

fessor Whitney's chief postulates is untenable.

Another postulate, and the one most essential to his general theory, is equally at variance with the ordinary belief of men, and is, in our opinion, equally erroneous. It will be considered in the third and final part of this article.

AMERICAN PALEOZOIC FOSSILS.

MILLER, S. A. *The American paleozoic fossils: a catalogue of the genera and species (etc)*. Cincinnati, the author, 1877, 1883. 16+334 p. 8°.

THIS second edition of Miller's catalogue of American paleozoic fossils consists of the original list issued in 1877, with a consecutively paged supplement of some ninety pages. The work is essentially a catalogue of genera and species, with names of authors, dates, places of publication, groups of rocks in which the species are found, and the etymology and signification of the names applied to them. There is also an introduction to the stratigraphical geology of the paleozoic rocks, a chapter on the construction and application of names in paleontology (contributed by Prof. E. W. Claypole), and an explanatory preface to the original, and to the supplementary part. It is needless to dilate on the usefulness of a work of this kind, which commends itself at once to the notice of working naturalists, even those not especially devoted to paleontological studies. Catalogues and bibliographies, even when of inferior execution, are always welcome to the student as labor-saving tools, and when well done are invaluable. The testimony of experts in this case is to the effect that the work has been done with care and completeness; though, as in all such catalogues, it would be strange if there were not some omissions. In the way of criticism, we should say that the addition of the number of the page to that of the volume, or to its abbreviated title, would have been little additional labor to the industrious compiler, and would save much time to the person using the work as a means of reference, especially to old works which are often destitute of an index. Furthermore, except in the case of confessedly absolute synonyms, we believe it is better to express the compiler's view, that a certain generic or specific name is merely the equivalent of another, by a mark of interrogation preceding the sign of equality and the supposed prior name. In this way there is less liability to error in matters about which authors are not universally agreed, than when a positive statement is made on one or

the other side. It would also be well if a bibliography of the works cited in the list, often by titles so condensed as to be difficult of recognition by those unfamiliar with paleontological literature, were to be added to the volume. These, however, are suggestions rather than criticisms; and we may supplement them by further suggesting that naturalists would be under still greater obligations to Mr. Miller, should his time and inclinations lead him to prepare similar catalogues for the later geological formations.

AUSTRALIAN CRUSTACEA.

Catalogue of the Australian stalk and sessile-eyed Crustacea. By WILLIAM A. HASWELL. Sydney, 1882. 24+324 p., 3 pl. 8°.

THE Australian museum has recently issued a list of Australian crustacea, much after the pattern of the list of New-Zealand crustacea, published six years ago. The present work is largely a compilation; the author for some reason usually preferring to copy the descriptions of authors, even when specimens were at hand, while the synonymy exhibits many proofs of a like treatment. There occur to us several species which should have been inserted in the list, but which appear to have escaped Mr. Haswell: these are,—

Paramicippa affinis Miers.
Halimus auritus Edwards. — (Pt. Philip, Kinahan, *Proc. roy. Dublin soc.*, i. 117, 1858.)
Lambrus latirostris Miers.
Leitocheira bispinosa Kinahan.
Pilumnopus crassimanus A. Milne-Edwards.
Pilumnus deflexus A. Milne-Edwards.
Neptunus rugosus A. Milne-Edwards.
Thelphusa angustifrons A. Milne-Edwards.
Thelphusa crassa A. Milne-Edwards.
Gelasimus longidigitum Kingsley.
Gelasimus annulipes Edwards.
Ocypoda fabricii Edwards.
Ocypoda convexus Quoy et Gaimard.
Pachygrapsus transversus Gibbs (P. levimanus Stimps.).
Heterograpsus crenulatus Edwards.
Cyclograpsus tasmanicus Jacquinot et Lucas.
Macrophthalmus dilitatus Edwards.
Macrophthalmus definitus White.
Calcinus latens.
Alpheus bidens Edwards.
 (Alpheus thetis White is merely mentioned, but not in such a manner as to imply that it belonged to the Australian fauna, as in reality it does.)

Still, leaving these deficiencies, the work will probably have a certain value for the students of Australia, as it brings together in a compact form descriptions of a large proportion of the crustacea of the antipodean continent.

J. S. KINGSLEY.