

co-workers have mightily contributed, are ultrasonic methods of measuring dynamic properties of gases, liquids, and solids. This is the subject of the last three chapters which take up almost one third of the work and contain a wealth of information.

The book is well readable, the exposition mostly concise, experimental material clearly represented, the typography excellent. It is an absolute must for everybody concerned with piezoelectricity or neighboring fields.

Hans Baerwald

The Brush Development Co.

Briefly Noted

American Standard Test Code for Apparatus Noise Measurement, Z24.7-1950. 11 pp. Sponsor, Acoustical Society of America. American Standards Association, Inc., New York, N. Y. \$0.50.

A committee sponsored by the Acoustical Society of America under the procedures of the American Standards Association has developed a standard establishing uniform methods of conducting and recording sound-level tests on apparatus. The standard, intended as a guide for those who use sound-level meters that meet the requirements of the American Standard Sound-Level Meters for Measurement of Noise and Other Sounds, Z24.3-1944, includes procedures for factory tests of equipment, field investigations, and sound-level specifications. The section devoted to factory tests contains methods for measurement of direct air-borne noise, reflected sound, ambient sound, apparatus mounting, location of microphone, standing waves, record of measurements, and noise measurements. For field investigations the method of measurement of apparatus and ambient sound level, the difference between apparatus and ambient sound level, and the effects of environment are furnished.

A Study of the Effects of Form Factors on the Translation of the Inherent Physical Properties of Textile Fibers into Textile Structure. PB 100 363. 326 pp. Office of Technical Services, U. S. Department of Commerce, Washington 25, D. C., 1951. \$8.25.

This review, prepared by the Research and Development Branch of the Army Quartermaster Corps, constitutes a preliminary stage in research designed to determine how the inherent properties of fibers can best be translated into fabrics possessing the desired characteristics of wear resistance, water resistance, fireproofing, shrink resistance, and color fastness. The review's 1053 abstracts cover mechanical behavior and plastic theory, physical form, mechanical properties, viscosity deformation, adsorption, solvation and density, friction, fiber theory, yarn theory, fabric theory, sub-fiber structure, testing, fibers, yarns, fabric, and the modification of properties through finishing.

ASTM Manual on Quality Control of Materials (STP No. 15-C), 100 pages, in heavy paper cover. American Society for Testing Materials, 1916 Race Street, Philadelphia 3, Pa., \$1.75.

A new *ASTM Manual on Quality Control of Materials*, sponsored by Committee E-11 on Quality Control of Materials, has been issued and takes the place of the widely used *ASTM Manual on Presentation of Data*. The revised Manual is organized in three parts. Part 1 essentially covers the presentation of data; Part 2 presents limits of uncertainty of an observed average; Part 3 explains the control chart method of analysis.

Books Received

FUNDAMENTALS OF OPTICS (Second Edition). By Francis A. Jenkins and Harvey E. White. 647 pp. McGraw-Hill Book Company, Inc., New York, 1950. \$7.00.

VOLTAGE STABILIZERS. By F. A. Benson. 125 pp. Electronic Engineering, London, 1950. 12/6.

BIBLIOGRAPHY OF TECHNICAL REPORTS. Office of Technical Services, U. S. Department of Commerce, Washington, D. C., 1950. \$0.50.

ELECTROPHYSIOLOGICAL TECHNIQUE. By C. J. Dickinson. 141 pp. Electronic Engineering, London, 1950. 12/6.

THE ATOMIC-MOLECULAR THEORY. By Leonard K. Nash. 115 pp. Harvard University Press, Cambridge, 1950. \$1.35.

RECEIVING TUBE SUBSTITUTION GUIDE BOOK. By H. A. Middleton. 208 pp. John F. Rider, Inc., New York, 1950. \$2.40.

ENCYCLOPEDIA ON CATHODE-RAY OSCILLOSCOPES AND THEIR USES. By John F. Rider and Seymour D. Uslan. 922 pp. John F. Rider, Inc., New York, 1950. \$9.00.

QUANTUM THEORY. By David Bohm. 672 pp. Prentice-Hall, Inc., New York, 1950. \$10.00.

NUCLEAR RADIATION PHYSICS. By R. E. Lapp and H. L. Andrews. 487 pp. Prentice-Hall, Inc., New York, 1950. \$6.00.

PLASTICS RESEARCH AND TECHNOLOGY AT THE NATIONAL BUREAU OF STANDARDS. National Bureau of Standards Circular 494. 14 pp. U. S. Government Printing Office, Washington 25, D. C. \$0.15.

HEAT TREATMENT AND PROPERTIES OF IRON AND STEEL. National Bureau of Standards Circular 495. By Samuel J. Rosenberg and Thomas G. Digges. 33 pp. U. S. Government Printing Office, Washington 25, D. C., 1950. \$0.25.

THE PRIMEVAL ATOM—AN ESSAY ON COSMOGONY. By Canon Georges Lemaitre. Translated by Betty H. Korff and Serge A. Korff. 185 pp. D. Van Nostrand Company, Inc., New York, 1950. \$3.00.

WAVE THEORY OF ABERRATIONS. By H. H. Hopkins. Monographs on the Physics and Chemistry of Materials, Vol. 7. 167 pp. Oxford University Press, London, 1950. \$3.00.

FOUNDATIONS OF AERODYNAMICS. By A. M. Kueth and J. D. Schetzer. 374 pp. John Wiley and Sons, Inc., New York, 1950. \$5.75.

FIBERGLAS BIBLIOGRAPHY. Annotated References to Selected Articles (Third Edition). 88 pp. Owens-Corning Fiberglas Corporation, Toledo, Ohio, 1950.

PHOTONS AND ELECTRONS (Methuen's Monographs on Physical Subjects). By K. H. Spring. 108 pp. John Wiley and Sons, Inc., New York, 1950. \$1.75.

THE EFFECTS OF ATOMIC WEAPONS. Compiled by the Los Alamos Scientific Laboratory. 456 pp. McGraw-Hill Book Company, New York, 1950. \$3.00.

PRINTED CIRCUITS—FINAL REPORT. PB 100 950. 99 pp. Office of Technical Services, U. S. Department of Commerce, Washington 25, D. C., 1950. \$1.75.

THEORY OF FUNCTIONS OF A REAL VARIABLE AND FOURIER'S INTEGRAL. By E. W. Hobson. Vol. I (Third Edition), 752 pp. Vol. II (Second Edition), 790 pp. Harren Press, Washington 7, D. C. \$15.00 Set.

DE RE METALLICA. By Georgius Agricola. Translated by Herbert C. Hoover and Lou H. Hoover. Reprinted from 1912 edition. 638 pp. Dover Publications, Inc., New York, 1950. \$10.00.