

# 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.

**ADVENTURES IN CHEMISTRY: The Hows and Whys of Chemistry, 200 Safe Experiments—Nathan Feifer—*Sentinel Bks*, 128 p., illus., paper, \$1.** Presents the basic theory of chemistry on the elementary level, employing for experiments household materials and inexpensive laboratory equipment.

**AIR POLLUTION CONTROL—W. L. Faith—*Wiley*, 259 p., illus., \$8.50.** States the basic facts that must be considered in any air pollution control program, and offers practical methods of solving air pollution control problems.

**THE BOYS' BOOK OF ASTRONOMY—Patrick Moore—*Roy Pubs.*, 143 p., illus., \$3.** Well illustrated reference work for boys and girls by the president of the British Junior Astronomical Society.

**CAN MAN BE MODIFIED?—Jean Rostand, transl. from French by Jonathan Griffin—*Basic Bks*, 105 p., \$3.** Predictions of man's biological future by one of France's outstanding experimental biologists.

**A CONCISE ENCYCLOPEDIA OF WORLD TIMBERS—F. H. Titmuss—*Philosophical Lib.*, 264 p., 30 photomicrographs, \$15.** Describes the structure, characteristics and uses of nearly 200 different kinds of timber.

**CONTRIBUTIONS TO THE THEORY OF GAMES, VOL. IV—A. W. Tucker and R. D. Luce, Eds.—*Princeton Univ. Press*, 453 p., paper, \$6.** Devoted to recent work in n-person games, dedicated to the memory of John von Neumann.

**THE CRYSTAL STRUCTURE OF ANTIMONY PENTACHLORIDE AT  $-30^{\circ}$ —Stanley M. Ohlberg—*Mellon Institute*, 3 p., illus., paper, free upon request direct to publisher, 4400-5th Ave., Pittsburgh 13, Pa.**

**A DICTIONARY OF AMERICAN PROVERBS AND PROVERBIAL PHRASES, 1820-1880—Archer Taylor and Bartlett Jere Whiting—*Belknap Press*, 418 p., \$9.50.** Collection of proverbial phrases found in American works published between 1820 and 1880, years rich in regional literature.

**THE EARTH: Its Origin, History and Physical Constitution—Sir Harold Jeffreys—*Cambridge Univ. Press*, 4th ed., 420 p., illus., \$13.50.** Principal changes are in the treatment of tidal friction, new investigations of the thermal history of the earth and expanded section on the moon's surface features.

**ELEMENTS OF WAVE MECHANICS—N. F. Mott—*Cambridge Univ. Press*, 165 p., paper, \$2.95.** Reprint of 1952 edition, intended for students in the final year of experimental physics.

**FORTY-FOURTH ANNUAL REPORT OF THE NATIONAL ADVISORY COMMITTEE FOR AERONAUTICS, 1958, Administrative Report without Technical Reports—*Govt. Print. Off.* for NACA, 115 p., illus., paper, \$1.** Final report of the agency which on October 1, 1958 became the National Aeronautics and Space Administration.

**FUNDAMENTALS OF HIGH FIDELITY—Herman Burstein—*Rider*, 144 p., illus., paper, \$2.25.** Emphasis is on what an amplifier should provide, and how to choose the best equipment.

**FUTURE JOBS FOR HIGH SCHOOL GIRLS—Miriam Keeler—*Women's Bureau (Govt. Print. Off.)*, 64 p., illus., paper, 40¢.** Describes occupations, some technical and skilled, for which graduation from high school is basic requirement.

**GREGOR MENDEL: Father of the Science of Genetics—Harry Sootin—*Vanguard*, 223 p., illus., \$3.** Explains Mendel's experiments in simple terms, biography for young people.

## RAPID CALCULATIONS

by A. H. Russell

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**HOW TO STUDY SCIENCE—Louis Haber and Lawrence Samuels, Glen R. Rasmussen, Ed.—*College Entrance Pubs.*, 81 p., illus., paper, \$1.** To help the science student use special techniques and efficient methods in studying science.

**INDIAN SILVERWORK OF THE SOUTHWEST, ILLUSTRATED, VOL. 1—Harry P. Mera—*Dale Stuart King*, 122 p., 198 photographs, paper, \$1.** Pictorial presentation of the progress from early simple forms to later more complex styles developed by Indian craftsmen.

**INTRODUCTION TO HUMAN ANATOMY—Carl C. Francis—*Mosby*, 3rd ed., 548 p., illus., \$5.75.** Chapter on endocrine system and section on the autonomic nervous system brought up to date.

**LABORATORY EXERCISES IN ANIMAL BIOLOGY—Dale C. Braungart—*Mosby*, 5th ed., 244 p., paper, \$3.50.** To be used with general zoology textbooks.

