

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, priced at 95¢ or over, 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. Request free publications direct from publisher, not from Science Service.

ALLERGY: What It Is and What to Do About It—Harry Swartz—*Ungar*, rev. ed., 232 p., \$3.95. Allergist discusses all aspects of allergy and latest developments in therapy, for general reader.

THE AMERICAN EPHEMERIS AND NAUTICAL ALMANAC for the Year 1961—U.S. Naval Observatory, Nautical Almanac Office—*GPO*, 523 p., \$4. Prepared jointly with H. M. Nautical Almanac Office, Royal Greenwich Observatory.

ATOMS: The smallest Particles and The Energy They Contain—Jerry Korn—*Golden Press*, 56 p., illus. by N. Van Houten, de luxe \$1; 50¢. For young people.

BIRDS FROM GABON AND MOYEN CONGO—Austin L. Rand, Herbert Friedman and Melvin A. Traylor, Jr.—*Chicago Nat. Hist. Mus.*, 411 p., paper, \$3.50. New study of birdlife of western Africa.

CEMENTED CARBIDES—Paul Schwarzkopf and Richard Kieffer—*Macmillan*, 349 p., illus., \$15. Deals with composites of pure refractory material and binder metal of high ductility, including ceramic tool materials.

CLINICAL PHARMACOLOGY AND THERAPEUTICS, Vol. I, No. 1—Walter Modell, Ed.—*Mosby*, 136 p., paper, bi-monthly, \$12.50 annually. Articles on problems in the evaluation of the actions and effects of drugs on man.

DESCRIPTIONS OF TADPOLES OF MIDDLE AMERICAN FROGS—Priscilla Starrett—*Mus. of Zool., Univ. of Mich.*, 48 p., illus., paper, \$1.10.

EDISON AND OTHER EXPERIMENTS YOU CAN DO—Marjorie Van de Water, foreword by Walker L. Cisler—*Int'l Edison Birthday Celebration Committee (Science Service)*, 32 p., illus., paper, 25¢. Basic experiments from original notebooks of famous experimenters.

FIRST INTO OUTER SPACE—Theodore J. Gordon and Julian Scheer—*St. Martins*, 197 p., illus., \$3.95. Detailed story of preparation and countdown for Thor Able missile which carried the first Pioneer about 71,000 miles into space.

THE FORD FOUNDATION ANNUAL REPORT 1959: To Advance Human Welfare—Henry T. Heald,

Pres.—*Ford Foundation*, 180 p., illus., paper, free upon request direct to publisher, 477 Madison Ave., New York 22, N.Y. Program reviews.

HANDBOOK OF AGING AND THE INDIVIDUAL: Psychological and Biological Aspects—James E. Birren, Ed.—*Univ. of Chicago Press*, 939 p., illus., paper, \$12.50. Authoritative technical summary of the scientific literature on the individual or behavioral aspects of human aging.

HANDBOOK ON BULBS—R. W. Oliver, Ed.—*Brooklyn Botanical Gardens*, 96 p., illus., paper, \$1. Contains illustrated dictionary of bulbs and many articles about planting, forcing and growing of bulbs.

HOW TO USE METERS—John F. Rider and Sol D. Prensky—*Rider, J. F.*, 2nd rev. ed., 210 p., illus., paper, \$3.50. Up-to-date information on electronic meter instrumentation.

ILLUSTRATED FLORA OF THE PACIFIC STATES: Washington, Oregon, and California, Vol. IV, Bignonias to Sunflowers—Leroy Abrams and Roxana Stinchfield Ferris—*Stanford Univ. Press*, 732 p., illus., \$17.50. Includes 1,124 species of fern, herb, tree and shrub known to grow wild in the region, with index to all four volumes.

INTERNATIONAL DIRECTORY OF RADIOISOTOPES, Vol. II: Compounds of Carbon 14, Hydrogen 3, Iodine 131, Phosphorus 32 and Sulphur 35—*IAEA (Int'l Publications, N.Y.)*, 213 p., paper, \$3. In alphabetical order lists synonyms and suppliers in U.S. and abroad.

