

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

ADVANCES IN CLINICAL CHEMISTRY, Vol. I—Harry Sobotka and C. S. Stewart, Eds.—*Academic*, 398 p., graphs, \$12. Readable accounts of selected important developments and their impact upon the progress of medical science. Each chapter has bibliography.

THE ANIMALS OF DOCTOR SCHWEITZER—Jean Fritz—*Coward McCann*, drawings by Douglas Howland, \$3. For young children, appealing sketches illustrating Dr. Schweitzer's relationship to his wild animal friends.

ARMY ENGINEERS: Fighters and Builders—C. B. Colby—*Coward McCann*, 48 p., photographs, \$2. Shows what the U. S. Corps of Engineers is doing.

THE ART OF DRYING PLANTS AND FLOWERS—Mabel Squires—*Barrows*, 258 p., illus., \$4.50. While the stress is on artistic uses, the book also contains useful hints for the young botanist.

ATOMIC ENERGY COMMISSION TWENTY-FOURTH SEMI-ANNUAL REPORT—Lewis L. Strauss, Chairman—*Govt. Printing Office*, 410 p., illus., paper, \$1.25.

BABYLON AND THE OLD TESTAMENT—André Parrot—*Philosophical Lib.*, 166 p., illus., \$2.75. The story of Babylonian archaeology, revealing the region's history and civilization.

BIBLIOGRAPHY ON THE EFFECTS OF IONIZING RADIATIONS ON PLANTS, 1896-1955—Arnold H. Sparrow, John P. Binnington and Virginia Pond—*Brookhaven Nat. Lab. (Office of Technical*

Services), 222 p., paper, \$2.25. Lists of conferences, symposia, and references; subject index.

BRITISH MAMMALS—Maunce Burton—*Oxford Univ. Press*, 64 p., drawings by Jane Burton, and photographs, \$2.75. Unusually fine illustrations and simple text cannot help arousing beginner's interest in the study of animals.

THE CHINESE KNEW—Tillie S. Pine and Joseph Levine—*Whittlesey House*, 32 p., illus. by Ezra Jack Keats, \$2.50. Relates old Chinese know-how to simple experiments a child can do.

COOPERATIVE RESEARCH PROJECTS: Fiscal 1957—Romaine P. Mackie, Harold M. Williams and Alice Yeomans Scates, introd. by Herbert S. Conrad—*Govt. Printing Office* for Office of Education, 64 p., paper, 25¢. Concerns mostly education of the retarded child, but also research on identifying and developing unusual talent.

ANGER IN THE AIR—Oliver Stewart—*Philosophical Lib.*, 194 p., illus., \$6. Describes and analyzes air accidents, each one illustrating a particular kind of danger, and shows how engineers and research workers have learned from them.

DISCOVERING NATURE: An Introduction to the World Outside—Charlotte Orr Gantz—*Scribner*, 239 p., illus. by Charles Hargens, \$3.95. An amateur naturalist tells engagingly about the growth of her awareness of the "world outside."

ENCYCLOPAEDIA OF LIBRARIANSHIP—Thomas Landau, Ed.—*Hafner Pub. Co.*, 334 p., \$10. Comprehensive quick reference book covering all phases of librarianship.

EXPERIMENTAL BASIC ELECTRONICS—Rupert N. Evans and Charles B. Porter—*McKnight & McKnight*, 104 p., illus., \$3. Basic and advanced experiments acquainting the student with communications, control, measurement, and conversion of electricity to other forms.

THE FEDERAL BASIS FOR WEIGHTS AND MEASURES—Ralph W. Smith—*Govt. Printing Office*, NBS Circular 593, 23 p., illus., paper, 30¢. Historical review of Federal legislative effort, statutes and administrative action.

FIRST AID FOR YOUR INFANT AND CHILD—Eric Northrup, introd. by Morris Fishbein—*Holt*, 320 p. illus. by Dan Noonan, \$3.95. A practical book of advice for parents.

GAS CHROMATOGRAPHY: A Symposium Held Under the Auspices of the Analysis Instrumentation Division of the Instrument Society of America, August, 1957—Vincent J. Coates, Henry J. Noebels and Irving S. Fagerson, Eds.—*Academic*, 323 p., illus., \$10. Symposium aimed at maximum interchange of information and free discussion of advances in gas chromatography.

A GRAIN OF MUSTARD SEED—Alice Albertson Shurrocks with Ralph C. Bean—*Nantucket Maria Mitchell Assn.*, 245 p., illus., \$4.50. Contains descriptions of 200 representatives of 62 well-

known botanical families prevalent on the Island of Nantucket.

THE HELICOPTER—J. Shapiro—*Macmillan*, 269 p., illus., \$4.50. For the general reader, explains how the helicopter works, its history and mission.

AN INTRODUCTION TO THE STUDY OF EXPERIMENTAL MEDICINE—Claude Bernard, transl. by Henry Copley Green, foreword by I. Bernard Cohen, introd. by Lawrence J. Henderson—*Dover*, 226 p., paper, \$1.50. A 19th century French classic on physiology.

