

# 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 Department, Science Service, 1719 N St., N.W., Washington, D. C. 20036.

**ANXIETY AND TENSION CONTROL:** A Physiologic Approach—Edmund Jacobson, M.D.—Lippincott, 216 p., illus., \$9. Includes self-operations control manual to help patient lessen nervous tension through muscular relaxation exercises.

**AUDIO AND ACOUSTICS**—G. A. Briggs with James Moir—Wharfedale Wireless (Herman Pub. Serv., Stamford, Conn.), 167 p., photographs, diagrams, paper, \$2.95. Up-to-date concise treatment of the reproduction of high-fidelity sound.

**AURORAE AND AIRGLOW**—V. I. Krasovskiy, Ed., transl. from Russian—NASA (OTS), 91 p., illus., paper, \$2.25. Articles deal with spectral, electrophotometric and radar investigations of aurorae and airglow.

**CEREBRAL FUNCTION IN INFANCY AND CHILDHOOD**—Albrecht Peiper, transl. by Benedikt and Hilde Nagler from 3rd rev. German edition—Consultants, 683 p., illus., \$25. Traces the development of human activity as a consequence of the infant's ability to perceive through its sensory activity, studying its facial expression, posture, locomotion, reflexes, respiration, food intake, sleep and response to environment.

**THE CIGARETTE HABIT: An Easy Cure**—Arthur H. Cain—Doubleday, 106 p., paper, 95¢. Originally (1959) published as "The Cigarette Habit" under the author's pen name, Arthur King.

**COLONIAL FURNITURE MAKING FOR EVERYBODY**—John Gerald Shea—Van Nostrand, 214 p., photographs, diagrams, \$7.95. Step-by-step instructions for more than 100 projects for the hobbyist in his workshop.

**THE CYATHASPIDIDAE: A Family of Silurian and Devonian Jawless Vertebrates**—Robert H. Denison—Chicago Nat. Hist. Mus., 167 p., illus., paper, \$5. Presents detailed study of the morphology of this early group of vertebrates, with systematic revision primarily concerned with North American forms.

**EQUIVALENT AND EUIDECOMPOSABLE FIGURES**—V. G. Boltyskii, transl. from Russian by Alfred K. Henn and Charles E. Watts—Heath, 68 p., diagrams, \$1.85. Deals with a class of problems fundamental to the theories of area and volume.

**THE FIBONACCI NUMBERS**—N. N. Vorobyov, transl. from Russian by Norman D. Whaland, Jr. and Olga A. Tittelbaum—Heath, 47 p., paper, \$1.35. Discusses the elementary properties of Fibonacci numbers (derived from the famous "rabbit problem"), their applications to geometry, and their connection with the theory of continued fractions.

**FILTRATION FLOWS IN HETEROGENEOUS MEDIA: A Statistical Approach**—Mark Iosifovich Shvidler, transl. from Russian—Consultants, 104 p., paper, \$27.50. Presents results obtained while studying filtration processes in heterogeneous media, knowledge needed for the rational location of wells over deposits and for optimal choice of exploitation method.

**THE GEOGRAPHY OF MODERN AFRICA**—William A. Hance—Columbia Univ. Press, 655 p., photographs, 100 maps, \$12. Focus is on the present state of economic development and the potentialities for development in the years ahead, particular attention is paid to tropical Africa.

**HOW TO CONSTRUCT GRAPHS**—G. E. Shilov, transl. from Russian by Jerome Kristian and Daniel A. Levine—SIMPLEST MAXIMA AND MINIMA PROBLEMS—I. P. Natanson, transl. from Russian by C. Clark Kissinger and Robert B. Brown—Heath, 53 p., diagrams, paper, \$1.50. From the extracurricular literature in mathematics in the Soviet Union.

**HYDROGEOLOGY**—J. B. Lamarck, transl. by Albert V. Carozzi—Univ. of Ill. Press, 152 p., photograph, \$4.75. An annotated English translation of the French scientist's almost unknown work on geology, preceded by an analysis of Lamarck's geological background.

**HYPERBOLIC FUNCTIONS**—V. G. Shervator, transl. from Russian by A. Gordon Foster and Coley Mills, Jr.—Heath, 55 p., diagrams, paper, \$1.55. Introduces the hyperbolic sine, hyperbolic cosine and hyperbolic tangent in connection with the geometric properties of the hyperbola, and discusses natural logarithms.

**INDUCTION IN GEOMETRY**—L. I. Golovina and I. M. Yaglom, transl. from Russian by A. W. Goodman and Olga A. Tittelbaum—Heath, 106 p., diagrams, paper, \$2.10. Contains chapters on computation, proof and construction by induction, on definitions by induction, and induction on the number of dimensions.

**INTERNATIONAL SYMPOSIUM ON THE CONTROL OF CELL DIVISION AND THE INDUCTION OF CANCER**—C. C. Congdon and Pablo Mori-Chavez, Eds.—National Cancer Institute (GPO), 403 p., 30 plates, \$4.50. Papers deal with cellular alterations by viruses, stem cell renewal systems and radiation effects, and cancer induced by radiation and by chemical substances.

