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others are easier to read, but of course none are intended for the layman.

The topics covered are as follows: nuclear photodisintegration (D. H. Wilkinson), a highly technical paper not meant to be self-contained; the pion-nucleon interaction and dispersion relations (G. F. Chew) and strange particles (L. Okun'), more self-contained; the experimental clarification of the laws of beta radioactivity (E. J. Konopinski); high-energy nuclear reactions (J. M. Miller and J. Hudis), experimental and descriptive rather than theoretical; technetium and astatine chemistry (E. Anders); solvent extraction in radiochemical separations (H. Freiser and G. H. Morrison); nuclear fission (I. Halpern), fairly detailed and easy to understand; electronics associated with nuclear research (H. W. Kendall); high-temperature plasma research and controlled fusion (R. F. Post), a general survey from both theoretical and experimental standpoints, with the emphasis on the importance of basic research; fast reactors (L. J. Koch and H. C. Paxton); economics of nuclear power (J. A. Lane); vertebrate radiobiology (R. Rugh), a survey of experimental results in embryology; biochemical effects of ionizing radiation (M. G. Ord and L. A. Stocken); and cellular radiobiology (K. C. Atwood).

The indexes of authors and of subjects are very carefully prepared, as is indeed the whole book. A nice volume, not expensive at all in comparison with the value of its contents.

The Search for Order: The Development of the Major Ideas in the Physical Sciences from the Earliest Times to the Present. By Cecil J. Schneer. 398 pp. Harper & Bros., New York, 1960. $6.00. *Reviewed by I. Fankuchen, Polytechnic Institute of Brooklyn.*

HENRY Margenau, professor of physics and natural philosophy at Yale University, has written a four-page foreword to this volume. The things he liked about the book are those which I like. I suppose it is not the province of a person writing a foreword to say what he doesn't like!

Dr. Schneer has given us a most interesting book, one in which he develops the major concepts of physical science and mathematics in a very personal and often stimulating way. Biology and the life sciences, important as they are, are mostly avoided; when touched upon, we are often told things which simply are not so: e.g., that "The individual protein molecules do not seem very far from the filterable viruses which are indubitably life" (p. 153).

The dust jacket informed the reviewer that the author is a fellow crystallographer, hence a sympathetic attitude was automatically established. But a reading of the book suggested that Dr. Schneer must also be, for example, a member of the antivivisectionist society: "The great leap from electrostatics to electricity in the form of a current of charge was an advance due to the humble frog. That Job of the animal kingdom, as he was styled by Claude Bernard, has been subjected to

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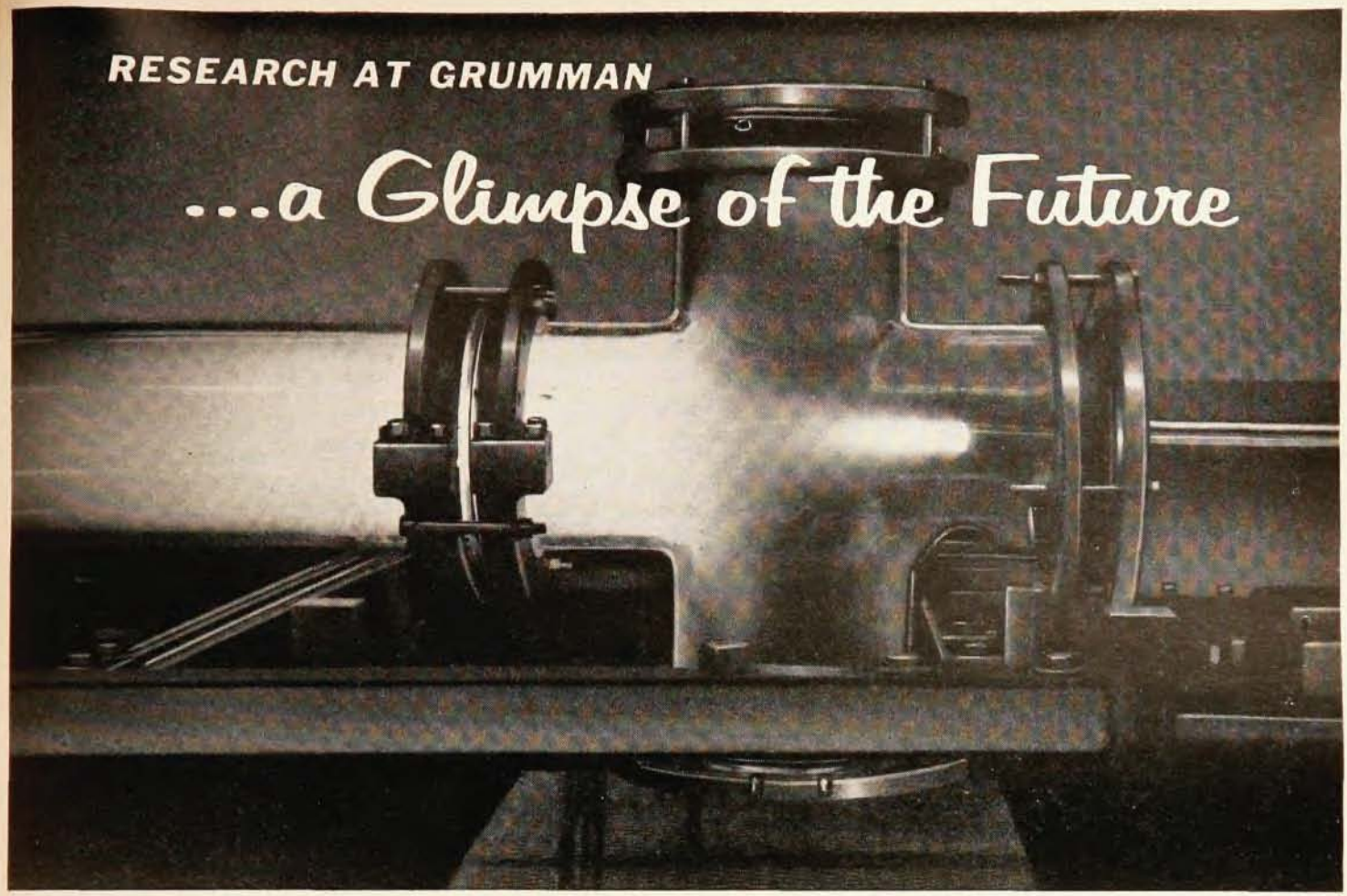

