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## NEW BOOK

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**Scientific Instruments.** By HERBERT J. COOPER, Editor, Head of Engineering Department, South-West Essex Technical College and School of Art. Chemical Publishing Co., Inc., Brooklyn, N. Y., 1946. vi + 305 pp. Price, \$6.00.

Scientific instruments are here described in a way that may be understood by the non-specialist so that the worker in one field may get a useful idea of the instruments used in another. The editor and his fourteen contributors have covered a wide range of topics. Five sections, with a total of twenty-nine chapters, are concerned with:

**Section 1. Optical Instruments.**—Lenses, Cameras (including Projectors, Epidiascope, Cine-Cameras and Cine-Projectors), Microscope and Electron Microscope, Polarimeters, Photometers, Range-finders, Refractometers and Inter-Spectroscopes (X-Ray and Mass-Spectrographs), Telescopes (Refracting and Reflecting).

**Section 2. Measuring Instruments.**—Density, Dimension, Electrical, Fluid, Pressure, Temperature, Time, Speed, Weight.

**Section 3. Navigational and Surveying Instruments.**—Barometer, Barograph and Altimeter, Gyroscopic Instruments, The Mariner's Compass, The Sextant, Sounding Equipment, Surveying Instruments.

**Section 4. Liquid Testing.**—Viscosity Measurement.

**Section 5. Miscellaneous.**—Acoustics, Calculating Machines, Hardness Indicators, Vacuum Tubes and Thermionic Valves.

In the opinion of the reviewer, there is great need for a book of this nature because it is evident that scientific and industrial instruments are available in such great number and variety that it is difficult, even for the specialist, to keep pace with their development. This volume is not particularly useful in meeting the requirements. The average investigator would be poorly prepared indeed if he were not familiar with most of the instruments here described or with the brief details concerning each instrument. This may not be true for the average student and it may well be worth his time to peruse the contents. Some sections are very carelessly prepared and the errors are hardly ascribable to hasty proof reading. Proper names change without notice and in the paragraph on the supersonic oscillator, page 227, the French savant Langevin (properly introduced on the preceding page) becomes Professor Longevin, inventor of the sonic sounder. The brothers Curie have become Curres in the same paragraph and in the phenomenon which they discovered, the reader is given the wide choice of calling it the piezo, peizo or piezzo electric effect.

The short chapter on vacuum tubes and thermionic valves is concerned primarily with the electron physics and characteristics of these devices and the reader is given little or no indication of how they supplement other instruments and provide the countless intermediate functions in so many modern instruments.

The examples are chosen exclusively from British manufacturers and as such will bear little relationship to American practice. Conversely, there is ample evidence, especially in optical instruments, of the excellence and fine craftsmanship of the British instrument maker.

The book is printed on a grade of paper to be found in the better comic books ("penny dreadfuls"). The numerous line drawings and photographs have suffered in reproduction although many of the latter give evidence of having originated from high class retouched commercial illustrations. In subject matter and in execution the

book is not consonant with the high price. Editor and publisher have intimated the appearance of further volumes and revisions. The subject is worthy of more extensive and careful treatment.

RALPH H. MÜLLER

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## BOOKS RECEIVED

February 10, 1947–March 10, 1947

JESSE P. GREENSTEIN. "Biochemistry of Cancer." Academic Press, Inc., 125 East 23rd St., New York 10, N. Y. 389 pp. \$7.80.

PHILIP B. HAWK, BERNARD L. OSER AND WILLIAM H. SUMMERSON. "Practical Physiological Chemistry." Twelfth Edition. The Blakiston Company, Philadelphia, Pa. 1323 pp. \$10.00.

A. T. HENRICI (Revised by C. E. Skinner, C. W. Emmons and H. M. Tsuchiya). "Molds, Yeasts and Actinomycetes." Second Edition. John Wiley and Sons, Inc., 440 Fourth Ave., New York 16, N. Y. 409 pp. \$5.00.

D. E. LEA. "Actions of Radiations on Living Cells." The Macmillan Company, 60 Fifth Avenue, New York, N. Y. 402 pp. \$4.50.

J. MATTAUCH AND S. FLUEGGE. "Nuclear Physics Tables" by J. Mattauch and "An Introduction to Nuclear Physics" by S. Fluegge. Interscience Publishers, Inc., 215 Fourth Ave., New York 3, N. Y. 173 pp. + 8 plates (4-color). \$12.00.

FRANCIS J. MURRAY. "The Theory of Mathematical Machines." King's Crown Press (Division of Columbia University Press), 1145 Amsterdam Ave., New York 26, N. Y. 116 pp. \$3.00.

W. W. PIGMAN AND M. L. WOLFROM, Editors. "Advances in Carbohydrate Chemistry." Vol. II. Academic Press, Inc., 125 East 23rd St., New York 10, N. Y. 324 pp. \$6.60.

ROBERT L. WEBER, MARSH W. WHITE AND KENNETH V. MANNING. "College Technical Physics." McGraw-Hill Book Company, Inc., 330 West 42nd St., New York, N. Y. 761 pp. \$3.50.

D. WRIGHT WILSON. "A Laboratory Manual of Physiological Chemistry." Sixth Edition. The Williams and Wilkins Company, Mt. Royal and Guilford Aves., Baltimore 2, Md. 275 pp. \$2.50.

"Abridged Scientific Publications from the Kodak Research Laboratories." Vol. XXVII. Eastman Kodak Company, Rochester 4, N. Y. 314 pp.

"Abstract Bulletin N. S. No. 12. Abstracts of Current Information on Insect and Rodent Control." Insect Control Committee Coördination Center, National Research Council, Washington 25, D. C. 89 pp.

"Jubilee Volume, Emil Barel." Dedicated to Emil Christoph Barel, President of F. Hoffmann-La Roche and Co., on the Occasion of the Fiftieth Anniversary of his Association with the House of Roche by the Scientific Workers of the Roche Companies, Basle, Switzerland, June 27, 1946. 468 pp. Illustrated.