

damental principles usually associated with each subject.

E. A. Bonney, in writing the "Aerodynamics" section, limits himself to discussion of the supersonic speed range. This limitation is based on his assumption that, in the guided-missile field, the supersonic speed range is the only one of practical importance. Encompassing such topics as atmospheric conditions, shock and expansion waves, missile configurations, and static and dynamic stability, this particular section is of a non-mathematical nature.

"Propulsion," by M. J. Zucrow, is directed toward the establishment of the fundamental principles governing the internal-flow characteristics of power plants employed in guided missiles. Discussing such topics as the gas-dynamic equations, nozzles, diffusers, and various classes of engines, this section does at times have an overabundance of mathematical equations. However, no sacrifice has been made in the explanation of important concepts.

Design problems resulting from flight loads, environmental conditions, and reliability requirements are discussed in "Structures and design practice," by C. W. Besserer. Chapters outlining the principles of packaging engineering and component and composite design are also included. The title of this particular section is somewhat misleading in that the word *structures* is not employed in its more usual sense but is meant to imply "structural materials."

All three sections are accompanied by extensive references for those who wish to make further investigation of any subject.

In short, this is a well-written and easily read book—a definite necessity for those engaged in guided-missile design.

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New Books

Tranquilizing Drugs. A symposium held under the auspices of the American Association for the Advancement of Science in cooperation with the American Psychiatric Association and the American Physiological Society at the AAAS Atlanta, Ga., meeting, 27–28 Dec. 1955. Publ. No. 46. Harold E. Himwich, Ed. American Association for the Advancement of Science, Washington, D.C., 1957. 197 pp. \$5; \$4.50, AAAS members.

The Modern Universe. Raymond A. Lytleton. Harper, New York, 1957. 207 pp. \$3.

Geologie Sedimentaire. Les series marines. Augustin Lombard. Masson, Paris; Vaillant-Carmanne, Liege, 1956. 722 pp. F. 11,000.

Nature's Guardians, Your Career in Conservation. Messner, New York, 1957. 192 pp. \$3.50.

Human Factors in Air Transportation. Occupational health and safety. Ross A. McFarland. McGraw-Hill, New York, 1953. 830 pp.

When Doctors Meet Reporters. A frank discussion by science writers and physicians of the controversy between the press and the medical profession. Compiled by Hillier Kriegbaum, from the record of a series of conferences sponsored by the Josiah Macy, Jr., Foundation. Published for the foundation by New York University Press, New York, 1957. 119 pp. \$2.50.

Optics. The science of vision. Vasco Ronchi. Translated from the Italian and revised by Edward Rosen. New York University Press, New York, 1957. 360 pp. \$10.

Practical Applications of Engineering Soil Maps. Engineering Soil Survey of New Jersey, Rept. No. 22. William W. Holman, Robert K. McCormack, James P. Minard, Alfred R. Jumikis. Rutgers University, New Brunswick, N.J., 1957. 113 pp. \$3.

Cold Injury. Transactions of the fourth conference 7–9 Nov. 1955, Princeton, N.J. M. Irene Ferrer, Ed. Josiah Macy, Jr., Foundation, New York, 1956. 371 pp. \$5.95.

Investigation of Virus Diseases of Brascia Crops. Agricultural Research Council Rept. Ser. No. 14. L. Broadbent. Cambridge University Press, New York, 1957. 94 pp. \$3.

John Muir, Father of Our National Parks. Charles Norman. Messner, New York, 191 pp. \$2.95.

Coal Science. Aspects of coal constitution. D. W. Van Krevelen and J. Schuyer. Elsevier, New York, 1957 (order from Van Nostrand, Princeton, N.J.), 352 pp. \$9.50.

Meat Hygiene. WHO Monograph Ser. No. 33. World Health Organization, Geneva, 1957 (order from Columbia University Press, New York). 511 pp. \$10.

Gestation. Transactions of the third conference 6–8 Mar. 1956, Princeton, N.J. Claude A. Villee, Ed. Josiah Macy, Jr., Foundation, New York, 1957. 253 pp. \$4.75.

