mountains; and an important step is as far as possible to attach to each individual its own isostatic compensation, instead of the collective compensation that suffices in scale-free physics. . . . The wave-function is a self-contained unit which can be dumped anywhere on the uranoid without upsetting the equilibrium of the uranoid particles."

Eddington's last scientific testament has all the marks of the production of a man of genius, not excluding tiresomeness; whether or no it will survive as a great scientific work, it is certainly a notable work of art.

E. A. MILNE

TECHNICAL AND SCIENTIFIC ASPECTS OF ATOMIC ENERGY

Science News, 2

Atomic Energy Number. Edited by Prof. R. E. Peierls and John Enogat. Pp. viii+168+15 plates. (Harmondsworth and New York: Penguin Books, Ltd., 1947.) 1s. net.

MUCH has appeared in print and been heard in recent weeks about atomic energy; but an authoritative survey of the technical and scientific development of the past few years in the field of nuclear physics is still lacking. The second volume of Penguin Science News is, therefore, very welcome, because it is a collection of seven articles, written by prominent nuclear scientific workers, covering some of the more important technical and scientific aspects of the subject of atomic energy. The question of international control, and the political and social consequences are not dealt with specifically. The authors, some as members of the British and others of the American staff, were at one time engaged together on the atomic bomb project at Los Alamos, and thus write with first-hand knowledge of the problems which were tackled and solved in the production of atomic energy for military purposes. Each of the seven articles is self-contained and may be studied separately.

The subject-matter is presented in an interesting fashion, and can be readily understood by the non-specialist but scientific reader. The first article, by Prof. R. E. Peierls, is a general survey of the whole field and forms a key to the rest. H. A. Bethe follows with a description of the structure of atoms and nuclei, and H. L. Anderson shows how atomic power was tamed and plutonium produced. "The Physics of the Bomb", by P. Morrison, gives not only a clear description of the chain reactor which constitutes the atomic bomb, but also a very vivid picture of what happens during and immediately after the explosion. Some of the peace-time applications of the liberation of nuclear energy using radioactive tracers are dealt with by M. Argo and E. Teller, and in the final article O. R. Frisch reviews, with numerous diagrams, some of the techniques used in nuclear research.

Considering the high price of present-day scientific text-books, it is remarkable that this collection of articles can be produced for so small a cost as one shilling. It is true that the diagrams, though clear, are too small and that the plates leave much to be desired both from the point of view of subject and reproduction; but these are very minor defects in a book which, undoubtedly, will be widely read and which will be in great demand—probably in greater demand than the limited supply will be able to satisfy.

S. WEINTROUB

D.D.T. FROM AN AMERICAN POINT OF VIEW

D.D.T. and the Insect Problem

By James C. Leary, Dr. William I. Fishbein and Lawrence C. Salter. Pp. vii+176. (New York and London: McGraw-Hill Book Co., Inc., 1946.) 12s. 6d.

THE insecticidal property of D.D.T. was undoubtedly a great discovery, and its application during the War, at a time when the supplies of other insecticides were inadequate after the capture by the Japanese of the derris-producing areas and the cutting off of supplies of pyrethrum, was an important contribution to Allied victory. D.D.T. will have many uses in peace-time, and it is therefore important that its properties should be widely known so that it may be used to the best advantage. In Britain the book "D.D.T.: the Synthetic Insecticide" (reviewed in *Nature*, 158, 359; 1946), by West and Campbell, was generally welcomed; the authors have been themselves engaged in insecticide research, and have made important contributions to knowledge concerning D.D.T. Now a book on apparently similar lines comes from the United States. Its authors are not research workers; one is a medically qualified epidemiologist, but from internal evidence one judges that the book was mainly written by his colleagues, who are both journalists. Although the book looks at first sight as if it were a scientific compilation, it is in fact popularized journalism with some scientific data thrown in rather uncritically for effect.

D.D.T. was first used in Switzerland, and many of the 'classical' experiments were carried out in that country. Later, during the War, a great deal of experimental work was done both in the United States and in Britain. Unfortunately, the British authorities were rather more reluctant than the American to allow publication of the results of this work, so the literature contains a preponderance of American papers. Nevertheless, many important British contributions have been published. In West and Campbell's book the bibliography is reasonably complete up to 1945, when it went to press; there are many Swiss and British references, but the majority listed are American. Leary, Fishbein and Salter also publish a bibliography. It contains no references to Swiss work (they do acknowledge in the text that a little preliminary research was done in Switzerland), and the only British contributions appear to be three short notes in the *British Medical Journal* describing cases of individuals poisoned by excessive exposure or by drinking D.D.T. solutions. Every other reference is American.

Notwithstanding its trans-Atlantic bias, "D.D.T. and the Insect Problem" might still be a useful book if it were an accurate and readable summary of current knowledge. It is not. It contains many sweeping and controversial statements; thus, for example, infectious encephalitis (confusingly called "Sleeping Sickness") is definitely stated to be carried by a culicine mosquito. Its style may be gathered from a typical quotation, from the section on typhus control: "Neapolitan brides finally got so they laughed when D.D.T. replaced rice at weddings". So much first-class research has been done in the United States on D.D.T., and there are so many good 'popularizers' in that country, that it is a pity that a better book has not been produced to fill what must be a widely felt need.

KENNETH MELLANBY