

however, there must have been both greater warmth and more moisture to provide sufficient vegetation. The mastodons, tapirs, and perhaps macrauchenias, must have inhabited damp forests on the edge of swamps. The giant ground-sloths, Megatherium and Mylodon, could scarcely exist without forest vegetation. The numerous and varied small horses and llamas were as usual adapted for life on grassy plains. The Glyptodon was also probably a feeder on grass, and the Toxodon, which may have fed on dry scrub, seems to have been comparatively rare. When conditions began to approach those now met with at Tarija, all these animals would be either exterminated or driven to lower regions.

Like all his other descriptive works, Prof. Boule's account of the mammalian remains from Tarija is much more than a technical treatise. It summarises and briefly discusses our knowledge of the evolution of most of the groups represented. It teems with facts and suggestions which will interest both zoologists and geologists. It is a most valuable contribution to palæontological science.

A. S. W.

### Our Bookshelf.

*The Journal of the Institute of Metals.* Edited by G. Shaw Scott. Vol. 28. Pp. ix+1010. (London: The Institute of Metals, 1922.) 31s. 6d. net.

THE new volume of the Journal of this Institute is very bulky, owing to an increase in the number of pages occupied by papers and also in that of the abstracts. Two general lectures are included, one being by Sir Ernest Rutherford on the relation of the elements, and the other by Dr. Hutton on motion study and vocational training, the latter subject being a new one in this connexion. The sixth report to the Corrosion Committee is mainly concerned with the influence of colloidal corrosion products on the process, and contains much interesting matter, although the theory remains in a very imperfect state. The authors do not commit themselves to the support of any of the theories proposed in this field, and consider that several different processes are possible. A further contribution to the subject of the age-hardening of the light aluminium alloys is made by members of the staff of the National Physical Laboratory, and the hypothesis originally proposed to account for ageing is confirmed by the newer work. Several other papers deal with the properties of aluminium and its alloys. A curious binary system is that studied by Mr. M. Cook. The alloys of antimony and bismuth form a continuous series of solid solutions when allowed to solidify slowly, but if, by rapid cooling, a heterogeneous structure is obtained, prolonged annealing does not lead to diffusion. This paper contains some excellent photo-micrographs. Other papers include a general survey of eutectics by Mr. F. L. Brady, and a method of deriving a value for the absolute hardness of metals from the Brinell test by Mr. F. W. Harris, as well as several contributions on technical matters.

The abstracts section shows a great increase in bulk, and the literature of metallurgy has evidently been searched very thoroughly; but some space might be saved by the avoidance of duplication, and by omitting papers which are merely popular summaries of existing knowledge, containing nothing new. It is always difficult to decide where the line should be drawn in such cases, but the fact that the present volume extends to more than 1000 pages proves that discretion is desirable in the admission of abstracts to this important Journal.

*The Gold-Headed Cane.* By Dr. William Macmichael. A new edition, with an Introduction and Annotations by George C. Peachey. Pp. xxiii+195+5 plates. (London: Henry Kimpton, 1923.) 18s. net.

WE recently directed attention to an edition of the "Gold-Headed Cane" edited by Dr. F. R. Packard of Philadelphia (see NATURE, March 3, p. 281). The present volume, which represents the fifth edition of the work, is edited by Dr. George C. Peachey, who is well known in the medical world as the historian of St. George's Hospital and as a writer of various articles of medico-historical interest. In a scholarly introduction Dr. Peachey points out that the only two discoveries of real value which had issued from English thought before the Restoration were the work of physicians, namely, the discovery of terrestrial magnetism by Gilbert in 1603 and the demonstration of the circulation of the blood by Harvey in 1628. In the later period, however, and notably with the death of Sydenham in 1689, the year in which the autobiography of the "Gold-Headed Cane" begins, the leading physicians of the period whose lives are related by the Cane were remarkable for their success in practice rather than for any important additions they made to knowledge. No important contributions were made to medical literature by Radcliffe, Mead, Askew, or Pitcairn. An exception, however, must be made in favour of Matthew Baillie, whose position in the history of medicine as the first great English pathologist is not mentioned by Dr. Peachey.

The present edition, which is more sumptuous than any of its predecessors, contains in addition to the original illustrations six fine photogravure portraits of Radcliffe, Mead, Askew, the Pitcairns, and Baillie.

*Everyday Life in the New Stone, Bronze, and Early Iron Ages.* Written and Illustrated by Marjorie and C. H. B. Quennell. (The Everyday Life Series, II.) Pp. x+119. (London: B. T. Batsford, Ltd., n.d.) 5s. net.

MR. AND MRS. QUENNELL must have found their little review of the Neolithic and succeeding Ages vastly more difficult to write than their earlier book on the Old Stone Age. Not only is the material more heterogeneous in character and more widely scattered, but on many points with which they have had to deal summarily there is also a lack of agreement among archaeologists. The limitations of space and the requirements of their public have precluded any discussion of controversial matters. To bear this in mind is to disarm criticism on points which, in a more ambitious undertaking, might call for extended discussion.

Notwithstanding the vast amount of ground which