

comparing the radio emission of Cygnus A with that of the Sun (p. 28) and the confusing substitution of latitude for altitude at one point on p. 44 are perhaps proof-reading errors. However, when he finds that the gain of a radio telescope is analogous to the magnification of an optical telescope (p. 17), that the resistance of a network is given by a useless undefined expression of the form  $R_1 + \frac{1}{R}$  (Fig. 11), that a formula for the reactance of a circuit is wrong (p. 94), that azimuth is measured from South through East (Fig. 4) and that Fig. 13 contains a fundamental error that any schoolboy should spot, the reader cannot be blamed for feeling unable to trust any of the book's quantitative results.

In the final chapter "Into Practice" a good opportunity is missed. Although we are wisely advised to start observations on the Sun, a variable radio source that is easy to detect, I feel sorry for the unwary amateur who following Mr. Hyde's advice proceeds to build, at considerable expense, a radio interferometer and then sits down night after night taking readings every few seconds hoping to observe lunar occultations of radio sources or to resolve the discrepancies between the Cambridge and Sydney radio source surveys.

M. I. LARGE

## BREEDING LABORATORY ANIMALS

Notes for Breeders of Common Laboratory Animals

Edited by George Porter and W. Lane-Petter. Pp. viii+208. (London and New York: Academic Press, 1962.) 35s.

THE Laboratory Animals' Centre of the Medical Research Council, Carshalton, England, introduced an accreditation scheme in 1950, throughout Great Britain, for breeders of guinea pigs, mice and rabbits, primarily in order that laboratories might obtain satisfactory animals.

A journal, the *Laboratory Animals' Bulletin*, was issued from 1950 until 1956, and the need for a more ambitious programme had then become apparent. *Notes for Breeders of Common Laboratory Animals* provides that further requirement, and it is a valuable manual for the breeder who wishes to maintain the necessary high standard for the production and maintenance of the animals.

Within eleven chapters, each covering the necessary information about one of the species of animals (guinea pig, mouse, rabbit, hamster, rat) or with maintenance subjects especially (feeding, breeding, hygiene, ectoparasites) or with general matters (animals in research, laboratory standards), there are, altogether, forty articles by a score of different authors, these comprising graduate scientists, technicians and commercial breeders, all competent to write on the subject concerned.

The book is designed to be understood by the intelligent breeder, yet useful to the scientist. The aims as set out in the foreword have been achieved. There is universal agreement that quite elaborate planning is required to provide the necessary type of animal for the laboratory, sound in health, and suitable for the purposes of experimental work. The hindrances and disappointments of the past from failure of the experimental animals, as tools of the laboratory, to live to provide the data required because of ill-health and unsuitability in other ways are well known; in addition, the cost in money and scientific effort wasted when careful planning and elaborate preliminary work have been spoilt has been considerable.

A further important asset from the provision of this book is the indication it gives of the comfortable circumstances in which the animals live and this should alleviate qualms of those who may fear that undue cruelty might be perpetrated in the laboratory work.

Perusal of the book brings out the need for more than the half-a-dozen illustrations to ease the path of the reader on some of the articles. The law relating to experiments on animals in Great Britain is briefly and clearly set out. An article on laboratory animal standards in the United States of America provides a valuable contribution which supplements by comparison some of the matter in the book as a whole. The British Accreditation Scheme for the commercial breeding of these animals is briefly outlined.

## INTERNATIONAL TRANSPORT OF CATS AND DOGS

The Export and Import of Dogs and Cats

A Handbook of Regulations. Prepared by C. E. Woodrow. Pp. viii+107. (London and New York: Pergamon Press, 1962.) 35s.

THE movement of dogs and cats into and out of Britain is a small-scale transfer, but of very great importance, largely because of rabies. Because of its absence from Britain, many people imagine that the danger may be exaggerated. On the contrary, the risks involved are very great indeed. At the end of the Second World War rabies extended rapidly from eastern Europe right up to the North Sea, and the reason was quite interesting. With the rapid political changes in Europe, areas which had been relatively free from the disease experienced rapidly changing conditions. Populations were not permitted to possess firearms, and biting predator animals were able to multiply quickly, foxes being important in this respect. The wildlife animals spread the infection mutually and also infected dogs; dogs were not the chief means of spread, but were important in its dissemination within communities in towns and villages. Similarly, in vast areas in arctic regions biting predators are infected and pass the disease on to dogs; this is the case in both U.S.S.R. and in American territories. Wildlife in parts of the United States, particularly in areas in the south, is seriously infected. In parts of South America the incidence is very high.

This book quotes the figures, given here, of incidence in some foreign countries in 1959:

Canada	325	Congo	120
Western Germany	1,929	Italy	294
Northern Rhodesia	57	Poland	91
Spain	36	United States	4,111

To the individual veterinary surgeon the provision of occasional certification may be quite troublesome, along with the other requirements for the transport of the animals. The collection of the necessary information in one small book will be a great boon to many engaged in breeding and other activities.

Mr. C. E. Woodrow, on behalf of the British Small Animals Veterinary Association, has compiled a small book which is certain to receive a great welcome.

Six chapters deal respectively with regulations of Commonwealth and foreign countries; requirements and facilities of shipping and airline companies; effect of vaccination on leptospirosis antibodies; United States State entry requirements; clubs abroad which have reciprocal agreements concerning Kennel Club Export Pedigrees; and British quarantine regulations.

The book will be useful to British consulates and to other organizations which deal with traffic in animals. As an example of information given there are the details concerning more than a hundred countries, this chapter occupying most of the book.

There are separate lists for dogs and cats of officially approved quarantine kennels in Britain; there are more than forty for dogs in 22 countries. W. A. POOL