Verstandliche Elemente der Wellenmechanik: Photonen, Freie Elektronen, Einelektronige Atome, Teil I. Karl Jellinek. Basel, Switzerland: Wepf & Co., 1950. 304 pp. Sw. fr. 34.

The aim of this book, written by a well-known German physical chemist, is to present wave mechanics in a form understandable to other chemists and also to experimental physicists. To do this the author develops his own interpretation of wave mechanical formalism—an interpretation which stands in direct contradiction with present accepted ideas. Jellinek claims, for example, that a simple understanding of wave mechanics can be achieved by accepting atomic structure of light ether, and preaches that the coordinates and momenta of a moving particle always possess well-defined values, and that the uncertainty principle is only describing the imperfection of our measurements. It is quite possible that some experimentalists, for whom the book is intended, will find it easier to "understand" Professor Jellinek's wave mechanics than the somewhat involved gnosiological form developed by Bohr, Heisenberg, and others. But this will be, in fact, only a very gross misunderstanding!

The technical part of the book, involving mathematical treatment of the harmonic oscillator, rotator, hydrogen atom, and potential barrier (discussion of the helium atom, alkali atoms, and diatomic molecules being reserved for the second volume) is very nicely written, and can be of really great help to students without previous experience in the methods of theoretical physics.

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The Properties of Metallic Materials at Low Temperatures, Vol. 1. Monograph on metallic materials published under the authority of The Royal Aeronautical Society. P. Litherland Teed. New York: Wiley, 1950. $3.50.

This monograph by P. Litherland Teed is a survey and compilation of data pertaining to experiments on properties of metals at low temperature and includes rather extensive references to work that has been done in this field. The book seems directed toward the possible use of such materials in aircraft, but the same principles are applicable in other uses.

Data are included on the effect of low temperatures on mechanical properties (such as tensile and yield strength, endurance limit, elongation, reduction of area, Young's modulus, impact strength, etc.) of aluminum, magnesium, iron, copper, nickel, zinc, tin, lead, and some of their common alloys, as well as on welds, cold-worked and heat-treated metals, and permanent changes in properties caused by short time exposure to low temperature. Also included are some data on electrical resistance at low temperatures of aluminum and copper.

The author critically discusses the material presented and attempts to draw conclusions, some of which are based on admittedly scanty data, regarding the effect of low temperatures on mechanical properties of metals.

The primary contribution of this book lies in the compilation of available data and references on low temperature behavior of metals and alloys. From a somewhat negative viewpoint, it reemphasizes the dearth of such knowledge available to the designer and the need for additional research.

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An Atlas of Human Anatomy. Barry J. Anson. Philadelphia: Saunders, 1950. 518 pp. $11.50.

This excellently illustrated atlas of regional anatomy was prepared by one of the few anatomists in the United States who has done extensive research, in association with clinicians and a group of competent medical artists, on the structure and variations in the human body. The new and informative illustrations made from dissections or osteological specimens depict the observations and anatomical concepts of Dr. Anson and his colleagues.

The inclusion of oblique views or longitudinal sections from certain areas; tabulations of pertinent information such as the cranial fossae with their foramina and the structures traversing each foramen; illustrations for the development of the mesenteries and peritoneal folds; the action of certain muscles or muscle groups, such as the pronators and supinators; and examples of the variations observed in many structures, enhance the usefulness of this book for medical students and particularly for clinicians.

Legends for certain illustrations may appear too lengthy and detailed. They are necessary, however, to clarify the views shown, emphasize the structures illustrated, and inform the reader of structures which have been removed or displaced from their normal relations. In consideration of the present tendency to use the Anglicized forms of anatomical terms, it may be confusing to the reader to find most of the terms in the strict Latinized (B.N.A.) form although some illustrations are labeled entirely with Anglicized terms. A few minor errors are present, but they are far outweighed by the excellent qualities of this atlas.

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