**THE MAGIC YEARS—Understanding and Handling the Problems of Early Childhood—Selma H. Fraiberg—*Scribner*, 305 p., \$3.95.** Discusses the typical problems of each developmental stage during the first five years of normal childhood. For parents.

**MECHANICS OF MACHINES: Elementary Theory and Examples—John Hannah and R. C. Stephens—*Arnold, E. & Co. (St. Martins)*, 238 p., illus., \$5.** First year engineering course.

**MEDIEVAL AND EARLY MODERN SCIENCE, VOL. I: Science in the Middle Ages, V-XIII Centuries. Vol. II: Science in the Later Middle Ages and Early Modern Times, XIII-XVII Centuries—A. C. Crombie—*Doubleday*, rev. 2d ed., 296 p. and 380 p. resp., illus., paper, 95¢ each.** Contains 62 pages of bibliography.

**MORE ABOUT THE BACKWARD CHILD—Herta Loewy—*Philosophical Lib.*, 138 p., illus., \$4.75.** Guide for parents and teachers, showing Miss Loewy's method in reading, writing and arithmetic, in speech training, music and rhythm.

**THE NEW WORLD OF MATH—George A. W. Boehm and the Editors of FORTUNE—*Dial Press*, 128 p., diagrams by Max Gschwind, \$2.50.** Deals with modern mathematics, pure and applied, and takes up the future of computers. Articles first appeared in FORTUNE.

**PACIFIC SCIENCE BOARD: Bi-Annual Report 1957-58—Alexander Spoehr, Chmn.—*Pacific Science Bd., NAS-NRC*, 71 p., paper, free upon request direct to publisher, Washington 25, D. C.** Scientific investigation in Micronesia and other reports.

**THE PHYSICAL SCIENCES—E. J. Cable and others—*Prentice-Hall*, 4th ed., 553 p., illus., \$6.95.** Comprehensive but not highly technical presentation for the general college student who lacks higher mathematics.

**PLANT LIFE—Lorus J. Milne and Margery Milne—*Prentice-Hall*, 283 p., illus., \$6.95.** Emphasis is on the dynamic aspects of botany as an advancing science and what it means to man. Textbook.

**PLANT PROPAGATION: Principles and Practices—Hudson T. Hartmann and Dale E. Kester—*Prentice-Hall*, 559 p., illus., \$8.75.** Encyclopedic coverage of propagation methods, based on current research findings in the field.

**PRELOGICAL EXPERIENCE: An Inquiry into Dreams & Other Creative Processes—Edward S. Tauber and Maurice R. Green—*Basic Bks.*, 196 p., \$3.75.** Two psychoanalysts examine cases of

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RESEARCH IN SPACE SCIENCE, Special Report No. 23: The Orbit of Satellite 1958 Zeta—G. Veis—*Smithsonian Astrophysical Observatory*, 80 p., paper, single copies free upon request direct to publisher, Cambridge 38, Mass. Preliminary orbital analysis of Atlas rocket.

ROCKET ENCYCLOPEDIA ILLUSTRATED—John W. Herrick and Eric Burgess, Eds., foreword by Theodore von Karman—*Aero Pubs.*, 607 p., illus. by Wayne Lanford, photographs, \$12.50. Encyclopedic presentation of material published on specific research and design problems, technically correct for research man, yet understandable to the layman or beginner.

THE SLEEP WALKERS: A History of Man's Changing Vision of the Universe—Arthur Koestler, introd. by Herbert Butterfield—*Macmillan*, 624 p., \$6.50. Beginning with the earliest Greek astronomers, the author charts man's broadening vision, pays particular attention to the contributions of Copernicus, Galileo, and above all, Kepler.

THE STRUCTURE AND FUNCTION OF SUBCELLULAR COMPONENTS—E. M. Crook, Ed.—*Cambridge Univ. Press*, 100 p., illus., \$4.25. Symposium discussed the question whether a cell has a real "geography" in the sense that its parts are held in place in relation to one another.

TECHNOLOGY IN AMERICAN WATER DEVELOPMENT—Edward A. Ackerman and George O. G. Löf; Conrad Seipp, Asst.—*Johns Hopkins Press* for Resources for the Future, 710 p., illus., \$10. Review of technological changes important in water development and water supply engineering.

A TEXTBOOK OF FLUID MECHANICS FOR ENGINEERING STUDENTS—J. R. D. Francis, Chapter on Gas Flow by G. Jackson—*Arnold, E. & Co. (St. Martins)*, 332 p., \$6.50. For first two years of engineering course.

