

reference text in this country for a substantial period of time in the future.

This relatively unique position rests not only on the fact that it is a clear and accurate version of quantum mechanics, for other books such as those of Rojansky and Kemble have the same virtues. This book has the additional virtue that it is intended to prepare the reader for an understanding of the frontier problems of quantum mechanics as they are being attacked at the present time by theoretical physicists. That is, the book has what might be termed vector content in the sense that the student not only obtains an appreciation of the problems in which non-relativistic quantum mechanics has triumphed in treating atomic and nuclear problems, but is also guided systematically to the frontier problems of relativistic field theories which play so important a role in current developments of the physics of high energy particles. Perhaps the last introductory account of the subject which attempted to do this is Pauli's *Die allgemeine Prinzipien der Wellenmechanik* which appeared in the *Handbuch der Physik*, vol. 24, in 1933.

The book contains 14 chapters and may be divided into three parts. In Schiff's own words, "The first three chapters constitute an introduction to quantum mechanics, in which the physical concepts are discussed and the Schrödinger wave formalism is established. The next eight chapters comprise the central part of the book. This part presents exact solutions of the wave equation for both energy-level and collision problems, the Heisenberg matrix formalism and transformation theory, approximation methods, radiation theory, and some applications to atomic systems. Since the first eleven chapters correspond to a typical one-year graduate course, it seemed desirable to include a semi-classical treatment of electromagnetic radiation in the central part of the book (Chapter X) even though some of the results are obtained again in Chapter XIV. The last part of the book corresponds to a short course in what is often called advanced quantum mechanics. It consists of relativistic particle theory and an introduction to quantized field theory and quantum electrodynamics."

FREDERICK SEITZ

Plastic deformation. By L. N. Kachanov, N. M. Beliaev, A. A. Ilyushin, W. Mostow, and A. N. Gleyzal. Ed. by H. H. Hausner. New York, Mapleton, 1948. 192 pp. \$8.00.

This book consists of a set of seven independent papers on plasticity. Five of these appeared originally in Russian periodicals and the