JET PROPULSION—Walter J. Hesse—*Pitman*, 567 p., illus., \$9.75. One- or two-semester course at the junior and senior engineering levels, or first-year graduate level.

LIFE HISTORY AND ECOLOGY OF THE CHIPMUNK, EUTAMIAS AMOENUS, IN EASTERN WASHINGTON—Harold E. Broadbent—*Mus. of Zoology, Univ. of Mich.*, 50 p., illus., paper, 95¢. Observations of two field seasons, live-trapping the little mammal.

THE MAN-MADE FIBRES INDUSTRY—R. Robson—*St. Martins*, 135 p., \$5. Gives an account of the development of this rapidly changing industry.

THE MANY FACES OF MONEY—Edith G. Neisser—*Human Relations Aids*, 29 p., illus. by Doug Anderson, paper, 25¢. What money means to different people at different times in their lives.

MEN AND WOMEN BEHIND THE ATOM—Sarah R. Riedman—*Abelard-Schuman*, 228 p., photographs, \$3. Biographies of the great names in nuclear physics told for young people.

MINERALS YEARBOOK 1955, Vol. II: Fuels—T. W. Hunter and others—*Govt. Printing Office* for Bureau of Mines, 440 p., \$2.25. Chapters on each mineral fuel, employment and injuries data, development in fuel industries, and review of energy production.

MODERN DRUG ENCYCLOPEDIA AND THERAPEUTIC INDEX—Edwin P. Jordan, Ed.—*Drug Publications*, 7th ed., 1516 p., \$17.50. Pharmaceuticals, biologicals and allergens. Manufacturers' and distributors' index.

OIL: From Prospect to Pipeline—Robert R. Wheeler and Maurine Whited—*Gulf Pub. Co.*, 115 p., illus., \$2.95. Describes technical operations in layman's language. Includes oil dictionary and abbreviations.

THE OLDER POPULATION OF THE UNITED STATES—Henry D. Sheldon, introd. and summary by Clark Tibbitts—*Wiley for Social Res. Council* in coop. with Bureau of the Census, 223 p., \$6. Monograph analyzes the process of aging in relation to employment, income and living arrangements, and discusses trends and problems.

OVERPOPULATION: Twentieth Century Nemesis—Alexander J. Stuart—*Exposition*, 240 p., graphs, \$4. Condensed study of procreation, from amoeba to modern man. Col. Stuart advocates birth control as a solution to overpopulation.

PETROLEUM SOURCEBOOK 1958—Curtis Stevens, Ed.—*Nat. Petroleum Bibliography*, 179 p., paper, \$6. A regional bibliography, covering petroleum developments in 82 nations.

PLASTICS IN BUILDING ILLUMINATION—Charles T. Granger and others—*Building Res. Inst.*, 99 p., illus., paper, \$3. A report of the Fifth Meeting of the BRI Plastics Study Group held in Houston, Texas, March 1958.

RECENT ADVANCES IN GELATIN AND GLUE RESEARCH: Proceedings of conference held at Cambridge University, 1957—G. Stainsby, Ed.—*Pergamon*, 277 p., illus., \$12. On the origin and structure of collagen, and on the compositions and properties of gelatins.

The TREE of MATHEMATICS

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REPORT OF THE HIGH-STRENGTH, HIGH-TEMPERATURE MATERIALS FOR STANDARD PARTS SYMPOSIUM—Charles Sheckells, Chairman—*Nat. Standards Assn.*, 393 p., illus., paper, \$5. Discusses materials needed for missiles, satellites and rockets.

SAFE DESIGN AND USE OF INDUSTRIAL BETA-RAY SOURCES—Subcommittee on Sealed Beta-Ray Sources of ASA Z54 Sectional Committee—*Govt. Printing Office*, NBS Handbook 66, 28 p., illus., paper, 20¢. Discusses aspects of personnel protection.

SAMARIA: The Capital of the Kingdom of Israel—André Parrot—*Philosophical Lib.*, 143 p., illus., \$2.75. Archaeology here reconstructs the stage on which the prophets Elijah and Elisha played their parts.

SPELEO DIGEST 1957—John R. Dunn and William B. White, Eds.—*Pittsburgh Grotto (Speleo Digest)*, 292 p., illus., paper, \$3. Collection of writings on the discovery of caves and new data on known ones.

THE STATISTICS OF METEORS IN THE EARTH'S ATMOSPHERE—Gerald S. Hawkins and Richard B. Southworth—*Govt. Printing Office* for Smithsonian, 16 p., paper, 50¢. Of interest to those concerned with the technical problems of the upper atmosphere.

THE STORY OF THE WINGED-S: An Autobiography—Igor I. Sikorsky—*Dodd*, 4th ed., 280 p., illus., \$4. With new chapter on recent, successful helicopter experiments.

TEXTBOOK OF ORGANIC CHEMISTRY—Lloyd N. Ferguson—*Van Nostrand*, 618 p., illus., \$7.50. For students of elementary organic chemistry, with study guides and references.

TOPOLOGICAL ANALYSIS—Gorden Thomas Whyburn—*Princeton Univ. Press*, 119 p., \$4. Centered around results obtainable with the aid of the circulation index of a mapping and properties resulting from openness of a mapping.