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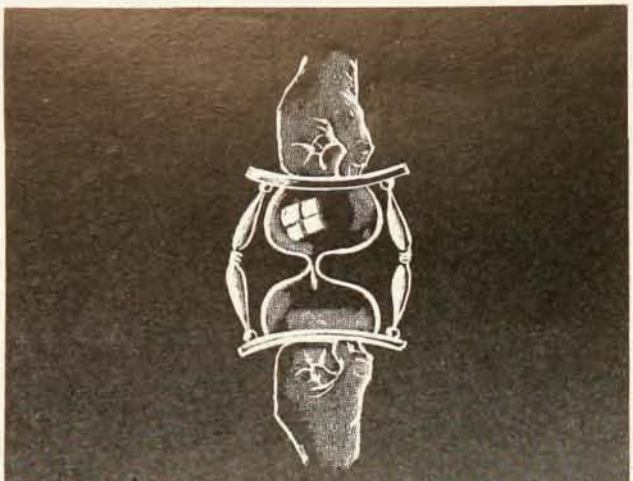

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continuous persecution since at least the sixteenth century, when Harvey used it to demonstrate the circulation of blood" (p. 226), and crazy about music: ". . . within the geometry of Lobachevski, the web of geodesics must swell and shrink to lawful music" (p. 374). It is good that from time to time the author makes us keenly aware that there is more to the world in which we live than science; ethics, morality, and even religion must be considered and thought about.

The pages abound with scientific statements which are inexact, which are wrong, and which are meaningless. Often somewhat gaudy language obscures the intended meaning; and yet Dr. Schneer has given us a stimulating, over-all look at physical science. The book is worth reading even if it infuriates the reader. T'is a pity; a little judicious pruning and careful revision could have made it so very much better.

Tables of Physical and Chemical Constants, and Some Mathematical Functions (12th Revised Ed.). Originally compiled by G. W. C. Kaye and T. H. Laby. Revision eds., N. Feather, H. Barrell, E. A. Coulson, J. M. C. Scott. 231 pp. Longmans, Green & Co., New York, 1959. $5.50. *Reviewed by E. J. Öpik, University of Maryland.*

THIS compilation may be called the British counterpart of the Smithsonian Physical Tables. The need for concise data of this kind cannot be enough emphasized. Despite the small size, these British tables contain a wealth of information which to a great extent is not covered by other similar sources, so that, instead of duplicating, the different publications supplement one another.

Thus, in a sample of 25 items of special interest to the reviewer chosen from the British tables, it was found that 44 percent are not covered, 32 percent are equally covered, and 24 percent are more completely covered by the Smithsonian tables. Among those not covered there are such items as electron recombination coefficients, total electron collision cross sections, and ionization cross sections.

The current 12th edition is up to date and can be warmly recommended to physicists, astrophysicists, geophysicists, and other scientists who are in need of a handy source of numerical information.

Physicochemical Measurements at High Temperatures. Edited by J. O'M. Bockris, J. L. White, J. D. Mackenzie. 394 pp. (Butterworths, England) Academic Press Inc., New York, 1959. $13.50. *Reviewed by R. A. Pasternak, Stanford Research Institute.*

ADVANCEMENT of modern technology, particularly in the areas of nuclear energy and of jet propulsion, has been intimately tied to the development of high-temperature materials and processes. Many of the techniques for the investigations of high-temperature systems are of relatively recent date, and thus not yet to be found in monographs or textbooks. The editors