INTRODUCTION TO PLANT PHYSIOLOGY—Bernard S. Meyer, Donald B. Anderson and Richard H. Bohning—*Van Nostrand*, 541 p., illus., \$7.50. Condensed version of Meyer and Anderson's "Plant Physiology," with new material covering recent advances.

LANDSCAPE PLANTS THAT ATTRACT BIRDS—G. Wm. Longenecker and Robert Ellarson—*Univ. of Wis., College of Agric.*, rev. ed., 10 p., illus., paper, 10¢. Send directly to publisher, Madison, Wis.

LIMITS OF ALLOWABLE CONCENTRATIONS OF ATMOSPHERIC POLLUTANTS, Book 3—V. A. Ryzanov, Ed., transl. from Russian by B. S. Levine—*OTS*, 146 p., paper, \$3.

A LOOK AT JUVENILE DELINQUENCY—Lincoln Daniels, foreword by Katherine B. Oettinger—*Children's Bureau (GPO)*, 50 p., illus., paper, 25¢. Addressed to general public.

MARRIAGE: East and West—David and Vera Mace—*Doubleday*, 359 p., \$4.50. Examines the marriage relationship in Asia, traditional and contemporary.

MINERAL EQUILIBRIA at Low Temperature and Pressure—Robert M. Garrels—*Harper*, 254 p., \$6. About chemical relations in aqueous solutions at low temperatures and pressures.

NATURAL AREAS FOR SCHOOLS—Verna R. Johnston, foreword by John F. Shrawder—*Conservation Educ. Section, State Dept. of Natural Resources*, 32 p., illus., paper, single copies free upon request direct from publisher, Sacramento 14, Calif. Shows how pieces of wilderness can be acquired and used in teaching.

PLANETS: Other Worlds of Our Solar System—Otto Binder—*Golden Press*, 56 p., illus. by George Solonevich, de luxe \$1; 50¢. Factual information for young people.

PRENATAL AND PARANATAL FACTORS IN THE DEVELOPMENT OF CHILDHOOD READING DISORDERS—Ali A. Kawi and Benjamin Pasamanick—*Child Development Publications*, 80 p., paper, \$3. Investigates hypothesis that childhood reading disorders may be consequent to minimal cerebral injury during prenatal and paranatal periods.

A PRIMER ON TELEVISION TAPE RECORDING—George B. Goodall—*Robins Industries*, 47 p., illus., paper, \$1. Basic principles and special techniques, editing, splicing and duplicating of video tapes.

PRINCIPLES OF FREQUENCY MODULATION: Applications in Radio Transmitters and Receivers, and Radar—B. S. Camies—*Rider, J. F.*, 147 p., paper, \$3.50. For student, technician and engineer.

PRINCIPLES OF RADIOISOTOPE METHODOLOGY—Grafton D. Chase with Joseph L. Rabinowitz—*Burgess*, 286 p., illus., \$6. Laboratory techniques and experiments of varying difficulty.

PROJECT MERCURY: Man-in-Space Program of the National Aeronautics and Space Administration—U.S. Senate Committee on Aeronautical and Space Sciences—*GPO*, 97 p., illus., paper, 40¢. Staff report.

PSYCHOLOGY OF PERSONAL ADJUSTMENT: Students' Introduction to Mental Hygiene—Fred McKinney—*Wiley*, 3rd rev. ed., 490 p., illus., \$6.50. More concise, deals with basic concepts and their application to student problems.

STRATIGRAPHIC PRINCIPLES AND PRACTICE—J. Marvin Weller—*Harper*, 725 p., illus., \$10. Comprehensive treatment of those features of sedimentology, paleontology, and tectonics that particularly apply to stratigraphy.

A STUDY OF THE PURDUE UNIVERSITY ENGINEERING GRADUATE—William K. LeBold and others—*Purdue Univ.*, 300 p., paper, \$2.50. Prepared from questionnaires inquiring into post-college experiences of engineering graduates who received B.S. degrees between 1911 and 1956.

