

practical use is increased by the fact that they give references to the most recent literature on the subjects with which they deal. The plan of the book has been well thought out, and its arrangement is such as to render the search for information contained in it an easy one. Special chapters are set apart for the integument and tegumental organs, the skeleton, the muscular system, the nervous system, the sense organs, the alimentary canal and its appendages, the circulatory system, and the urinogenital system. The arrangement of the matter in each of these chapters is further carefully classified. In certain places the terms used lack the accuracy which is essential to a work on human anatomy, thus (p. 91) on the "comparison of the fore- and hind-limbs of man," to speak of the leg and arm of the adult as "opposite extremities" is vague and inaccurate. Again, in the description of the lower end of the humerus (p. 77) confusion is caused by the application of the term "ent-epicondylar" foramen to the occasional perforation of the olecranon fossa, instead of confining this name for the foramen partially enclosed by the ent-epicondylar process, which is sometimes present in man. The theories put forward in some parts of the book to account for facts observed in man, seem scarcely adequate; thus, for instance, on p. 38 we are told "the shifting of the centre of gravity towards the dorsal side explains why the vertebral ends of the lowest ribs are so firmly attached." Yet a very similar condition of the more posterior ribs obtains in quadrupeds, in which animals a shifting of the centre of gravity towards the spine does not occur. In another place (p. 55) it is stated that in lower races, as in the apes, the process of obliteration of the cranial sutures beginning in the frontal region and proceeding backwards "naturally causes an earlier limitation in the growth of the anterior lobes of the brain; whereas in the higher (white) races, when the fronto-parietal suture disappears only after the obliteration of the parieto-occipital one, these lobes are capable of further development." The obliteration of the sutures in the frontal region does not necessarily limit increase in growth of the frontal bones, much less that of the contained brain, and further, it has been shown that the frontal lobes do not in their growth vary with the changes in position of the fronto-parietal suture. The posterior boundary of the frontal lobe—fissure of Rolando—has a relatively constant position during brain growth, so that a relative increase in size of the frontal lobes, in white races, does not take place during the time that certain of the cranial sutures are closing, or even after birth. In the chapter on the nervous system, it is a pity that the old and superseded observations of Möller are retained, and we read, "Man differs from the Anthropoids in the preponderance of the frontal lobe and, to a lesser degree, of the occipital lobe, and in a corresponding backward extension of the temporal lobe. The parietal lobe is about equally developed in the brains of man and Anthropoids" (p. 131). As a matter of fact the great extent of the parietal lobe, together with a corresponding decrease of the occipital lobe, is a human characteristic. In the Anthropoids the upper part of the posterior boundary of the frontal lobe is relatively further back than in man. It is a curious fact that Prof. Wiedersheim's book should adhere to the old view, that a well-marked occipital

lobe is a human characteristic, since it has been definitely shown that this part of the brain, which was at one time denied to apes, really attains in them its greatest relative development, and further, it is in the lower apes that a maximum is reached.

The presence of numerous illustrations, and of a glossary of the zoological terms used, in spite of its many failings, is sure to render this interesting and easily read translation of Prof. Wiedersheim's book very popular.

A. F. D.

OUR BOOK SHELF.

The Official Guide to the Norwich Castle Museum. By Thomas Southwell, F.Z.S. Pp. 294. (London: Jarrold and Sons, 1896.)

"THE value of a museum will be tested not only by its contents, but by the treatment of those contents as a means of the advancement of knowledge." This remark of Sir William Flower's is the key-note of the Committee of the Norwich Castle Museum, and in consonance with it the admirable guide-book at present before us has been constructed. The book is an interesting and useful guide to the collections in the Museum; it is not merely a catalogue, but a popular natural history in which the specimens in the cases are used as illustrations. Assisted by this guide, sightseers will pleasantly acquire a knowledge of the leading characteristics of the different groups of animals, and students will gain a large amount of sound instruction.

The scientific value of the book lies in Mr. Southwell's orderly review of the natural history specimens in the Museum. This forms the greater part of the contents; but there is also an historical account, by the Rev. Wm. Hudson, and a description of the collection of pictures, by Mr. G. C. Eaton.

The Museum was founded in 1825, and it existed as a private institution until 1894, when it was taken over by the Corporation, and established in Norwich Castle. The scheme for the conversion of the Castle, which had been condemned as a prison by the Prison Commissioners, into a museum and recreation grounds, was due to Mr. John Gurney, who died in February 1887. Mr. Gurney gave £5000 towards the scheme, which nucleus was afterwards increased by subscription to £14,389. The new home of the Museum collections was opened two years ago, and it is a credit to the Norwich Corporation and people. Very few local museums are better arranged than the one at Norwich, and in none is the educational object of the institution kept more in mind. To say that Mr. Southwell's guide is worthy of the Museum is, therefore, equivalent to stating that it possesses all the features which will make its readers appreciate to the fullest extent the *utile et dulce* of the collections.

Latitude and Longitude: How to Find them. By W. J. Millar. (London: Charles Griffin and Co., 1896.)

IN this concise little book the art of navigation is treated from an elementary standpoint. Commencing by explaining the meaning of a few mathematical expressions, including triangles, the author goes on to trigonometrical ratios and logarithms, and shows how they are brought into use for the purpose of finding a ship's position. The errors that have to be corrected are explained, as well as the determination of time and the use of the sextant.

The theory of the every-day work at sea, and also of lunar distances and Sumner's method, is given, so that with a small amount of mathematical knowledge a student of navigation can master the chief problems required to find the latitude and longitude at sea.

O. L.