**AN INTRODUCTION TO MODERN PHYSICS**—H. Messel and S. T. Butler, Eds.—St. Martins, 273 p., illus., \$5. Record of a series of lectures given for science teachers by world authorities at the third Nuclear Research Foundation Summer School in Australia.

**AN INTRODUCTION TO THE THEORY OF GAMES**—E. S. Venttsel', transl. by Jerome Kristian and Michael B. P. Slater—Heath, 66 p., diagrams, paper, \$1.75. Gives a simplified discussion of the elements of the theory of games and of some methods for solving game matrices.

**LANGUAGE AND THOUGHT IN SCHIZOPHRENIA**—J. S. Kasanin, Ed., preface by Nolan D. C. Lewis—Norton, 133 p., paper, \$1.45. Using different techniques, investigators examine and analyze the verbal productions of schizophrenics.

**LIFE IN THE SEA**—Gosta Jagersten—Basic Bks., 184 p., photographs by Lennart Nilsson, \$10. Shows the fascinating hidden animal world of the sea in its habitat and biological relationships, each picture fully described by zoologist.

**MECHANICAL TWINNING OF CRYSTALS**—M. V. Klassen-Neklyudova, transl. from Russian by J. E. S. Bradley—Consultants, 213 p., illus., \$19.50. Monograph deals not only with lattice reorientation in response to mechanical stress, but includes martensite transformations, recrystallization twins, ferroelectric and magnetic domains.

**MICROSCOPE AND THE WORLD OF SCIENCE**—Marvin F. Riemer—Herman Pub. Serv., 334 p., illus., \$3.95. Elementary introduction and experiments for the amateur microscopist.

**AN OUTLINE OF THE CLINICAL PHYSIOLOGY OF THE CIRCULATION**—V. V. Parin and F. Z. Meyerson, transl. from Russian—NASA (OTS), 519 p., illus., paper, \$7. Describes the principal problems of the physiology and pathology of circulation, illustrated with references to the experimental work done by Soviet and foreign scientists.

**PESTICIDES AND THE LIVING LANDSCAPE**—Robert L. Rudd—Univ. of Wis. Press, 320 p., \$6.50. A thorough and authoritative examination of the nature and effects of chemical pesticides, based on available statistical and analytical data, with emphasis on the price man pays for the methods he uses in combatting infectious and predatory creatures in the biological competition.

**PRECALCULUS MATHEMATICS**—Herman Meyer—Van Nostrand, 365 p., \$7.50. Text is proof oriented with the primary purpose to involve the student in the proofs of theorems in preparation for the more sophisticated arguments that appear in the study of calculus.

**PROFILE OF THE NEGRO AMERICAN**—Thomas F. Pettigrew—Van Nostrand, 250 p., \$5.95. Extensively documented, this volume by social psychologist attempts to understand the individual Negro American and to ascertain "what happens to a dream deferred."

**PROOF IN THE GEOMETRY**—A. I. Fetisov, transl. from Russian by Theodore M. Switz and Luise Lange—Heath, 55 p., diagrams, paper, \$1.40. Discusses the construction of geometric proofs and gives criteria useful for determining whether or not a proof is logically correct and whether or not it actually proves what it is meant to prove.

**QUANTUM MECHANICS**—H. A. Kramers, transl. by D. ter Haar—Dover, 496 p., paper, \$2.75. Unabridged and corrected republication of work first published in 1957.

**RADIATION AND IMMUNE MECHANISMS**—William H. Talaferro, Lucy Graves Talaferro and Bernard N. Jaroslow—Academic Press, 152 p., \$5.95; paper, \$3.45. Outlines the humoral and cellular phases of innate and acquired immune mechanisms and describes effects produced by subjecting the body to hard X- or gamma radiation.

**RESEARCH AND DEVELOPMENT IN INDUSTRY 1961:** Final Report on a Survey of R&D Funds, 1961, and R&D Scientists and Engineers, Jan. 1962—George C. Nichols and others—National Science Foundation (GPO), 123 p., paper, 65¢. Summary discussion of data, and statistical tables.

**REVIEW OF CHILD DEVELOPMENT RESEARCH, Vol. I**—Martin L. Hoffman and Lois Wladis Hoffman—Russel Sage Foundation, 547 p., \$8. Collection and interpretation of current research, ranging from discussion of the effects of infant training to findings about genetics and behavior development.

**SAFE HANDLING OF RADIOACTIVE MATERIALS:** National Bureau of Standards Handbook 92—NBS (GPO), 107 p., paper, 40¢. Recommendations of the National Committee on Radiation Protection. Supersedes Handbook 42.

**SCIENCE IS UNDERSTANDING**—Wilbur L. Beauchamp, John C. Mayfield and Paul DeHart Hurd—Scott, 480 p., illus., \$4.76. Eighth-grade science course, offers both basic content and enrichment material.

