

Animal Breeding

By Dr. A. L. Hagedoorn. (Agricultural and Horticultural Series.) Fourth edition. Pp. xx+364+16 plates. (London: Crosby Lockwood and Son, Ltd., 1950.) 15s. net.

SINCE the breeding and selection of animals is carried out by the farmer himself and not by a scientific specialist as in plant breeding, this book fills a pressing need, for it sets out the principles of genetics in a way that the farmer can understand. That there is a need for this is shown by the fact that it has been reprinted five times and is now in the fourth edition. The present edition contains a new chapter on Australian sheep and cattle, detailing observations made on a recent visit there, and an appendix by G. Sykes giving a detailed account of his successful adoption of Hagedoorn's theories of poultry breeding by progeny testing. This progeny testing includes testing for mortality as well as for egg production, mortality being one of the weak points of the British poultry industry before the Second World War, and one which is in danger of returning with the expansion in the poultry industry.

The success of this book is probably due to the fact that most of the chapters are based on problems which the livestock breeder is faced with, and the genetics are introduced as a solution of these problems, rather than, as in many other books, providing an exposition of genetic theories followed by a few examples of their practical application. One chapter, however, on dominance and the nature of the gene, is an exception to this rule, and the author supports his theories on this with examples from his own experiments on autosexing Barnevelder fowls and other facts.

The professional geneticist will find in the book some new aspects of his subject, for in attempting the solution of many practical problems and facts it becomes evident that formal genetics does not yet supply a complete answer. Perhaps one of the most important of these is the question of the adaptation of the animal to its environment, which is discussed in the chapters on domestication, adaptation, and improved breeds and local breeds. JOHN HAMMOND

A Dictionary of Assyrian Botany

By the late Dr. R. Campbell Thompson. (Published for the British Academy.) Pp. xv+405. (London: Oxford University Press, 1949.) 50s. net.

DESPITE the limitations dictated by its size and the circumstances in which it has been published, this book will be welcomed by philologists, botanists and others as a valuable work of reference, for in this age of increasing specialization it is at the cross-roads of the arts and sciences where knowledge is usually most incomplete.

From the botanical aspect it is unfortunate that the nomenclature does not always conform with modern practice, but as this work is published posthumously it is understandable that some errors are bound to occur. The editor, who is keeper of the Egyptian and Assyrian Department of the British Museum, explains that it was impossible to re-verify the large number of references consulted by the author, and his apology may be taken to include the vexed question of botanical synonymy.

The general contents are classified under arbitrary headings, with chapters or sections on such subjects as grasses, rushes and weeds, alkalis and soapworts, vegetables, vetches and cereals, flax, poisonous plants, dye plants, thorny plants, the 'hot' plants, narcotics, gums and resins, and miscellaneous uncertain plants.

As is to be expected in the botany of an old civilization, most of the plants mentioned are of some economic value; but although the majority are species of obvious utility as food-plants, materia medica, etc., the field covered is wide and the wealth of varied information presented justifies the comprehensive title of the book. Historical references predominate, but modern usage is not neglected, and some personal experiences of the author are included. The philological scope of the work may best be indicated by an enumeration of its indexes. Of these, the most important are Sumerian, Akkadian, Arabic, Latin and Greek, Aramaic and Syriac and Hebrew; with briefer references to Persian, Phoenician, Ras Shamra, Sanskrit, 'Indian', Egyptian, Hittite and other dialects. S. G. HARRISON

Profile of Science

By Ritchie Calder. Pp. 326. (London: George Allen and Unwin, Ltd., 1951.) 16s. net.

SETTING out unashamedly to interest those who would not touch a 'scientific' book, Ritchie Calder must be congratulated on the adventurous nature of his approach. He is aware that most people are interested in the biographical details of famous men and uses this as the way to introduce the four main subjects of the atom, radar, penicillin and vitamins. Each topic is complete in itself, and is portrayed in relation to its general scientific background; the story of penicillin, for example, is cunningly interspersed with accounts of the invention of the microscope, the discovery of germs and chemical therapeutics as well as up-to-date information about more recent investigations with antibiotics like streptomycin, chloromycetin and aureomycin. In his efforts to maintain the attention of even the most casual reader, Calder uses imagery which is nearly always successful in illuminating and focusing the point at issue. Perhaps the only criticism that can be made of his excellent impressionistic book is that occasionally the popular style becomes a little too 'hail-fellow-well-met' for those with more retiring natures.

Stand and Stare

By Walter J. C. Murray and L. Hugh Newman. Pp. 104 (31 plates). (London: Staples Press, Ltd., 1950.) 7s. 6d. net.

THIS collection of essays is a pleasant book on a natural history topic which the authors, W. J. C. Murray and L. H. Newman, have aptly entitled "Stand and Stare", a phrase from W. H. Davies's poem on "Leisure", beginning:

"What is this life if, full of care,
We have no time to stand and stare?"

The authors tell most charmingly of many things at which it is well worth while to stand and stare, from tracks in the snow and on through fourteen chapters that deal with a variety of topics, including one on the British orchids. They point out that British orchids, if comparatively plain plants by the standard of many fantastically beautiful foreign species, are nevertheless of great interest, from their remarkable contrivances for effecting fertilization to their need of a mycelium in the soil before they can flourish.

Spiders, grasshoppers, butterflies, the mole, various fungi, snails and the flowers of trees are among the subjects discussed, all in a way likely to interest and help the novice. This book will solve the gift problem for many a parent or other relative who may be in difficulty over the question what to give the young person of open-air tastes. FRANCES PITT