STUDY-SKILLS IN MAGNETISM AND ELECTRICITY—David C. Liebler—*Ungar*, 168 p., illus., \$3.75. Experiments for young people from fifth grade through junior high.

SYMPOSIUM OF PLASMA DYNAMICS—Francis H. Clauser, Ed.—*Addison-Wesley*, 369 p., illus., \$12.50. Deals with research on high-temperature plasmas, dynamics of electron beams and magnetohydrodynamics. 68-page bibliography.

THERMODYNAMICS—Franklin P. Durham—*Prentice-Hall*, 2nd ed., 349 p., illus., \$8.35. Undergraduate textbook.

VITAMINS AND HORMONES: Advances in Research and Applications, Vol. XVII—Robert S. Harris, G. F. Marrian and Kenneth V. Thimann, Eds.—*Academic*, 359 p., \$14. About folic acid,

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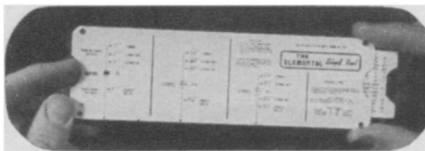
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***CHIPS FROM THE MOON** by H. H. Nininger (Booklet discussing Tektites, their structure and probable origin. 41 pages, map, 9 pages of plates). 35¢ plus 5¢ postage.

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WAVE PROPAGATION AND GROUP VELOCITY—Leon Brillouin—*Academic*, 154 p., \$6. For physicists and radio engineers.

Science News Letter, February 20, 1960

ASTRONOMY

Earth Bacteria Could Survive Moon's Heat

EARTH-VARIETIES of bacteria are rough and tough enough to survive extreme temperatures on the moon, two researchers have reported.

Thus man-made rocket ships might carry bacteria to the moon where they will thrive, Drs. Stephen Zamenhof and Sheldon B. Greer, biochemists at Columbia University's College of Physicians and Surgeons, said.

They found that many types of bacteria can survive heat as intense as that presumed to exist in sunlight on the surface of the moon. Many scientists believe this temperature to be well above the boiling point of water on earth.

The two men found that many bacteria survived in a vacuum when the heat reached 275 degrees Fahrenheit, 63 degrees above the normal boiling point of water at sea level.

Many bacteria should be able to survive in the dry state of a vacuum on the moon's surface, the scientists believe. Dr. Zamenhof's report appears in the Proceedings of the National Academy of Sciences, 46:101, 1960.

It was previously assumed by most scientists that only bacteria spores survived high temperatures. Spores are forms of bacteria extremely resistant to heat, chemicals and radiation.

"But now we see that in space—a vacuum—dry bacteria can be almost as hardy as spores," Dr. Zamenhof said.

This information could mean that earth-bacteria are now growing on the moon if the decontamination processes of the Russians failed. U.S. scientists assume, however, that the Russian rocket that crashed on the moon last September was sterile.

If the Soviet missile was not sterile, it may spoil chances of determining whether any organisms found on the earth's satellite originated during the early stages of the development of the solar system.

Science News Letter, February 20, 1960

PUBLIC HEALTH

More Males Have Impaired Hearing

MORE THAN 5,800,000 Americans have some degree of hearing loss, including nearly 110,000 who are totally deaf. Forty of every 1,000 males have impaired hearing, a rate one-third higher than that for females, data from the Metropolitan Life Insurance Company show.

This higher rate among males is attributed to their more frequent involvement in accidents and their greater exposure to prolonged intense noise in industry.

Science News Letter, February 20, 1960

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To the ARTIST-in-EMBRYO

There is a glib half-truth to the effect that he who can, does; while he who can't—teaches. Adrian Hill, well known author of the below-mentioned books is both Artist and Teacher. He can do, he does do, and also he teaches: ART—insofar as Art can be "taught" (mostly it has to be self-taught!)

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