

the title page is one of the worst examples of typography I have seen for many years. Yet where he is writing on subjects which he knows, Dr. Cook is readably informative. His prose style is incisive (unlike the type face) and runs smoothly. But he is an industrial chemist; and to him water is a chemical substance and the raw material, in varying degrees of purity, of many chemical, engineering and industrial processes. It is an unfortunate accident that certain uninteresting creatures live in this otherwise cleanly compound, and so Dr. Cook sets manfully about describing them. In three very brief chapters he dismisses aquatic life, chiefly in disconnected paragraphs of one sentence apiece. He has culled his facts from the text-books and served them out half-digested and very condensed on to the page. Facts treated like this have a regrettable habit of ending no longer as facts, or at best as quite unintelligible. Dr. Cook should stick to departments of science where his digestion works better. In his own field he writes well and clearly. These three chapters aside, "The World of Water" probably fulfils its aim of informing the general reader.

D. B. CARLISLE

LINNAEUS AND THE ANIMAL KINGDOM

Caroli Linnaei Systema Naturae

Tomus 1: Regnum Animale. (A Photographic Facsimile of the First Volume of the Tenth Edition (1758).) Pp. v+824. (London: British Museum (Natural History), 1956.) 42s.

THE publication by the Trustees of the British Museum (Natural History) of a fresh facsimile edition of the tenth edition of the "Systema Naturae" of Linnaeus—the volume in which Linnaeus dealt with the animal kingdom—meets a real need, copies of this essential work having become increasingly difficult to obtain.

In many fields a work which, in its day, was of importance by reason of the novelty of the ideas put forward or of the techniques adopted for the marshalling and presentation of existing knowledge, it outwears in time its practical utility until at last it becomes little more than an interesting landmark in the history of the subject. This, however, cannot happen in the case of works concerned with systematic zoology, owing to the fundamental part played by nomenclature in this field. That this should be so is due to two causes. First, it was in this volume that Linnaeus introduced the binominal system of nomenclature, which distinguishes it from any previous work in the field of descriptive zoology. It is for this reason that the present International Code provides (Article 26) that the publication of this volume in 1758 is to be treated as the starting point of zoological nomenclature. Second, the Code enshrines (Article 25) the principle originally propounded by Linnaeus for the naming of plants but later extended by him to the naming of animals that, other things being equal, the oldest name for any taxon is its valid name. Systematic zoology is thus to a considerable extent a historical subject, the specialist constantly finding it necessary in the course of his strictly zoological work to refer back to the published literature. For these reasons the tenth edition of the "Systema Naturae" is a basic source-book, for the 312 generic and 4,300 specific names

employed by Linnaeus in this volume are the oldest available names for the taxa concerned and, save in a few special cases, are the valid names for those taxa and are accordingly to-day in universal use.

Notwithstanding the importance of the "Systema Naturae" of 1758 from the foregoing point of view, it might be thought that almost the last drop of value had been squeezed out of that famous work by the zoologists of the past two centuries; but this is not so, for the development long after Linnaeus's day of the subspecies concept necessitated a detailed re-examination of the original descriptions of all the older-described polytypic species in order to determine which of the known subspecies should be accepted as the nominate subspecies. Until recently, such studies presented serious difficulties, but these have been greatly eased by the provision by the Fourteenth International Congress of Zoology, Copenhagen, 1953, of rules both for the designation of lectotypes for nominal species established without holotypes and for the designation of 'restricted localities' for such species. These decisions call for a detailed re-study of the tenth edition of the "Systema Naturae", and from this point of view alone the publication of a facsimile edition at a moderate price is particularly opportune. Fundamental in importance as is the tenth edition, the twelfth and thirteenth editions are almost equally essential to the working systematist, and both are now costly and difficult to obtain. The twelfth edition was regarded by Linnaeus as crowning his work in systematic zoology, while the thirteenth edition, edited by J. F. Gmelin after the death of Linnaeus, contained many important additions to his published work.

Zoologists are greatly indebted to the Trustees of the British Museum for publishing the present facsimile, and they would be even more indebted if the Trustees could see their way to treat the present as being the first instalment of a series of such editions of basic historical works on systematic zoology.

FRANCIS HEMMING

MODERN TECHNIQUES OF BLOOD TRANSFUSION

Blood Transfusion in Clinical Medicine

By P. L. Mollison. Second edition. Pp. xxvi+587. (Oxford: Blackwell Scientific Publications, 1956.) 45s. net.

IN preparing this new edition, Dr. Mollison has skilfully sifted the voluminous literature of the past five years and has incorporated every significant advance in the clinical practice of blood transfusion, blood group serology and laboratory technique. As Dr. Mollison states, "just what is relevant to the subject of Blood Transfusion must necessarily depend to a great extent on the knowledge and interests of those who practise it", but those who are unfamiliar with the first edition will find that the author's interests and knowledge of his subject are such that this book contains sound and clear guidance on every problem which clinicians or pathologists may encounter in blood transfusion.

Many of the advances in knowledge have come from the Blood Transfusion Research Unit at the Postgraduate Medical School of London, of which Dr. Mollison is director, in developing procedures such as the measurement of the survival of red cells *in vivo* by the