A Naturalist in Palestine. Victor Howells. Philosophical Library, New York, 1957. 180 pp. \$6.

Butterflies. E. B. Ford. Collins, London, ed. 3, 1957 (order from Macmillan, New York). 368 pp. \$6.

The Population of Jamaica. George W. Roberts. Published for the Conservation Foundation at Cambridge University Press, New York, 1957. 356 pp. \$7.50.

The Physiology of Reproduction in Fungi. Cambridge Monographs in Experimental Biology No. 6. Lilian E. Hawker. Cambridge University Press, New York, 1957. 128 pp. \$3.

Treatise on Invertebrate Paleontology. pt. L. *Mollusca 4, Cephalopoda, Ammonoidea.* Raymond C. Moore, Ed. Geological Society of America and University of Kansas Press, 1957 (order from the Geological Society of America, 419 W. 117 St., New York 27). 490 pp.

The Defect Solid State. T. J. Gray, D. P. Detwiler, D. E. Rase, W. G. Lawrence, R. R. West, T. J. Jennings. Interscience, New York, 1957. 511 pp. \$11.

The Electrical Production of Music. Alan Douglas. Philosophical Library, New York, 1957. 223 pp. \$12.

Television Engineering, Principles and Practice. vol. 3. *Waveform Generation.* BBC Engineering Training Manuals. S. W. Amos and D. C. Birkinshaw. Iliffe, London; Philosophical Library, New York, 1957. 226 pp. \$15.

Television Receiving Equipment. W. T. Cocking. Iliffe, London; Philosophical Library, New York, ed. 4, 1957. 454 pp. \$15.

Modern Chemistry for the Engineer and Scientist. G. Ross Robertson. McGraw-Hill, New York, 1957. 442 pp. \$9.50.

Automation: Its Purpose and Future. Magnus Pyke. Philosophical Library, New York, 1957. 191 pp. \$10.

Emotional Illness: How Families Can Help. Karl R. Beutner and Nathan G. Hale, Jr. Putnam, New York, 1957. 158 pp. \$2.75.

The Water Relations of Terrestrial Arthropods. Cambridge Monographs in Experimental Biology No. 5. E. B. Edney. Cambridge University Press, New York, 1957. 109 pp. \$3.

Fleas, Flukes and Cuckoos. A study of bird parasites. Miriam Rothschild and Theresa Clay. Macmillan, New York, 1957. 305 pp. \$5.

Miscellaneous Publications

(Inquiries concerning these publications should be addressed, not to Science, but to the publisher or agency sponsoring the publication.)

Atomic Energy Commission, Twenty-first Semiannual Report. U.S. Atomic Energy Commission, Washington, 1957. (order from Supt. of Documents, GPO, Washington 25). 396 pp.

Research in Industrial Education, Summaries of Studies 1930–1955. Vocational Division Bull. No. 264. Trade and Industrial Series No. 65. U.S. Department of Health, Education, and Welfare, Office of Education, Washington, 1957 (order from Supt. of Documents, GPO, Washington 25). 527 pp. \$1.75.

Cephalochordata. John Murray Expedition 1933–34. Scientific Reports, vol. X, No. 3, 8 pp. 6s.; *Variation in the Western Zosteropidae (Aves).* Bulletin of the British Museum (Natural History), Zoology, vol. 4, No. 7. R. E. Moreau. 135 pp. 35s.; *Studies on the Structure and Taxonomy of Bulinus jousseaumei (Dautzenberg).* Bulletin of the British Museum (Natural History), Zoology, vol. 5, No. 1. C. A. Wright. 29 pp. 10s. British Museum (Natural History) London, 1957.

Virus and Viruslike Diseases of Stone Fruits in Utah. A handbook for their identification and control. Bull. 384. B. L. Richards and L. C. Cochran. Utah Agricultural Experiment Station, Division of Agricultural Sciences and Utah Agricultural Experiment Station, Salt Lake City, 1957. 130 pp. \$1.50.

The Student's Role in College Policy-Making. A report prepared by Harry H. Lunn, Jr., for the Commission on Student Personnel of the American Council on Education. American Council on Education, Washington, 1957. 100 pp. \$1.