

The third chapter contains practical exercises, beginning with instructions on how to use the instrument. Many of the exercises will allow the operator to gain facility with the technique, and illustrate its potentialities.

In the final section useful information is given on failures that can arise, their remedy, and directions for constructing auxiliary electric circuits. Overall a very useful book.

R. J. MAGEE

Antarctic Bibliography

Vol. 1. Edited by George A. Doumani. Pp. vii+506. (Washington, D.C.: Government Printing Office, 1965.) \$4.25.

INTERNATIONAL scientific co-operation in the Antarctic, now in its tenth year, has achieved outstanding results in every respect save that of its own documentation. *Antarctic Bibliography*, though compiled primarily for the Antarctic community in the United States, is the first full-scale attempt to control this field of literature since Roscoe's 1951 bibliography. This volume, the forerunner of a succession to be published at regular intervals, represents a cumulation of the first 2,000 of a series of Antarctic abstracts on 3 in. by 5 in. library cards compiled by the Cold Regions Bibliography Section of the Library of Congress's Science and Technology Division, sponsored by the Office of Antarctic Programs, National Academy of Science, and at present distributed to a limited clientele.

The bibliography covers all topics relevant to the region south of latitude 60° and the sub-Antarctic islands. The literature in this volume relates mainly to the period 1962-64 and is said to represent the publications of thirty countries in thirteen foreign languages. Entries are arranged under general disciplines by code numbers and are indexed by author, subject, place and grantee.

The standard of citation and abstracting is consistently high. The choice of material is biased over-much in favour of U.S. publications (43.8 per cent of the total), but subsequent library cards reveal that the basis of selection has now been considerably broadened.

It is in the indexing structure that the inherent weaknesses lie. The subject index is of the type that refers the reader to anonymous code numbers; to look up perhaps fifty of these plus cross-references requires great strength of purpose. Indexing of short author-title entries would be well worth the extra time and cost involved. The geographical index lists place-names approved by the U.S. Board on Geographic Names; in deference to the usage of other nations established in the Antarctic, references from names not used would be useful, for example, from *Terre Adélie* to *Adelie Land*.

Further, an indexing policy which specifically avoids all mention of political or military terms is difficult to accept. Thus, "British Antarctic Territory", "Territoires Australes Antarctiques Françaises" and other political sectors actively administered, all with a considerable literature centred on them, have no being here.

If these objections can be met in subsequent volumes, *Antarctic Bibliography* may well become as indispensable to the study of the south polar regions as *Arctic Bibliography* is to the north.

H. G. R. KING

Physiology of the Domestic Fowl

Edited by C. Horton-Smith and E. C. Amoroso. (British Egg Marketing Board Symposium No. 1.) Pp. x+329. (Edinburgh and London: Oliver and Boyd, Ltd., 1966.) 105s. net.

THE thirty-four papers published in this volume were read at a three-day symposium sponsored by the British Egg Marketing Board in December 1964. They are grouped into five sections: reproductive physiology and endocrinology, metabolism and nutrition, calcium metabolism and egg shell formation, environmental physiology, and pharmacology and general physiology. These sections

are of unequal size, the first two making up more than half the volume, and their titles are somewhat arbitrary, for papers on endocrinology come into each of the first three. The articles are also very unequal in scope and content, ranging from short reviews to reports of students' work in progress. That is to say, the papers have been conceived in terms of what must have been a busy discussion meeting rather than with a view to publication in book form. None the less, three of the sequences of papers do provide up-to-date summaries of their research areas: these are sperm physiology, amino-acids in poultry nutrition and the effects of temperature on the metabolism of the fowl. While the remaining papers cover many topics (from the fine structure of the ovarian follicle to germ-free chicks, via hormone changes during the laying cycle and the effects of anti-cholinesterases, to mention only a few), they are likely to be of interest mainly to specialists. The high price of the book presumably anticipates this limited market.

J. H. SANG

Laboratory Techniques in Botany

By M. J. Purvis, D. C. Collier and D. Walls. Second edition. Pp. viii+439. (London: Butterworth and Co. (Publishers) Ltd., 1966.) 57s. 6d.

IT is no surprise to see that a second edition of this book has been produced within two years of the first, for it is the only good and comprehensive book of its kind. Examination of its contents reveals the wide range of expertise which is required of a technician or teacher in botany today. It is clear that the general biological technician may well become extinct in the near future and this, perhaps, might further the work of the biological sciences. There is much useful additional material in this edition including a chapter on enzyme preparation and assay. The examples chosen will not suit everybody and the treatment is likely to be too compressed for technicians working alone. The first chapter on apparatus and techniques in general is also too concise, despite expansion of material. The elimination of some half-tone plates of doubtful value or poor quality, for example, Nos. 36, 68, 69, 76, 109a-c, and their replacement by an expanded text in Chapters 1 and 18 would greatly improve this already good book. Nevertheless, it will continue to be compulsory reading for all botanical technicians.

J. H. BURNETT

The Stomach and Anaemia

By Leslie J. Witts. (Heath Clark Lectures, 1964.) Pp. vi+166+88 plates. (London: The Athlone Press; University of London, 1966.) 25s. net.

IN these lectures Professor Witts discusses the development of our now extensive knowledge of the relations between the anaemias due to deficiency of iron, vitamin B₁₂ and folic acid and the gastric lesions that usually accompany these anaemias. No attempt is made to review the huge literature, but the author uses the work carried out at Oxford by himself and his co-workers to show how results have been obtained and to illustrate the practical effects of these results. The main subjects discussed are: techniques of investigation; the relation of iron-deficiency anaemia and achlorhydria; the interrelation of gastric lesions, auto-immune antibodies to gastric cells and to intrinsic factor, and the development of the pernicious anaemia syndrome; the role of abnormalities of the endocrine glands in producing the pernicious anaemia syndrome; and the causes of the anaemias that follow some years after gastric operations. The lectures were given in 1964; most of their content is by now familiar to physicians and pathologists interested in the problems of anaemia and gastric changes. But to those not so closely involved, these lectures provide an excellent short account of modern views with sufficient quotation of the literature to form a starting point for further investigation.

M. C. G. ISRAËLS