35mm PHOTOGRAPHY: Approaches and Techniques with the Miniature Camera—Jacob Deschin—*Camera Craft*, rev. 2nd ed., 192 p., illus., \$5. Stresses techniques as a means of communicating impressions.

TOWARD UNDERSTANDING STUTTERING—Wendell Johnson—*Nat. Soc. for Crippled Children & Adults*, 40 p., paper, 25¢. Tells how parents can help their child toward better speech.

TRACKWAYS OF LIVING AND FOSSIL SALAMANDERS—Frank E. Peabody—*Univ. of Calif. Press*, 71 p., illus., 11 plates, paper, \$1.50. Deals with living terrestrial salamanders of western North America and fossil trackways from Lower Pliocene strata of the Sierra Nevada.

TRANSLATIONS OF RUSSIAN GAME REPORTS, Vol. 5 (Sable and Squirrel, 1951-55); Vol. 6 (Trapping and the Fur Industry, 1951-55)—V. L. Zaleker, I. D. Kiris and others, transl. from Russian by J. M. MacLennan—*Canad. Dept. of Northern Affairs & National Resources (Queen's Printer, Ottawa)*, 145 p. and 158 p. resp., paper, \$1 each. Of interest to game administrators and biologists. Last of series.

VEGETATION OF THE OUTER BANKS OF NORTH CAROLINA—Clair A. Brown—*La. State Univ. Press*, 179 p., illus., paper, \$3. Monograph on characteristic vegetation of grass-covered dunes, sand flats and salt marshes of the Cape Hatteras area.

WORKING WITH ANIMALS—J. Myron Atkin and R. Will Burnett—*Rinehart*, 67 p., illus. by Raymond Perlman, paper, \$1. Source booklet of activities about animal life for elementary school teachers. Emphasis is on science work the children can try out, feel, see and touch.

WORKING WITH PLANTS—J. Myron Atkin and R. Will Burnett—*Rinehart*, 58 p., illus. by Raymond Perlman, paper, \$1. Source for elementary science teachers, to give children basic understanding of how plants live and grow.

Science News Letter, May 23, 1959

# FOR SUMMER READING SCHEDULES

**FB12. FIELD BOOK OF COMMON ROCKS AND MINERALS.** By Frederick H. Loomis. For identifying the rocks and minerals of the United States and interpreting their origins and meanings. 370 pages, 50 color illustrations, 50 line cuts, 50 photographs. \$2.95

**FB5. FIELD BOOK OF AMERICAN WILD FLOWERS.**—revised edition. By F. Schuyler Mathews. The most popular, dependable, and convenient guide to the wild flowers and shrubs east of the Mississippi. With special color key, 32 color plates, 276 black and white illustrations, 558 pages. \$5.00

**FB31. EXPLORING THE DISTANT STARS.** By Clyde B. Glasson. A book for the large number of people who want to know more about astronomy—written in terms that anyone can understand. Line drawings and charts. 384 pages. \$5.00

**FB4. BIRDS OF THE OCEAN.** By W. B. Alexander. A handbook of all the seabirds of the world with notes on their habits and guides to their identification. New revised edition. 140 illustrations, 16 mo., 420 pp. \$7.50

**4563. THE "THINK CLEARLY" SERIES.** A 10-volume home-study course in logic and clear thinking showing how you can utilize these vital mental tools in everyday life. 10 softbound books cover scientific and efficient thinking, keys to rapid learning, etc. Nearly 500 pp. Illus. The entire set, special \$3.00

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**5947. FIELD BOOK OF INSECTS.** By Frank E. Lutz. All of the principal families, many of the genera and most of the commonly observed species of insects in the U. S. and Canada, recorded in a way to make recognition relatively easy. Much information regarding the habits of air, water, earth and underground insects. 100 plates illustrating almost 800 specimens, many in color. \$4.50

**5331. PREHISTORIC ANIMALS.** By Dr. J. Augusta and Z. Burian. The great and fearsome beasts of prey, extinct flowers, strange sea creatures—recognizable ancestors of many of today's animals—birds and fish—from earliest plant life to the emergence of Man—captured in 55 full-color paintings. The extensive text brilliantly blends the artist's skill with up-to-date scientific knowledge. This unique, absorbing, imported book served as the basis for a film that won the Grand Prix at the Venice Film Festival. 10 1/2" x 13 3/4". Pub. at \$12.50. Only \$9.95

**FB24. BEGINNER'S GUIDE TO WILD FLOWERS.** By Ethel Hincley Hausman. This is by far the most complete field guide to wild flowers, covering over a thousand species with an individual illustration and description for each flower. 384 pages, 1080 line drawings. \$3.50

