

Books of the Week

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ACUTE PROBLEMS IN RESUSCITATION AND HYPOTHERMIA—V. A. Negovskii, Ed., transl. from Russian by Basil Haigh—Consultants, 91 p., paper, \$15. Proceedings of a Symposium on the Application of Deep Hypothermia in Terminal States.

THE AGE OF REPTILES—Edwin H. Colbert—Norton, 228 p., illus., \$8.50. Attempts to review in a concise manner the era of the tetrapods, the four-legged vertebrates that lived during the years of reptilian supremacy from the Permian through the Cretaceous period.

AMERICAN STANDARD PRACTICE FOR INDUSTRIAL LIGHTING—Illuminating Engineering Soc., 50 p., illus., paper, 80¢. Latest standards and recommendations for illumination of a wide variety of industrial tasks and plants, both interior and exterior.

ARITHMETIC: Clear and Simple—Julio A. Mira—Barnes & Noble, 182 p., illus., \$2.50; paper, \$1.25. Fully explained with short cuts, checks, problems and applications, including new math sets and numbers.

BREAKTHROUGHS IN PHYSICS—Peter Wolf—New Am. Lib., 352 p., diagrams, paper, 75¢. Nine essays introducing the major contributions to the science of their times by Archimedes, Galileo, Pascal, Newton, Huygens, Helmholtz and Einstein.

THE CHEMISTRY OF LIFE: Science Concepts—John Carlton Williams—Haylock Pub. Co. (San Mateo, Calif.), 64 p., illus., by author, paper, \$1.95. Attempts to cover a broad subject in little space.

THE CODE OF LIFE—Ernest Borek—Columbia Univ. Press, 226 p., illus., \$5.95. Introduces the lay reader to the scientific probings of the chemical mechanisms of life, culminating in the discovery of the architecture of nucleic acids and the synthesis of DNA.

COINCIDENCE TABLES FOR ATOMIC SPECTROSCOPY—Josef Kuba and others—Elsevier Pub. Co. (N.Y.), 1136 p., \$23.50. To help solve difficult analytical tasks, this comprehensive work presents principal lines for emission spectral analysis with coincidences from 2,000 to 10,000 Å.

COMPARATIVE INORGANIC CHEMISTRY—B. J. Moody—Am. Elsevier Pub. Co., 430 p., dia-

grams, \$6.50. Attempts to present systematically the principles and facts needed to give a sound foundation to the study of inorganic chemistry to college students majoring in chemistry.

THE CONCISE ENCYCLOPEDIA OF FAVORITE WILD FLOWERS: A Hundred Native Plants to Appreciate in the Wild and to Grow in the Home Garden—Marjorie J. Dietz—Doubleday, 308 p., illus., photographs by author, \$4.95. Not a field guide, rather intended as a gardener's helper.

A DICTIONARY OF MODERN ENGLISH USAGE—H. W. Fowler, rev. & ed. by Sir Ernest Gowers—Oxford Univ. Press, 2nd ed., 725 p., \$5. This revision of the famous sourcebook on conventions of grammar and vocabulary in the English language, originally written 39 years ago, preserves the Fowleresque flavor, yet prunes and consolidates; a classified guide replaces the list of general articles, indicating the content of some of Fowler's more enigmatic titles.

DIOPHANTUS OF ALEXANDRIA: A Study in the History of Greek Algebra—Sir Thomas L. Heath—Dover, 2nd ed., 387 p., paper, \$2.75. Reprint (1910) of work originally published in 1885.

DO IT YOURSELF AGAIN: Self Help Devices for the Stroke Patient—Am. Heart Assn., 47 p., illus., paper, single copies free upon request from your local Heart Association. Booklet shows in photographs and line drawings a wide variety of devices available to help patients with various degrees of disabilities.

ELEMENTS OF CLOUD PHYSICS—Horace Robert Byers—Univ. of Chicago Press, 191 p., illus., \$7.50. Authoritative text for advanced students of meteorology gives physicochemical background of the formation, growth and evaporation of cloud water drops and ice particles.

ETIQUETTE, JR.—Mary Elizabeth Clark and Margery Clousey Quigley—Doubleday, rev. ed., 212 p., illus., \$3.50. Contemporary social conventions for boys and girls.

EVERYDAY WILDFLOWERS—Gertrude E. Allen—Houghton, 48 p., illus. by author, \$2.75. Imparts to young children some interesting details about seven varieties of wildflowers.

