

Modern University Physics. By James A. Richards, Francis Weston Sears, M. Russell Wehr, Mark W. Zemansky. 1006 pp. Addison-Wesley Publishing Co., Inc., Reading, Mass., 1960. \$10.75. *Reviewed by Jacques Romain, University of Elisabethville, Katanga.*

IT is unnecessary to describe for American readers *University Physics* by Sears and Zemansky, for years a well-known and widely used textbook. *Physics of the Atom* by Wehr and Richards is a more recent book, but its general features and qualities are comparable to those of the former book, and I am fairly certain that few physics teachers ignore it. The present book is made up of the main material of those two. It is not a mere collection of chapters, but a true fusion since some parts were common to both books. A few topics were deleted which were thought to be less important in a first course and which would have added excessive bulk to the volume. The result is a highly recommendable textbook which covers in a simple introductory way both classical and so-called modern physics: general dynamics, elasticity (Poisson's ratio is omitted), wave and vibratory motion, hydrostatics, heat and thermodynamics, kinetic theory of matter, electricity and magnetism, optics, atomic and nuclear physics, relativity, wave mechanics, cosmic rays, and fundamental particles. Perhaps it may be regretted that Wehr and Richards' short elementary chapter on the theory of solids was not retained.

The whole book is written in a lively and stimulating fashion. It is sprinkled with striking and picturesque illustrations, taken from modern science and life, and enlightening comparisons. The principles of the experiments that led to the present points of view are described. Although not of a highly technical level, the exposition is accurate and detailed enough. Many numerical examples help the reader get a good idea of the real quantities, and every chapter is concluded with many practical problems, of both numerical and general character (with answers to odd-numbered ones). According to the modern trend, the authors chose to use the mks system throughout, and to introduce the English system and sundry units where they are in current use.

The book is very carefully made. Pictures and diagrams are numerous and excellent indeed. Mathematical and physical appendices (logarithmic and trigonometric tables, a partial list of isotopes, atomic constants) make the book self-contained. But where was the literature index left? So far as I can remember, there was a good one in Wehr and Richards' *Physics of the Atom*.

Non-relativistic Quantum Mechanics. An Introduction. By R. M. Sillitto. 230 pp. Quadrangle Books, Inc., Chicago, Ill., 1960. \$7.50. *Reviewed by Hans Frauenfelder, University of Illinois.*

THE preface describes the aim of this book: "It is intended for those honors students in physics who are familiar enough with the development of modern physics to accept, or perhaps welcome, a formal rather

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