

These subjects have only one thing in common: They are all of interest to the development physicist or engineer in the electronics industry. It appears to this reviewer that it will be increasingly difficult to maintain depth in such a series which serves a rapidly diverging industry. For example, the semiconductor article in the present volume is much broader (and therefore necessarily less deep) than the reviews in preceding volumes by Brooks and by Burstein and Egli. The tendency may be to drop from the level of the *Journal of Applied Physics* to, say, that of *Electronics* magazine, with consequent reduction in interest by physicists.

Concise Dictionary of Science. By Frank Gaynor. 546 pp. Philosophical Library, Inc., New York, 1959. \$10.00. Reviewed by E. R. Rae, *AERE, Harwell, England*.

IN these days of extreme specialization in science, the production of up-to-date dictionaries and encyclopedias at many different levels of complexity is a necessity if even popular scientific literature is to be comprehensible to more than the privileged few. The current boom in the publication of such works is therefore very welcome.

The present book, while claiming on its flyleaf to cover all sciences, in fact appears basically to cover mathematics, physics, and chemistry up to graduate level, with a leavening of other related subjects. The biological sciences are not, however, included. The definitions given are accurate, but since they are mainly obtained from other rather older works, they sometimes fail to refer to modern or more general usages. For example "Energy Levels" occurs in atoms, with no mention of nuclei, molecules, or other quantum mechanical systems. Such restriction of the definitions is doubtless aggravated by the relative brevity of the text.

This dictionary could be of considerable use to the student or layman, and would doubtless have a large sale if its price were \$3 rather than \$10.

Thermodynamics and Statistical Thermodynamics. By John Geldart Aston and James John Fritz. 556 pp. John Wiley & Sons, Inc., New York, 1959. \$8.25. Reviewed by R. E. Street, *University of Washington*.

SINCE this book is intended as an intermediate textbook for chemistry students, it will not serve the same purpose for all students, in particular students of physics. Yet the instructor who tends to include some chemical applications in his thermodynamics course may find this text quite suitable, since it does not overemphasize chemistry but includes most of the physical applications as well. Because of the great number of topics covered the result is that many of them are but briefly considered. Still the book is a good introduction to the more advanced treatises which is clearly its purpose.

This is a practical book in the sense that it puts

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