THE EVOLUTION OF MAN'S CAPACITY FOR CULTURE—J. N. Spuhler and others, summary by Leslie A. White—Wayne State Univ. Press, 79 p., illus., paper, \$1.95. Reprint (1959).

FACT AND FICTION IN PSYCHOLOGY—H. J. Eysenck—Penguin, 300 p., diagrams, paper, \$1.25. Deals with topics relating to personality, its nature and measurement, neuroses, accidents, criminal behavior and other social interactions.

FLOUORESCENT LIGHT GARDENING—Elaine C. Cherry—Van Nostrand—256 p., illus., \$6.95. Discusses expertly the mechanics and equipment of fluorescent light gardening, the proper environment, culture and plants.

FUNDAMENTAL CHEMISTRY—Donald H. Andrews and Richard J. Kokes—Wiley, 2nd ed., 811 p., illus., \$8.50. Rearranged and expanded edition, emphasizing the inductive approach.

GARDENING BY THE SEA: From Coast to Coast—Daniel J. Foley—Chilton Bks., 285 p., photographs, map, \$6.95. Detailed information for the seaside gardener, deals with the problems of wind, sand, salt-spray and tide, and gives practical advice on wide variety of suitable plants and their care.

THE GUIDE TO SUMMER CAMPS AND SUMMER SCHOOLS, 1965-1966—Porter Sargent, 14th ed., 332 p., illus., \$4.40; paper, \$2.20. Information on 863 summer programs with widely diversified opportunities for recreation, travel and study, features tutoring, mathematics, science, geology, astronomy and other specialized studies.

HEGEL: Reinterpretation, Text and Commentary—Walter Kaufmann—Doubleday, 498 p., \$6.95. Offers a comprehensive, readable reinterpretation of the whole of Hegel's philosophical and political thinking in the context of his time.

I COME FROM THE STONE AGE—Heinrich Harrer, transl. from German by Edward Fitzgerald—Dutton, 256 p., photographs, maps, \$6.95. An account of mountain-climbing expedition with primitive natives in the interior of New Guinea.

THE IMPACT OF SCIENCE ON TECHNOLOGY—Aaron W. Warner, Dean Morse and Alfred S. Eichner, Eds.—Columbia Univ. Press, 218 p., \$6.75. Edited papers delivered before 1963/64 Columbia University Seminar on Technology and Social Change, discussions ranging from Nobelist I. I. Rabi to Congressman John Brademas.

LASER FOCUS, Vol. 1, No. 1—Bill Bushor, Ed.—Int'l Data Publish. Co., (Newton, Mass.), 20 p., illus., paper, semimonthly, \$36 a year. Provides concise descriptions of current laser research, development, manufacture and applications.

LETTERS FROM JENNY—Gordon W. Allport, Ed.—Harcourt 223 p., illus., \$3.50; paper, \$1.95. A collection of letters long famous among psychol-

ogists, with new preface and six chapters of psychological interpretation.

MATERIALS DATA NOMOGRAPHS—Robert L. Peters—Reinhold, 224 p., \$6.50. Contains 250 nomographs specifically presenting materials data relating to metals, ceramics, filled and unfilled plastics, and other materials.

MATTER, EARTH AND SKY—George Gamow—Prentice-Hall, 2nd ed., 624 p., illus., \$11.65. The author, a theoretical physicist well-known for his popular books on physics for the layman, revised this college text to explain in more simple terms the basic ideas of physics and other sciences closely related to it, including discussions of recent advances.

A NATIONAL PROGRAM TO CONQUER HEART DISEASE, CANCER AND STROKE: Report to the President, Vol. II—The President's Commission on Heart Disease, Cancer and Stroke, Michael E. DeBakey, Chmn—GPO, 644 p., diagrams, paper, \$3. This second volume contains subcommittee reports and staff papers providing in greater detail the views and judgments of the Commission.

NEWS INFORMATION: The Organization of Press Cuttings in the Libraries of Newspapers and Broadcasting Services—Geoffrey Whatmore—Araon Bks. (Shoe String Press), 165 p., photographs, \$4.50. A practical and detailed text, with examples drawn from practice in the British newspaper world.

NIELS BOHR: The Man Who Mapped the Atom—Robert Silverberg—Macrae Smith, 189 p., \$3.25. A biography for young people.

