

a concise method of expression until his ideas were so clear that a short handle appealed to him, not as a possible, but as a necessary convenience. The chapter as a whole is a very serviceable text-book on modern physiography and is of exceptional value to all who have previously been embarrassed by the inaccessibility of the literature on this subject.

The footnote references are many and well selected, and, although not complete, give a good introduction to the general literature. The illustrations are, on the whole, excellent, and the form of reproduction has been unusually successful. The book could well have been enriched with more illustrations of normal river topography, and would then have been much more valuable, both to student and teacher. The typography is clear and pleasing, and the book very attractive in its general form. A good index completes the volume.

We read the book through almost at one sitting, and laid it down with but two regrets: first, that there was not more; and second, that this, the best of the series of four monographs by Professor Russell, was not uniform in general appearance with its predecessors. It is certainly a misfortune that three publishers should have issued these four books. Had they been uniform in appearance, they would have been of greater interest to the general reader, especially to those who get pleasure from the shelf as well as the hand appearance of a row of related books.

We know of but few books that are so nearly what one would desire as this book. Adverse criticism can only be directed to details, and lamentation over details is out of place when a book is so generally pleasing as this.

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*Anatomy and Histology of the Mouth and Teeth.*

By J. NORMAN BROOMELL, D. D. S. Philadelphia, P. Blakiston's Sons & Co. 1898.

With 234 Illustrations. 8vo. Pp. viii + 428.

The book contains the best account of the teeth of man, which has yet appeared in the English language. It includes the treatment of oral anatomy and of dental histology and development. It is illustrated chiefly by original

photographs engraved in half-tone. The most important and most meritorious part of the book is comprised in Chapters VIII.-XI. (pages 131-280), which offer detailed and valuable descriptions of the teeth, marred only by a fantastic subdivision of the incisors, canines and first bicuspids of the upper jaw into four types, bilious, nervous, sanguineous and lymphatic, an astonishing revival this of mediæval pseudo-science in the midst of a work otherwise serious and intelligent. The author's descriptions are clear and admirable, and by their thoroughness meet a real need. In fact, it has long seemed singular that there should be no adequate detailed account of human teeth, but the need seems to be now well supplied.

The chapters on the teeth, above referred to, are preceded by the seven which deal with the anatomy of the oral region, and are followed by six chapters on the development of the teeth, the histology of oral structures and the histology of the teeth. Dr. Broomell's attempt to apply photography for histological illustrations is not encouraging, all of the figures of microscopic structure being very far inferior to cuts from drawings. The account of the development of the teeth is fairly good, but not equal to the standard of the anatomical part. Some minor errors appear in the embryological portions, for example, 'tooth band' is used instead of 'dental shelf;' the tooth germ in Fig. 180 is so distorted that it gives no idea of the true relations; in Fig. 181 the hole between the tooth and the shrunken enamel organ is labeled enamel. But it is not worth while to dwell upon these defects in a work of solid merit.

The publisher's share has been well executed, the general appearance of the volume being dignified and attractive, the printing excellent.

CHARLES S. MINOT.

BOOKS RECEIVED.

*The Foundations of Zoology.* WILLIAM KEITH BROOKS. Columbia University Biological Series. Vol. V. New York, The Macmillan Company. 1899. \$2.50.

*The Native Tribes of Central Australia.* BALDWIN SPENCER and F. J. GILLEN. London and New York, The Macmillan Company. 1899. Pp. x + 671. \$6.50.