. THE MICROSCOPE • Bibliography. 10. *Illustrative Cases:* Brown and Kennedy • Dr. Buck Ruxton • Harry Dobkin • Alfred Arthur Rouse • James Camb • Bruno Hauptmann • John Christie • Norman Thorne • Bibliography.

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Eddy, Clarence P. Oliver and John P. Turner—*Wiley*, 3rd ed., 141 p., illus., paper, \$3.50. Manual to the dissection of the primitive-type dogfish shark and the highly-developed-type vertebrate cat.

INERTIAL GUIDANCE—Charles S. Draper, Walter Wrigley and John Hovorka—*Pergamon*, 130 p., illus., \$6.50. Descriptive treatise on the physical principles and engineering methods underlying the navigation of vehicles by means of signals from sensors, written by experts.

AN INTRODUCTION TO ASTRODYNAMICS—Robert M. L. Baker, Jr., and Maud W. Makemson—*Academic*, 358 p., \$7.50. Concise introductory textbook for undergraduate courses and reference of astrodynamical techniques for engineers involved in space technology.

AN INTRODUCTION TO SOCIAL PSYCHOLOGY—William McDougall—*Barnes & Noble*, 524 p., paper, \$1.95. Reprint of 23rd edition of pioneer book, first published in 1908.

AN INTRODUCTORY TREATISE ON THE LUNAR THEORY—Ernest W. Brown—*Dover*, 292 p., paper, \$2. Unabridged reprint of 1896 edition.

KEY TO LASTING SLIMNESS—Corinne Collins, foreword by Jean Mayer—*Collins, J. R. (Doubleday)*, 80 p., paper, \$1. Pocket-size monograph on weight control.

LIPIDE METABOLISM—Konrad Bloch, Ed.—*Wiley*, 411 p., \$10.50. Summarizes present knowledge of the intermediary metabolism of lipides.

MAMMILARIA—C. Marsden, foreword by Sir Oliver Leese—*Cleaver-Hume (St. Martins)*, 407 p., illus., \$7.75. Detailed descriptions of characteristics and cultivation of 250 species of the genus *Mammillaria*, one of the largest of the cactus family.

THE MECHANISM OF EVOLUTION—W. H. Dowdswell—*Harper*, 115 p., illus., paper, 95¢. Presents contemporary ideas on variation and natural selection.

MOLLUSCS—J. E. Morton—*Harper*, 232 p., illus., paper, \$1.40. General introduction to the forms and functions of molluscs.

NATURAL SELECTION AND HEREDITY—P. M. Sheppard—*Harper*, 209 p., illus., paper, \$1.35. Deals with some recent ideas on the mechanism of evolution in the light of modern genetics.

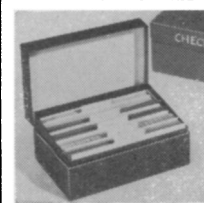
NAVAL BATTLES AND HEROES—Wilbur Cross with Rear Admiral John B. Heffernan—*American Heritage (Golden Press)*, 153 p., illus., \$3.50. Copiously illustrated, acquaints young people with the changing technology of marine warfare.

PERSONALITY DEVELOPMENT IN CHILDREN—
(Continued on p. 398)

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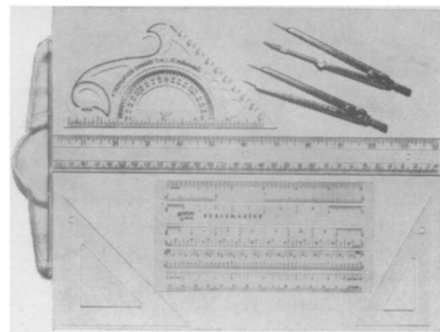
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THE STRUCTURE OF THE ATOM—23 PAGES with many diagrams. A completely new system of atomic structure, comprising structural center, but no nucleus. Price 25 cents ppd. C. F. Kraft, 218 Columbia Road, Annandale, Virginia.

Books of the Week

(Continued from p. 396)

Harold E. Jones and others; Ira Iscoe and Harold W. Stevenson, Eds.—*Univ. of Texas Press*, 171 p., \$4. Papers presenting current research in child development.

THE PRINCIPLES OF SCIENTIFIC RESEARCH—Paul Freedman, introd. by C. H. Waddington—*Pergamon*, 2nd ed., 228 p., \$4.50. Addressed to the young scientist, discusses what scientific research is like as a way of spending one's life.

PRINCIPLES OF STELLAR DYNAMICS—S. Chandrasekhar—*Dover*, enlarged ed., 313 p., illus., paper, \$2. Unabridged reprint of 1942 edition, with three papers published in 1943.

PSYCHOLOGICAL TECHNIQUES IN DIAGNOSIS AND EVALUATION—Theodore C. Kahn and Martin B. Giffen—*Pergamon*, 164 p., illus., \$6.50. Discusses the clinical use of psychological tests and their limitations.

PURE MATHEMATICS, Vol. I: Calculus. Vol. II: Algebra, Trigonometry, Coordinate Geometry—F. Gerrish—*Cambridge Univ. Press*, 438 p., 483 p., \$5, \$6.50. A university course.

RADIOISOTOPE EXPERIMENTS FOR THE CHEMISTRY CURRICULUM—Nuclear-Chicago, Norman Radin, Ed.—*AEC (OTS)*, unpagd, illus., paper, \$2. Describes 33 experiments designed to introduce students to radioisotope techniques and their potential usefulness.

RADIOISOTOPE LABORATORY TECHNIQUES—R. A. Faires and B. H. Parks, foreword by Henry Seligman—*Pitman*, 2nd ed., 244 p., illus., \$5.75. Tells the scientist and technologist how to use radioisotopes safely and effectively in research laboratories, medicine and industry.

THE WASTE-MAKERS—Vance Packard—*McKay*, 340 p., \$4.50. Considers the effects on people and products of a primarily sales-oriented economy.

• Science News Letter, 78:396 December 10, 1960

Questions

AGRICULTURE—What plant disease is the new antibiotic agent, P-9, expected to control effectively? p. 375.

MEDICINE—What is the principal form of fat in the diet? p. 371.

METEOROLOGY—What is the speed of Tiros II? p. 373.

Photographs: Cover, Radio Corporation of America; p. 371, U. S. Army, Office of Technical Liaison; p. 373, Electronic Associates, Inc.; p. 375, Mildred J. Ericson; p. 394, U. S. Dept. of Health, Education and Welfare; p. 400, R. H. Fisher Co. (Photo credits for the Supplement pp. 377-392 on p. 392.)

Do You Know

Experiments of early balloonists led directly to heavier-than-air flight and were essential preliminaries to the space-flight experiments of today.

The Office of Civil and Defense Mobilization has ready for transportation and assembly throughout the country almost 2,000 Civil Defense Emergency Hospitals.

Unremembered dreaming is so much a part of normal human experience that dream suppression, if carried on long enough, could result in a serious disruption of personality.

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