PASSENGER CAR SAFETY DYNAMICS—Andrew J. White—Motor Vehicle Research (Lee, N. H.), 481 p., photographs, \$35. An engineering pilot study to determine comparative human injury potentials in vehicle accidents, testing factors during crash deceleration, brakes, wheels, tires, steering wheels, windshields, seat belts, and carbon monoxide hazards.

PESTICIDE HANDBOOK-ENTOMA, 1965—Donald E. H. Frear, Ed.—College Science Publishers, 17th ed., 316 p., \$4, paper, \$3. This revised edition contains new features derived from the merger of the PESTICIDE HANDBOOK and ENTOMA, the popular pesticide directory of the Entomological Society of America.

PRINCIPLES OF MATHEMATICS—Paul K. Rees—Prentice-Hall, 383 p., \$6.95. Revision of FRESHMAN MATHEMATICS, a text for non-science majors.

THE PROFESSIONS IN AMERICA—Kenneth S. Lynn, Ed., and Editors of DAEDALUS—Houghton, 273 p., \$5. Essays on the quantitative requirements and the quality of American professional manpower today.

THE PUMA: Mysterious American Cat. Part I: History, Life Habits, Economic Status and Control. Part II: Classification of the Races of the Puma—Stanley P. Young and Edward A. Goldman—Dover, 358 p., illus., paper, \$2.25. Reprint (1946).

THE RELUCTANT SPACE-FARERS: A Study in the Politics of Discovery—Frank Gibney and George J. Feldman—New Am. Lib., 174 p., \$4.95. An informed and critical discussion of the U.S. space effort thus far and its political and economic potential in the years ahead.

THE RIEMANN HYPOTHESIS AND HILBERT'S TENTH PROBLEM—S. Chowla—Gordon & Breach, 119 p., \$6.50. An elementary introduction to the title topics.

ROAD RACE ROUND THE WORLD: New York to Paris, 1908—Robert B. Jackson—Walck, 60 p., photographs, map, \$2.75. Short, factual account of an early feat in automotive history.

THE ROSE QUESTION-AND-ANSWER BOOK—John Milton—Hearthsides Press, 192 p., drawings, \$3.95. An informative reference for the amateur gardener.

SAUCER IN THE SEA: The Story of the Coast-teau Diving Saucer in Pacific Coast Waters—Terry Shannon—Golden Gate Jr. Bks., 80 p., photographs, diagrams, \$3.75. Takes the reader aboard the submersible vehicle and describes the record of its many dives.

SCIENCE AND HUMAN VALUES—J. Bronowski—Harper, rev. ed., 119 p., illus., \$3. Includes new dialogue "The Abacus and the Rose."

SCIENTIFIC FINDINGS FROM EXPLORER VI—Yoshihide Kozai and others, introd. by H. E. Staus—NASA (GPO), 381 p., illus., \$2.25. Discusses data concerning celestial mechanics, ionospheric physics, and energetic particles in magnetic fields.

SOCIETY AND SCIENCE—Maurice Goldsmith and Alan MacKay, Eds.—Simon & Schuster, 236 p., \$6. Analyzing the social function of science, Nobel Prize winners and Fellows of the Royal Society assess in these pages the knowledge available to mankind to enable man for the first time in history to plan what science may do for him and to him.

THE STORY OF BIRDS OF NORTH AMERICA—Ruth Lellah Wheeler—Harvey House, 128 p., illus. by Anne Lewis, \$3.50. Introduces young readers to ornithology.

SUICIDE AND SCANDINAVIA: A Psychoanalytic Study of Culture and Character—Herbert Hendin—Doubleday, 177 p., paper, 95¢. Contribution to the understanding of the motivations underlying suicide.

SULFURIC ACID: Use and Handling—Oscar T.

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Fasullo—McGraw, 335 p., illus., \$15. Complete compendium of information on characteristics, physical properties, safe methods of handling, blending charts and other pertinent data on sulfuric acid.

WILD ANIMALS IN CAPTIVITY—H. Hediger, transl. from German by G. Sircom, foreword by Edward Hindle—Dover, 207 p., photographs, paper, \$1.75. Reprint (1950) of an outline of the biology of zoological gardens.

