## Books of the Week

Listing is for readers' information, not advertising. For convenient purchase of any book listed or any U.S. book in print, remit retail price (we pay postage) plus 25¢ handling charge if price is less than \$2 to Book Order Service, Science News, 1719 N St., N.W., Washington, D.C. 20036. Prices subject to publishers' changes. Be sure to include zip code in your address.

AQUARIUM HYGIENE—Hellmuth Wachtel, transl. from German by Gwynne Vevers—Van Nostrand, 62 p., drawings, paper, \$1.95. Specialists's advice to the aquarium owner.

ATOMS AND EPOCHS: Sixty Centuries of Engineering Marvels—John Anderson Miller—Twayne Publishers, 258 p., illus. by Chichi Lasley, \$5. A popular tale of man's inventiveness as a builder, includes bibliography and index.

BIOLUMINESCENCE IN PROGRESS—Frank H. Johnson and Yata Haneda, Eds.—Princeton Univ. Press, 650 p., illus., \$15. Proceedings of the Luminescence Conference sponsored jointly in 1965 by the Japan Society for the Promotion of Science and the National Science Foundation. Presents 35 papers by the leading scientists active in this field today.

BREEDING AQUARIUM FISH: In Introduction to the Biology of Their Reproduction—Wolfgang Wickler, transl. from German by Denys W. Tucker—Van Nostrand, 114 p., illus., paper, \$1.95. Research scientist discusses breeding techniques and the conditions necessary for successful rearing of aquarium fish.

THE CHALLENGE OF THE COMPUTER UTILITY—D. F. Parkhill—Addison-Wesley, 207 p., illus., \$7.95. In this broad overview of the subject, chapters deal with such topics as the computer public utility concept, early computer utilities, technology of sharing, economic and legal considerations.

CHALLENGE OF THE SEVEN SEAS—Senator Clairborne Pell with Harold Leland Goodwin—Morrow, 306 p., photographs, map, \$6.95. Describes the adventures of ocean pioneers, achievements in oceanology, underwater mining and farming, ocean engineering and the concept of Sea Grant Colleges.

THE DISCOVERY OF NATURE—Albert Bettex—Simon & Schuster, 380 p., illus., \$24.95. Printed in Switzerland, this beautiful book presents a sweeping account of how man has discovered nature and how his discoveries have woven the fabric of science, illustrated throughout with an unusually fine selection of historicoscientific illustrations from the archives of Europe.

THE DOCTORS—Martin L. Gross—Random House, 605 p., \$6.95. A probing critique of the American physician who makes up the bulk of medical care practice in this country, analyzing his competence, practice, personality and medical education. Much of the material quoted draws on dissenting opinions within the medical profession.

DR. THOMAS SYDENHAM (1624-1689): His Life and Original Writings—Kenneth Dewhurst—Univ. of Calif. Press, 191 p., plates, \$6. Based on original source material, this scholarly study of the great London clinician of the 17th century draws a vivid picture of his time.

HANDBOOK OF INDUSTRIAL TOXICOLOGY—E. R. Plunkett, M.D.—Chemical Pub. Co., 440 p., \$16.50. Arranged alphabetically by their most familiar names from Abrin to Zirconium, the tabulated entries offer quick reference to occupational exposure, threshold values, pathologic data, symptoms, tests, therapy, possible disabilities and preventive measures.

HUMAN BEGINNINGS—Olivia Vlahos—Viking Press, 255 p., illus. by Kyuzo Tsugami, \$5.95. Based on a broad range of scientific investigations in human evolution, the author presents informally to a young audience what man has learned about his biological family tree and the beginnings of civilization. nings of civilization.

INTELLIGENT LIFE IN THE UNIVERSE—
I. S. Shklovskii and Carl Sagan; transl. from Russian by Paula Fern—Holden-Day, 509 p., photographs, diagrams, \$8.95. Extension and revision of the Russian astronomer's semipopular book published in Moscow in 1963. This English version includes ten more chapters with entirely new material presenting a collaboration between a Soviet astrophysicist and an American astronomer.

IT ALL STARTED WITH HIPPOCRATES: A Mercifully Brief History of Medicine—Richard Armour—McGraw, 134 p., illus, by Campbell Grant, \$3.95. A spoof on various developments in medicine, amusingly illustrated.

LEARNING ABOUT SCIENCE THROUGH GAMES—Warren Goodrich and Carleen Maley Hutchins—Stackpole Bks., 108 p., illus. by W. Goodrich, \$2.95. Reprint (1964) of book by the National Recreation Association, entitled Science Through Recreation, suggesting games for young children.

MENTAL FIRST AID: Toward Balance in a Dizzy World—Joost A. M. Meerloo, M.D.—Hawthorn Bks., 325 p., \$5,95. In this book the psychiatrist addresses himself to some of the common problems of contemporary life, such as the upsurge of violence, the decline of family life, the dark glasses syndrome, psychotherapy for the aged and the value of community mental health centers.

MOUNTAIN ARBITERS: The Changing Life of a Philippine Hill People—Edward P. Dozier—Univ. of Ariz. Press, 299 p., photographs, \$10. Anthropological study of the Kalinga of northern Luzon, cultivators of dry and wet rice, who in the process of acculteration exchanged their reputation of being headhunters for a system of peace pacts and concern over legal matters.