**THE SCIENCE OF LIFE**—Lawrence S. Dillon with Elizabeth S. Dillon—Macmillan, 824 p., 400 illus., \$8.50. Text presents the basic principles of every discipline which has to do with the living world, both traditional concepts and new ideas are treated as problems for research.

**THE SCIENCE OF SOUND**—John Tyndall, introd. by Alexander Joseph—Philosophical Lib., 480 p., illus., \$6. Reprint of third edition published in 1875.

**SEASIDE PLANTS OF THE WORLD: A Guide to Planning, Planting and Maintaining Salt-Resistant Gardens**—Edwin A. Menninger—Hearthsides Press, 303 p., 400 photographs, \$9.95. Encyclopedic reference to more than 1,500 species in 875 genera, for horticulturist, conservationist and the gardener who lives near the sea or in desert areas.

**SMOKING: The Great Dilemma**—Ruth and Edward Brecher—Public Affairs Pamphlets, No. 361, 28 p., illus. by Robert Osborn, paper, 25¢ direct to publisher, 381 Park Ave. S., New York, N. Y. 10016. Emphasis is on how to reduce the health hazards from smoking among the younger generation.

**SPACE PHYSICS AND RADIO ASTRONOMY**—H. Messel and S. T. Butler, Eds.—St. Martins, 174 p., illus., \$4.25. Series of lectures prepared specifically to bring science teachers up to date on the techniques for investigating distant stars and galaxies, and on the physics of flight and artificial satellites.

**STABILITY AND CONTROL OF AIRPLANES AND HELICOPTERS**—Edward Seckel—Academic Press, 506 p., diagrams, \$15. Textbook for advanced undergraduate or graduate student, emphasis is on physical aspects of the subject, as well as on mathematical analysis.

**STRESS WAVES IN SOLIDS**—H. Kolsky—Dover, 213 p., illus., paper, \$1.55. Reprint (1953), includes list of relevant books and review articles up to 1963.

**STUDIES IN LARGE PLASTIC FLOW AND FRACTURE**—P. W. Bridgman—Harvard Univ. Press, 362 p., illus., \$9.75. Reissue of 1952 edition of the late author's coordinated presentation of experience with tests under hydrostatic pressure and other tests involving large deformations.

**SURFACE PROPERTIES OF SEMICONDUCTORS**—A. N. Frumkin, Ed., transl. from Russian by A. Tybulewicz—Consultants, 171 p., illus., paper, \$22.50. Presents studies of the effect of the surface state of semiconductors, principally germanium and silicon, on their electrical properties.

**SYNTHESIS OF ORGANOSILICON MONOMERS**—A. D. Petrov and others, transl. from Russian by C. Nigel Turton and Tatiana I. Turton—Consultants, 492 p., diagrams, \$22.50. A comprehensive account of the authors' methods for synthesizing organosilicon substances, including complete description of the compounds produced and their relationship to the previous classes of monomers.

**THE TELESCOPE AND THE WORLD OF ASTRONOMY**—Marvin F. Riemer—Scope Instrument Corp. (Herman Pub. Serv.), 211 p., illus., \$3.95. For the amateur astronomer, describes equipment for sky watching, fundamental knowledge needed for successful observations, and work program for beginners.

**UNDERSTANDING TELEVISION: An Introduction to Broadcasting**—Robert L. Hilliard, Ed.—Hastings House, 254 p., illus., \$6.95; paper, \$3.95. Acquaints student and layman with the organization of television, with studio and control equipment, production, direction and staging procedures.

**UNITED STATES AIRCRAFT, MISSILES AND SPACECRAFT, 1964**—James J. Haggerty, Jr., Ed.—Nat. Aerospace Educ. Council, 168 p., photographs, diagrams, paper, \$2. Depicts and describes highlights of aerospace events, specifications and data on military and civil aircraft, missiles and launch vehicles.

**THE UNIVERSE AND ITS ORIGIN**—H. Messel and S. T. Butler, Eds.—St. Martins, 147 p., illus., \$3.75. Contains sections on the differing theories regarding the formation and evolution of the universe and a discussion of the origin of cosmic radiation. Specifically prepared to bring science teachers up to date.

**WAVE MECHANICS AND ITS APPLICATIONS**—N. F. Mott and I. N. Sneddon—Dover, 393 p., paper, \$2.25. Unabridged republication of 1948 edition.

**THE WEIZMANN INSTITUTE OF SCIENCE: Scientific Activities 1962-1963**—Foreword by Schneior Lifson, Scientific Dir.—245 p., photographs, paper, for copy write direct to the Institute in Rehovoth, Israel. Summaries of research activities and publications in new fields of inquiry.

**WORLD DESIGN SCIENCE DECADE 1965-1975, Phase I (1963): Inventory of World Resources, Human Trends and Needs. Phase II (1964): The Design Initiative**—R. Buckminster Fuller and John McHale, Dir.—World Resources Inventory, 81 p., 166 p., illus., paper, write directly to publisher, Southern Ill. University, Carbondale, Ill. World retooling design proposed to the Int'l Union of Architects for adoption by world architectural schools.

• Science News Letter, 86:44 July 18, 1964