

Basic Electricity

(A Course of Training Developed for the United States Navy by Van Valkenburgh, Nooger and Neville, Inc. Adapted to British and Commonwealth Usage by a Special Electronics Training Investigation Team of the Royal Electrical and Mechanical Engineers.) Part 1: Pp. vi+127. Part 2: Pp. vi+121. Part 3: Pp. vi+122. Part 4: Pp. vi+104. Part 5: Pp. vi+117. (New York: The Brolet Press; London: Technical Press, Ltd., 1959.) 12s. 6d. net per part; 55s. net the set.

THIS five-part course, aimed at training technicians rather than electrical engineers, is distinguished by the simple language of its text and its concentration on essentials. It is illustrated to an extent that makes it (or at least the first two parts of it) qualify as a visual aid as well as a text-book. The cartoon-like artistry is a little flord—the sort of thing one might associate with “Jane” but not with “Fighting Ships”; and the going seems slow, by ordinary teaching standards, in the early stages. It soon becomes evident what the authors are up to—using the same technique as the creators of the Li'l Abners and the purveyors of branded goods, to set up an image and attract a loyalty to it; the image being that of the electron. I have no doubt that the early parts would be highly successful in bringing people who would not normally gain a great deal from the printed word to a really sound understanding of the fundamental principles, and simple circuits and meters. The last three parts use the artist in a much more quantitative kind of way. The usual work on alternating current, a.c. circuits, and electrical machinery is done with the minimum of algebra; but every important result is explained and illustrated with the help of vector diagrams and graphs. These parts, in fact, are a very well-conceived text-book of the orthodox type, and contain some new ideas for expounding the more difficult points, which are never shirked. Instructions for experiments are given, with a list of apparatus needed to work through them. The really exacting part of instruction at this level is in making the initial contact with the pupil. The originality and skill that have been lavished on the early stages of the course should ensure for it a very high contact potential. G. R. NOAKES

The Strategy of Chemotherapy

Eighth Symposium of the Society for General Microbiology, held at the Royal Institution, London, April, 1958. Edited by S. T. Cowan and E. Rowatt. Pp. ix+360. (Cambridge: At the University Press, 1958. Published for the Society for General Microbiology.) 35s. net.

THIS symposium shows what a complex field of research has developed from Ehrlich's pioneer work on the use of specific substances to attack micro-organisms in the tissues without damage to the host. The organizer invited contributors to suggest fresh methods of attack and the result was a series of papers of extreme diversity in approach, techniques and objectives. They were given by the microbiologist, the pharmacologist, the biochemist and physical chemist, and include such fundamental conceptions as membrane penetration, bacterial cell-wall synthesis and energy-supplying reactions, wherein the research worker is endeavouring to discover some subtle difference in the components of host and parasite which may be exploited to the detriment of the latter. At the other end of the scale

are the frankly empirical mass methods used so successfully in the production of the antibiotics and other synthetic drugs, but without any fundamental explanation. These random methods still offer probably the greatest chance for further production of new compounds and therefore have their place in the field of chemotherapy, but the symposium does emphasize the necessity for the combined operations of each type of research worker if chemotherapy is to have a logical basis of development and not be, as one worker defined it, dependent upon intelligent guesswork. H. BERRY

The Native Pinewoods of Scotland

By Prof. H. M. Steven and A. Carlisle. Pp. xvi+368+20 plates. (Edinburgh and London: Oliver and Boyd, Ltd., 1959.) 63s. net.

THIS beautifully produced book will be a welcome occupant of the bookshelves of many students of Scottish history and natural history. The subject-matter is both broader and narrower than the title might suggest—broader in so far as the authors discuss much relating to the general history of Scottish forests and to the relationships of pinewoods to woodland of other species, narrower in so far as some features of the pinewoods receive particularly detailed treatment.

The authors trace the history of Scottish woodlands from the Pleistocene period onward through historic times, collating and summarizing an immense amount of evidence from geological, palynological and archaeological sources which has never before been brought together. They pass on via a very general ecological account of the pinewoods to a systematic description of all the known surviving examples of woods which are with reasonable certainty composed of naturally regenerated indigenous pine. Carefully prepared maps accompany the descriptions, and show the exact distribution of pine and of other species of trees in the neighbourhood of the pinewoods. This portion of the book is noteworthy for copious historical information which has been gathered together from estate records, early maps, accounts by travellers, etc. An account of Dr. Carlisle's study of the morphological variation of pine in Scotland concludes the book.

A fine series of photographs illustrate the book. I have noticed only one trivial misprint. The book should form a valuable foundation for further ecological work in our western outposts of the European boreal conifer forest, which have so long attracted British naturalists. E. W. JONES

South African Animal Life

Results of the Lund University Expedition in 1950-1951, Vol. 5. Edited by Bertil Hanström, Per Brinck and Gustaf Rudebeck. Pp. 520. (Stockholm: Almqvist and Wiksell, 1958.) 75 Sw. kr.

VOLUME 5 of this series of publications contains accounts on Porifera, Crustacea, Diplopoda, Diptera, Hemiptera and Coleoptera. Six chapters each on the Hemiptera and Coleoptera make up the bulk of this volume. As in earlier volumes the taxonomic treatment is amplified by zoogeographical accounts, and frequently the general accounts are not restricted to the description of the Lund collections, but bring them into relationship with other material. For an assessment of the scope and general merit of this series the reader is referred to an earlier article in this journal (*Nature*, 180, 56; 1957).