**FB25. A BEGINNER'S GUIDE TO THE STARS.** By Kelvin McKready. A guide to help beginners in their very earliest steps toward recognizing the stars and planets. 98 pages, 28 line cuts and charts. \$2.00

**4786. IN SEARCH OF ADAM.** By Herbert Wendt. The greatest detective story of all time—the search for the truth about the origins of Man in the mists of the unrecorded past. Here, in one 550-page volume, is everything that is known about the kinship between humans and apes, the "missing link," and the mysterious lost races who may have been our first human ancestors. 48 pages of photos. Pub. at \$6.50. Only \$5.00

**FB27. BEGINNER'S GUIDE TO FRESH-WATER LIFE.** By Leon A. Hausman. An informal guide to over 250 of the most common forms of animal life found in swamps, pools, ponds, lakes and streams of the U. S. and Canada. Over 250 black and white illustrations. 128 pages. \$2.50

**FB28. BEGINNER'S GUIDE TO ATTRACTING BIRDS.** By Leon A. Hausman. A practical handbook on attracting birds showing how to build feeding stations, bird houses, seed trays, and other bird attracting devices. Illus. 4 1/2 x 7. 128 pages. \$2.50

**FB6. FIELD BOOK OF WESTERN WILD FLOWERS.** By Margaret Armstrong. 664 pages, 48 full-color plates, 600 line drawings. \$5.00

**B1035. WHERE WINTER NEVER COMES.** By Marston Bates. The author of "The Nature of Natural History" tells about the beauty of life in the tropics as well as the possible difficulties. He describes places, climate, customs, food and social background. 35 illustrations. Pub. at \$3.50. Only \$2.95

**FB10. FIELD BOOK OF COMMON FERNS.** By Herbert Durand. Detailed concise descriptions of the fifty fern species of eastern America with directions for their culture. 219 pages, 56 photographs, 52 line drawings. \$3.50

**FB9. FIELD BOOK OF COMMON MUSHROOMS.** By William S. Thomas. 164 species of mushrooms described and illustrated. Instructions on collecting and examining, propagation, structure, cooking, etc. 384 pages, 16 color plates, 24 photographs, 52 line cuts. \$5.00

**FB17. FIELD BOOK OF PONDS AND STREAMS.** By Ann Haven Morgan. A complete guide to the plants and animals that live in fresh water—their appearance, life and habits. Suggestions are made on the finding and collecting of water animals, and their care in aquaria. 464 pages, 23 color plates, 314 line cuts, 42 photographs. \$5.00

**FB18. FIELD BOOK OF SNAKES OF THE U. S. AND CANADA.** By Karl P. Schmidt and D. Dwight Davis. By respectively the Chief Curators of Zoology and Anatomy at Field Museum of Natural History, Chicago. Discusses history, folklore, definition and classification, collecting, preserving, treatment of snake bite, and place of snakes in nature. Gives systematic account of all North American and Canadian snakes. 378 pages, 4 color plates, 80 photographs, 103 line drawings. \$3.50

**FB19. FIELD BOOK OF MARINE FISHES OF THE ATLANTIC COAST.** By Charles M. Breder, Jr. General habits, range and most prominent features of each species found in the waters of Labrador to Texas. 370 pages, 395 line cuts, 16 photographs. \$5.00

**7129. MAC MILLAN WILD FLOWER BOOK.** By Clarence I. Hylander. A valuable guide to Wild Flowers, here is an art treasure to cherish through the years. It contains an outstanding collection of glorious water-color reproductions of 426 wild flowers, with concise commentary on each. Pub. at \$15.00. Only \$8.95

**FB20. FIELD BOOK OF GIANT FISHES, WHALES AND DOLPHINS.** By J. R. Norman and F. C. Fraser. In non-technical language covers the appearance, structures, habitat, diet and breeding habits. 398 pages, 8 color plates, 128 line cuts. \$3.50

**FB21. FIELD BOOK OF SEASHORE LIFE.** By Roy Waldo Miner. A compact manual of all the invertebrate animals inhabiting the shallow oceanic waters of the Atlantic Coast. Superbly illustrated with 24 color plates and over 200 line cuts covering approximately 1300 species. The classic has been twenty years in preparation. 630 pages. \$7.00

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**5536. LOVE IN THE SOUTH SEAS.** By Bengt Danielsson, anthropologist on the Kon-Tiki voyage. A complete, accurate, frankly written account of the family and sex life of the Polynesians, that deals with sex instruction, marriage customs, sexual freedom and prohibitions, attitude toward nudity, abortion and virginity, and the basic concepts of a people to whom the sexual act is as natural as eating and drinking. Photos. Pub. at \$4.00. Only \$3.25

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