motion, the integral principles of dynamics, the Hamilton-Jacobi theory, periodic and conditionally periodic motion, and the use of the action function, thus leading toward a natural transition to wave mechanics.

Elasticity and hydrodynamics cover 175 pages. Besides the usual topics, some elementary applications to problems in applied mechanics are used to illustrate elasticity theory. Vibrations and the theory of wave propagation in elastic media, and the effect of boundary conditions, are treated with particular clarity. Hydrostatics, surface phenomena, the hydrodynamics of ideal and viscous fluids, and wave propagation in fluids, including a brief account of supersonic flow, complete the chapter.

Another 175 pages are devoted to electrodynamics, including a section on the application of 4-terminal networks, and a brief account of the matrix theory of networks. A chapter on optics, of 125 pages, covers geometrical optics, interference, diffraction, and crystal optics. These two chapters prepare the way for the necessity of introducing relativity theory, which is presented in a particularly lucid chapter of 60 pages, covering the electrodynamics of moving bodies and the formulation of the field equations in Lorentz-invariant form, ending with a brief section on ground relativity.

The volume concludes with a 98-page chapter on thermodynamics. This includes classical thermodynamics: the thermodynamic potentials, phase rule, Nernst's theorem, applications to chemistry, as well as theory of heat radiation, and a brief treatment of heat conduction. Statistical treatment is reserved for the second volume, as are all topics depending on the atomic nature of matter.

A useful feature of the book is a brief paragraph at the beginning of most sections, describing the topics treated in that section and setting forth the notation used therein. The English language is peculiarly lacking in comprehensive treatments of theoretical physics at the graduate level; the nearest approach to the present volume is perhaps the translation of Joos's *Theoretical Physics*. Weizel's book is a bit more advanced than Joos's. It is highly recommended as a text for a year's course in classical theoretical physics. The postwar shortage probably accounts for the quality of paper on which the book is printed. This is considerably below the former Springer standard, though the technical excellence of the printing and the freedom from errors are up to standard.

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Stellar Evolution: An Exploration from the Observatory. Otto Struve. Princeton, N. J.: Princeton Univ. Press, 1950. 266 pp. $4.00.

Gray's Manual of Botany: A Handbook of the Flowering Plants and Ferns of the Central and Northeastern United States and Adjacent Canada. 8th ed. Revised by Merritt Lyndon Fernald. New York: American Book Company, 1950. 1632 pp. $9.50.

Atomic Physics. Wolfgang Finkelnburg. Trans. from rev. German ed. by George E. Brown. New York: McGraw-Hill, 1950. 498 pp. $6.50.

Saints, Sinners and Psychiatry. Camilla M. Anderson. Philadelphia, Pa.: J. B. Lippincott, 1950. 206 pp. $2.95.

Therapeutische Chemie: Arznei- und Desinfektionsmittel zur Bekämpfung von Infektionskrankheiten. Theodor Wagner-Jauregg. Bern, Switzerland: Hans Huber; New York: Grune & Stratton, 1949. 272 pp. Sw. fr. 35.50.

Structure et Activité Pharmacodynamique des Médicaments du Système Nerveux Végétatif: Adrénaline, Acétylcholine, Histamine et Leurs Antagonistes. D. Bovet and F. Bovet-Nitti. Basel, Switzerland: S. Karger Ltd., 1948. 849 pp. Sw. fr. 85.–.

Physical Properties of Glass. J. E. Stanworth. New York: Oxford Univ. Press, 1950. 224 pp.

Weltschöpfung in Mythos und Religion, Philosophie und Naturwissenschaft. Bernhard Bavink. Basel, Switzerland: Ernst Reinhardt, 1950. 126 pp. Sw. fr. 5.50.

The Production of Antibodies. 2nd ed. F. M. Burnet and Frank Fenner. London-New York: Macmillan, 1949. 142 pp. $3.00.

The Pathogenesis and Pathology of Viral Diseases: Symposium Held at the New York Academy of Medicine, December 14 and 15, 1948. John G. Kidd, Ed. New York: Columbia Univ. Press, 1950. 235 pp. $5.00.

Physics in Industry: The Acceleration of Particles to High Energies. London S.W.1, England: Institute of Physics, 1950. 58 pp. $1.60 postpaid.

Process and Unreality: A Criticism of Method in Whitehead's Philosophy. Harry Kohlsaat Wells. New York: King's Crown Press, Columbia University, 1950. 211 pp. $3.00.

An Introduction to Probability Theory and Its Applications, Vol. I. William Feller. New York: John Wiley; London: Chapman & Hall, 1950. 419 pp. $6.00.

Exercises in General Chemistry. Harold G. Dietrich and Erwin B. Kelsey. New York: Macmillan, 1950. 285 pp. $3.00.

Die Welt der Vektoren: Einführung in Theorie und Anwendung der Vektoren, Tensoren und Operatoren. Franz Ollendorff. Vienna, Austria: Springer-Verlag, 1950. 470 pp. $9.00 paper, $9.60 bound.

A Course in General Chemistry: Semi-Micro Alternate Form. 3rd ed. William C. Bray, Wendell M. Latimer, and Richard E. Powell. New York: Macmillan, 1950. 217 pp. $3.00.