MUSICAL INSTRUMENTS THROUGH THE AGES—Anthony Baines, Ed.—Walker & Co., 344 p., 32 plates, illus., \$10. A broad historical survey of the development of different types of musical instruments, showing how shape, style and variations affect tone and playing techniques. A scholarly book for musicologists and music lovers.

THE NATURE OF MATTER: Physical Theory from Thales to Fermi—Ginestra Amaldi, transl. from Italian by Peter Astbury—Univ. of Chicago Press, 332 p., illus., \$5.95. A popularly written history of theoretical physics, from Greek philosophical speculation to the laws governing high energy interactions of elementary particles.

THE NEW AMERICAN MEDICAL DICTIONARY AND HEALTH MANUAL—Robert E. Rothenberg, M.D.—New Am. Lib., 432 p., illus. by Sylvia and Lester V. Bergman, \$6.95. Defines in everyday language more than 7,500 medical terms, diseases and disorders, with many explanatory line drawings. Health manual gives anatomy tables, antidotes and emergency procedures, diets, life expectancy and obstetric tables, charts and abbreviations.

NONLINEAR PROBLEMS IN RANDOM THEORY—Norbert Wiener—M.I.T. Press, 131 p., diagrams, paper, \$2.45. Reprint (1958).

NORTH, SOUTH, EAST AND WEST—Franklyn M. Branley—Crowell, unpaged, illus. by Robert Galster, \$3.25. Explains to the youngest readers how to tell directions.

OF MOLECULES AND MEN—Francis Crick—Univ. of Wash. Press, 99 p., \$3.95. Lectures on the theme of vitalism, presenting the Nobelist's scientific results and ideas about our present and future knowledge of biology.

ORGANIC INSERTION REACTIONS OF GROUP IV ELEMENTS—Edmund Yanovich Lukevits and Mikhail Grigor'evich Voronkov, transl. from Russian by Michael J. Newlands—Consultants, 413 p., \$25. Presents the known data on the addition of organic and inorganic derivatives of silicon, germanium and tin to multiple bonds in unsaturated compounds.

ORIGINS OF MENDELISM—Robert C. Olby, introd. by C. D. Darlington—Schocken Bks., 204 p., plates, \$6.95. A searching study and reevaluation of the growth of ideas which culminated in Mendel's hybridization experiments, the delayed acceptance of his results and their rediscovery more than a generation later.

THE PICTORIAL ENCYCLOPEDIA OF PLANTS AND FLOWERS—F. A. Novak, ed. by

## MEET THE HEAVENS!

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PLANETS—Carl Sagan, Jonathan Norton Leonard and the Editors of LIFE—Time-Life Bks., 200 p., illus., \$3.95 direct to publisher, Time & Life Bldg., Chicago, III. 60611. Dramatically illustrated chapters with picture essays deal with the planets' origin, composition and atmospheres, as well as with the possibility of life on other worlds.

RACES OF AFRICA—C. G. Seligman—Oxford Univ. Press, 4th ed., 170 p., maps, paper, \$1.85. Revised edition of book first published in 1930.

MESEARCH PROGRAM EFFECTIVENESS—M. C. Yovits and others, Eds.—Gordon & Breach, 542 p., diagrams, prof. ed., \$10; ref. ed. \$29.50. Proceedings of the Conference sponsored by the Office of Naval Research in 1965, on the theme of contributions of research to the improvement of research planning, evaluation and utilization. RESEARCH PROGRAM EFFECTIVENESS-

REVOLUTIONARY DOCTOR: Benjamin Rush, 1746-1813—Carl Binger, M.D.—Norton, 326 p., portrait, \$7.95. Biography of the Philadelphia physician who was a signer of the Declaration of Independence and is credited with being the father of American psychiatry.

SCIENTIFIC RESEARCH IN AFRICA: National Policies, Research Institutions—UNESCO and U.N. Economic Commission for Africa—Unesco Pubns. Center, N.Y., 214 p., paper, \$4. Detailed research policy statements from 27 countries and country-by-country descriptive listing of 669 research institutions in Africa today.

STRAIGHT HAIR, CURLY HAIR—Augusta Goldin—Crowell, unpaged, illus. by Ed Ember-ley, \$3.25. A let's-find-out science book for the

THE TEACHING HOSPITAL: Evolution and Contemporary Issues—John H. Knowles, Ed.—Harvard Univ. Press, 152 p., illus., \$4.50. Series of lectures examining the issues of teaching, quality of patient care, and the organization and financing of such costly functions in the university-affiliated teaching hospital.

THE WATER CRISIS—D. S. Halacy, Jr.—Dutton, 192 p., photographs, illus., maps, \$4.95. Presents water as a subject of scientific study and technology, written to interest young people in a career in hydrology.

WAX IN OUR WORLD—Solveig Paulson Russell—Rand McNally, 64 p., illus, by Paula Huchison, \$2.95. Tells children about the uses of wax in the ancient world and today, and about the different kinds of wax.

THE WORLD'S LANGUAGES: Grammars, Dictionaries. General, Specialized, Scientific, Technical—Stechert-Hafner, 14th ed., 173 p., paper, single copies free upon request direct to publisher, 31 E. 10 St., New York, N.Y. 10003. Lists some 4800 entries of texts in print, arranged by language and by subject.

THE WORLD OF PEOPLES: The Reith Lectures 1965—Robert Gardiner—Oxford Univ. Press, 93 p., \$3.75. Explores the subject of racial antipathy in contemporary society, patterns of race relations, with emphasis on Africa.

## A REFRESHER COURSE IN MATHEMATICS

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