## Primates

Comparative Anatomy and Taxonomy. 2: Haplorhini: Tarsioidea. A Monograph by W. C. Osman Hill. (Edinburgh University Publications—Science and Mathematics, No. 3.) Pp. xx+347+14 plates. (Edinburgh: At the University Press, 1955. Agents: Thomas Nelson and Sons, Ltd.) 63*s*.

DR. W. C. OSMAN HILL has lost little time in bringing out the second part of his monumental review of the Primates, of which the first, on the Strepsirhini, was published in 1953 (see *Nature*, 172, 880; 1953). The present volume deals with the Tarsioidea, which Osman Hill, following Pocock (but contrary to Gaylord Simpson), accepts as a sub-order of the Haplorhini. This division of the Primates also includes the sub-order Pithecoidea, comprising the monkeys, apes and man. Osman Hill appreciates that the Tarsioidea differ considerably in many parts of their anatomy from the Pithecoidea, but justifies his acceptance of the earlier classification by appealing to the difficulty of classifying *Tarsius* with the lemurs.

The volume is essentially a monograph on *Tarsius spectrum*, but begins with a general review of the literature on the systematic anatomy of the Haplorhini, which includes some observations on reproductive physiology and behaviour. The middle section of the book, some hundred and thirty pages long, deals specifically with the anatomy of *Tarsius spectrum*. This part of the work incorporates a number of original observations. The final sixty pages or so summarize what has been published about the palæontology of the sub-order. The book is well illustrated.

In a review dealing with a field as wide as that which Dr. Osman Hill is trying to cover, it is inevitable that some literature should be overlooked and that reference to certain authoritative views should be lacking; such omissions are especially evident in the section dealing with the general biology of the Haplorhini. In view of the limited amount of our knowledge, it is also not surprising that the section dealing with the embryology, psychology and reproductive physiology of *Tarsius spectrum* occupies only fifteen pages as compared with the hundred or so devoted to its anatomy. Disproportions of this kind are a challenge to future workers. Dr. Osman Hill's work is sufficiently encyclopædic to serve, like the volume which preceded it, as a reference book and summary for all future students who are likely to concern themselves with the phylogenetically important group of Primates which *Tarsius* represents.

S. Zuckerman

## A Textbook of Radar

Edited by Dr. E. G. Bowen. (A Collective Work by the Staff of The Radiophysics Laboratory, C.S.I.R.O., Australia.) Second edition. Pp. xiii+617+41 plates. (Cambridge: At the University Press, 1954.) 45*s*. net.

THIS second edition of a collection of articles on various aspects of radar by the staff of the Radiophysics Laboratory of the Commonwealth Scientific and Industrial Research Organization, Australia, is now published by the Cambridge University Press, under the editorship of Dr. E. G. Bowen. The book deals with the fundamental principles of radar, and its application to war, to navigation and to various problems of physical science. In the first two of these, the present edition does not differ greatly from the first, though the section on military applications has been curtailed. The section on application of radar to physical science has been expanded and now deals with such topics as ionospheric research, moon echoes, meteor trails, meteorology and radio astronomy. This is a welcome addition which helps to bring the subject up to date as regards non-military applications.

The book succeeds in compressing into a single volume a large amount of material, but is still quite readable by the beginner. As editor, Dr. E. G. Bowen has brought a certain amount of unity into what might have been just a collection of papers. Clearly, it cannot replace the specialist volumes on war-time radar research issued by the Radiation Laboratory in the United States or the Modern Radio Techniques Series published by the Cambridge University Press, but will serve as an excellent introduction to these. The practice of the first edition of quoting unpublished reports has fortunately been discontinued to a large extent, and many more references to published work are given. The index of authors is, however, very inadequate for a work of this sort, which should prove valuable for reference as well as for initial instruction.

R. A. Smith

## Frontier to Space

By Eric Burgess. Pp. xvi+174+26 plates. (London: Chapman and Hall, Ltd., 1955.) 21*s*. net.

IN "Frontier to Space" Mr. Eric Burgess gives a survey of recent research on the terrestrial upper atmosphere, paying special attention to the results obtained with the aid of rockets. Most of these results were reported at the conference held in Oxford in the summer of 1953 under the auspices of the Gassiot Committee of the Royal Society. Though they have been published in full in "Rocket Exploration of the Upper Atmosphere" (Pergamon Press, Ltd., London) the summary presented by Mr. Burgess is to be welcomed. Sufficient detailed references to the original literature are given to make the book a useful introduction to the subject. Many interesting and instructive diagrams and plates are included.

The student must not accept all that is said uncritically, for the author sometimes quotes out-of-date views. For example, it is misleading to state (p. 79) that "The growth and decay of the ionized atoms and molecules [in the ionosphere] causes a glow to be emitted which appears as the day and night airglows"; or to state (p. 82) that "It is nowadays thought, therefore, that the ionization of oxygen is the most likely mechanism [for the production of *D*-region ionization]". In spite of occasional defects of this nature, the book can be recommended. The educated scientific public should be able to read most of it without difficulty and should find it stimulating. The production is excellent.

D. R. Bates

## The Theory of Stereoscopic Transmission and its Application to the Motion Picture

By Raymond and Nigel Spottiswoode. Pp. xii+179. (Berkeley and Los Angeles: University of California Press; London: Faber and Faber, Ltd., 1953.) 42*s*. net.

AMONG the most popular items at the 1951 Festival of Britain were the three-dimensional films shown at the Telekinema. A year or two later, 3D had taken the film industry by storm, and we became familiar with 'Polaroid' viewers, eye-strain, some curious space distortions and, from time to