

few geneticists who have been convinced of the importance of extrachromosomal inheritance and have kept the subject alive through its years of neglect.

J. L. JINKS.

THE SCIENCE OF IONIZING RADIATION. Edited by L. E. Etter. Charles C. Thomas, Springfield, Illinois, U.S.A. Pp. xv+788. \$26.50.

This in the words of its editor "is a volume addressed to the general scientific public" and covers topics ranging from radiation physics and cancer therapy to the use of radiography in forensic medicine, in philately and in the examination of paintings. The book is indeed a mixture and an expensive one, the only feature common to its 29 chapters is the fact that they all deal with some aspect of ionising radiations.

The chapters are segregated into fourteen sections, the three on Radiobiology, Anthropological applications and Applications in agriculture being the only ones containing anything of direct interest to geneticists. In the Radiobiology section there are three chapters: General effects on mammals (A. Edelmann), Effects of irradiation in cell culture (J. E. Robinson) and Genetic effects of ionising radiations (J. F. Crow and S. Abrahamson). These are well written accounts that will be mainly of use to the advanced student or to biologists who are not directly involved in these fields of research. The article by Crow and Abrahamson gives a very balanced picture of the present facts and theories pertaining to radiation genetics, and Robinson's contribution can be recommended to geneticists who are unfamiliar with the rapid developments that have been made in radiobiological studies on mammalian cell cultures derived from single cells.

The section on Anthropological applications includes an account by P. T. Baker of the use of radiography in measuring variations in skeletal structure, etc., in various ethnic groups, and the chapter by T. S. Osborne, on the Use of radiations in agriculture, describes the responses of various farm animals and plants to radiation exposure and briefly discusses mutation induction and insect eradication through the use of radiation techniques.

All the articles are general reviews aimed at a fairly low level and offer little that is new. To the radiation biologist, by far the most useful chapters are the excellent accounts of radiation physics by W. J. Meredith and W. Sinclair. By the same token the biological articles may be equally acceptable to the physicist. However, the astronomical price of the book, due no doubt to the vast array of photographs—including those of the relevant authors on the title page of each chapter—is certainly not merited by the scientific quality of its contents. The book is far beyond the reach of the student's pocket and really cannot be recommended as a reference volume for the library.

H. J. EVANS.

GENETICS AND THE EPIDEMIOLOGY OF CHRONIC DISEASES. Edited by James V. Neel, Margery W. Shaw and William J. Schull. U.S. Department of Health, Education and Welfare, Public Health Service Publication No. 1163, February 1965. Price \$1.50.

Though genetics is increasingly of interest to many medical men it is a complicated subject and many of them are not trained in its methodology. It is therefore timely that there has appeared this book which gives advice