TRANSACTIONS OF THE CONFERENCE ON THE USE OF SOLAR ENERGY: The Scientific Basis, 5 vols.—Edwin F. Carpenter, Ed.—*Univ. of Ariz. Press*, 887 p., illus., paper, \$12.50 per set. On available energy measurement of the radiation, high temperature furnaces, solar heating, photochemical and electrical processes.

THE TRUE BOOK OF ROCKS AND MINERALS—Illa Podendorf—*Childrens Press*, 48 p., illus. by George Rhoads, \$2. A child's introduction to the world of rocks.

WONDERS OF THE HIVE—Sigmund A. Lavine—*Dodd*, 92 p., illus., \$2.95. About all types of bees—solitary, carpenter, mason, mining, social and stingless bees.

WOODLAND ECOLOGY—Ernest Neal—*Harvard Univ. Press*, 117 p., illus., \$1.75. For students and naturalists who wish to learn more about the lives and relationships of animals and plants.

THE WORLD OF CARBON—Isaac Asimov—*Abelard-Schuman*, 178 p., diagrams by author, \$2.75. Makes the carbon part of organic chemistry a story of absorbing interest to the general reader.

YOU AND THE EARTH BENEATH US—Julian May—*Childrens Press*, 63 p., illus. by Beth Wilson, \$2. Introducing the child to the earth's crust and the forces that made it.

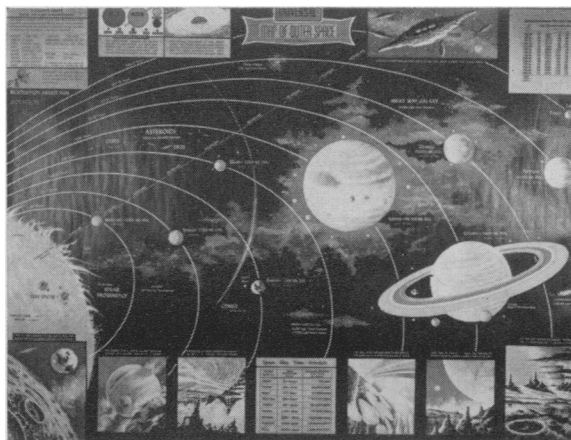
Science News Letter, August 30, 1958

An antibiotic prepared from a commonly found skin organism is highly effective in protecting animals against lethal inoculations of *Clostridium septicum*, the organism that produces gas gangrene.

The earliest known copper-nickel alloy coins are those minted about 170 B.C. in Bactria, India.

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Atoms for Peace

(Continued from p. 139)

used in the treatment of cardiac attack, glaucoma and epilepsy. Radioautographs will be exhibited to show the effect of these drugs on the central nervous system and as a check on drug concentration that actually reaches various parts of the body.

A number of organic materials will be tagged with tritium, or radioactive hydrogen, isotope 3, by direct exposure to the gas. Since hydrogen is a constituent of most organic matter, almost any organic compound can be labeled with tritium to form an isotope with a relative high specific activity. The specific procedure for labeling with tritium will be demonstrated. Particularly interesting will be the tagging of adenine with tritium. A constituent of nucleic acids, which are contained in all cell nuclei, tagged adenine is becoming increasingly useful in the study of cell structure and activity.

The exhibit will also demonstrate the assaying of tritium and C-14 in various organic materials by a rapid and precise simplified technique.

A traveling isotope laboratory built as a self-powered bus will show Geneva atomic visitors how isotopes are handled and used. It is one of two mobile radioisotope laboratories that the United States is giving to the International Atomic Energy Agency in Vienna for giving radioisotope training courses at universities and research institutions throughout the world. Six students at a time can be given basic training in how to handle radioisotopes.

In the Los Alamos cryogenics exhibit, actual experiments with two kinds of isotopes of helium will be performed at 0.5 degrees

Kelvin, very near to absolute zero degrees Kelvin, which is equal to 459.72 degrees Fahrenheit below zero. The exhibit will show the spontaneous separation of helium-3 and helium-4 at extremely low temperatures. This was originally predicted by scientists of the Los Alamos Scientific Laboratory, observed at Duke University and first photographed by Russians. The two kinds of helium separate into layers. The bottom layer, rich in helium-4, is superfluid and can pass through extremely fine cracks that can not be penetrated by other gases or liquids.

How nuclear radiation can be used to perform atomic surgery will be shown at a University of Chicago exhibit. Pellets of radioactive yttrium-90 are injected by a needle through the nose and into the pituitary gland of a life-size model to simulate an actual operation, which is guided by electronic X-ray fluoroscopes.

An atomic farm will be operated by the U. S. Argonne National Laboratory, as a small completely sealed greenhouse in which plants are grown in a radioactive atmosphere. There will also be a "radioactive restaurant for rats," an automatic feeding device which delivers carbon-14 labeled foods at definite intervals to rats.

Moving Mountains

Conventional earth moving fades into insignificance beside the prospects of atomic excavation, the use of hydrogen bombs for hollowing out harbors, blasting through mountains to change the course of rivers and performing other feats of rearranging the contours of the earth.

One of the reports from the United States