WONDERS OF AN OCEANARIUM: The Story of

Marine Life in Captivity—Lou Jacobs, Jr., foreword by David H. Brown—Golden Gate Jr. Bks., 79 p., photographs, \$3.75. A photo-journalistic account of the behind-the-scenes activities at Marineland of the Pacific.

THE WORLD OF THE TIGER—Richard Perry—Atheneum, 261 p., photographs, map, \$6.95. Collects together what is known of the habits of wild tigers in the jungles where they are still roaming in the 20th century.

• Science News Letter, 87:348 May 29, 1965

INVENTION

Current U. S. Patents

A computer that answers inquiries verbally uses bits of sounds, stored in the form of coded signals, to make a more natural "vocal response"—By William McCann

► A COMPUTER that "talks back" to answer an inquiry was granted a patent by the U.S. Patent Office.

An entire "library" of words are stored in the memory of the computer in the form of coded signals. When a question, printed on a punch card, is fed into the computer, the computer can actually answer back in a voice.

A similar system was put into use at the New York Stock Exchange but this type of system makes use of full words, giving the computer "voice" a mechanical quality, reports an International Business Machines official.

The newly patented system, however, uses bits of sounds to make a more natural voice quality. It "might well be the next step" in talking computers, he said.

Inventor Genung L. Clapper, researcher at IBM's branch at Endicott, N.Y., earned patent 3,183,303 for the machine and patent rights were assigned to International Business Machines, New York.

Diving Saucer

The manned diving saucer, built and operated by underwater explorer-photographer Jacques Yves Cousteau, has been awarded a patent.

The 1,000-foot-depth saucer utilizes mercury in its unique attitude control system. The mercury is pumped back and forth between forward and aft reservoirs to balance the craft.

Captain Cousteau of Paris, along with three colleagues, Emile Gagnan of Montreal, and Andre Laban and Jean Mollard, both of Marseille, earned patent 3,182,622 for the saucer. Patent rights were assigned to La Spirotechnique.

Egg Counter

Automation is now going to the henhouse as the result of a newly patented device that automatically finds, collects and counts the eggs.

The floor of the henhouse is sloped so that each egg rolls toward the outer edge of the nest, where it is pushed by an egg roller toward a receptacle. Meanwhile, the rolling egg is detected by a photo cell and ticked off by an automatic counter, which keeps a written chart of eggs laid. Thus a poultryman can keep track of how well each hen is doing, so that he can weed out the bad layers.

Akira Ishibashi, Fukuoka-shi, Japan, earned patent 3,183,514 for the apparatus.

Patent rights were assigned to Nippon Reizo Kabushiki Kaisha, Tokyo, Japan.

Other Interesting Patents

A moisture sensing device in the ground trips off a sprinkler if the ground gets too dry. Richard D. Hosier, San Gabriel, Calif., earned patent 3,182,914 for the watering device.

A dual-chamber artificial heart operates by an automatic cycling device that delivers adjustably controlled air pulses into two plastic bags representing the right and left ventricle. Victor W. Bolie, Ames, Iowa, earned patent 3,182,335 for the heart, and patent rights were assigned to Iowa State University Research Foundation, Inc., Ames, Iowa.

A jet-propelled submarine keeps going even if it is badly damaged by an explosion. Guenther Wolfgang Lehmann, Annapolis, Md., earned patent 3,182,623 for the sub and patent rights were assigned to the Government through the Secretary of the Navy.

For a list of registered patent attorneys and agents and other Patent Office information, write the Commissioner of Patents, Washington, D.C. 20231, or call 202-967-4058 for specific data.

• Science News Letter, 87:349 May 29, 1965

Do You Know?

A roadbreaking method employing *micro-waves* generated by a power of only five kilowatts may someday replace the noisy pneumatic drill.

Unlike the earth and most other planets in the solar system, *Venus* rotates clockwise.

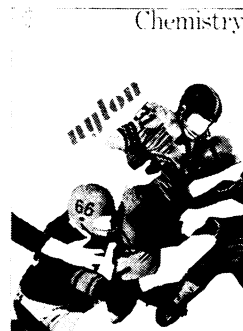
Two *stone age camps* excavated east of Moscow are believed to be the most northerly stone age encampments discovered in Europe.

The giant *panda* is the world's most expensive and rarest zoo animal.

To make a ton of finished *steel*, 60,000 gallons of water are needed.

• Science News Letter, 87:349 May 29, 1965

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