

would be found perfectly salubrious and productive in the highest degree. We cannot see the force of some of the arguments with which Capt. Moresby supports his plea for annexation. His strong attachment to the natives and his desire for their welfare we think mislead him as to how this is to be accomplished. If New Guinea is to be colonised by white men, all previous experience teaches us that the natives will inevitably suffer, will be demoralised, and ultimately extinguished. It is inexpressibly sad to think of such a fate overtaking these gentle and altogether superior natives of New Guinea; but how can it be helped, unless it is resolved to put a stop to the increase in the white portion of the world's population. We commend the Appendix to the notice of all interested in Australia, which already is beginning to feel itself overcrowded, and must sooner or later overflow, for, as is well known, the interior is a blank. If this country does not speedily annex New Guinea, some other country, with possibly less regard for the interests of the natives, certainly will. We hope at least that Capt. Moresby's work will be the means of giving a new stimulus to the exploration of this abundantly interesting island. Why don't the governments of the various Australian colonies combine to organise an expedition for its thorough exploration, with the countenance and assistance of the imperial government? With a man like Capt. Moresby at the head of such an expedition, how much might be accomplished.

OUR BOOK SHELF

Sketches of British Insects. A Handbook for Beginners in the Study of Entomology. By the Rev. W. Houghton, M.A., F.L.S. (London: Groombridge and Sons, 1875.)

THIS is an attractive little volume, suitable for a child's prize; it contains much useful and carefully selected information, accompanied by some excellent woodcuts, and six gorgeously coloured plates.¹ Although not wholly free from errors, most of them are happily confined to the chapter on Lepidoptera. It may not be amiss to point them out, as they are likely to mislead, and should be corrected in a subsequent edition.

It is doubtful whether the general reader will comprehend the author's statement that "there are no hermaphrodites in the class" of insects; the frequent occurrence of gynandromorphous specimens in collections being a seeming contradiction to this assertion.

The description of the oviposition of *Chrysopa* (pp. 62, 63) is not accurate. The insect, touching the surface of the plant-stem with her abdomen, draws out a thread of viscous matter, and by not at once excluding the egg attached thereto, gives it time to harden; it is *only by not removing* her body, or depositing the egg too soon, that the upright hair-like thread is produced.

In the chapter on Lepidoptera a number of statements are made, which (however seemingly true to the mere tyro in entomology) are perfectly erroneous: thus it is not true that butterflies ever have less than six legs, although the first pair are, in some families, aborted; butterflies cannot be separated from moths by any distinctions but those which serve to divide their families; for a butterfly has not always a pair of *club-shaped* antennæ, the antennæ of some

moths are distinctly clubbed. Although most butterflies carry the wings upright when in repose, the *Ageroniæ*, many of the *Erycinidæ* and *Hesperiidæ* settle with the wings flat and extended; some of the *Geometridous* moths on the other hand close them in an upright position over the back. The *Vanessæ* among the butterflies frequently fly by night, and are sometimes taken at sugar;¹ whilst the *Castniidæ*, *Agaristidæ*, *Zyganidæ*, *Egeriidæ*, many *Sphingidæ* and *Lithosiidæ*, some *Bombycidæ* and *Noctuidæ*, the *Uraniidæ*, some *Geometrina*, *Pyralidina*, *Tortricina*, and *Tineina* all fly by day.

The termination *inæ* should be used for sub-families; therefore it is incorrect to say that "the family *Papilionidæ* consists of two sub-families, the *Papilionidæ* and the *Pieridæ*."

The tails of the *Theclinae* are not a sufficient distinguishing character, since these appendages occur also in the British *L. batiscus* and its allies.

The Camberwell-beauty has, of late years, been seen on the wing by most entomologists, and the manner in which the squeaking of *Acherontia atropos* is produced has been fully described in a previous volume of NATURE. The wings of the female Vapourer-moth, although very minute, are clearly distinguishable; this insect therefore cannot be said to be "entirely destitute of wings."

The female stag-beetle bites somewhat sharply, but the male has comparatively little power; it is frequently taken to school by mischievous boys to alarm their fellows, but we never knew of a case in which it caused actual pain.

The Year Book of Facts in Science and the Arts for 1875.
Edited by C. W. Vincent. (London: Ward, Lock, and Tyler, 1876.)

THE present volume is a decided improvement on its predecessor, though it is yet far from being what we hope to see ere long—an annual record of science similar to the excellent American publication edited with so much ability by Mr. Baird. We are glad to observe that this year Mr. Vincent has embraced a wider range in his excerpts, though the newspaper reports of the papers read at the last British Association meeting seem to have been a little too heavily laid under contribution. But then one must remember what a godsend such reports must be to the editor of scientific scraps: two copies of each paper, a pair of scissors, and a gum-bottle, and the thing is done. It would, however, be an injustice to Mr. Vincent to leave our readers under the impression that this book is carelessly edited. Extracts from our own columns, the *Philosophical Magazine*, the *Comptes Rendus*, the *Chemical News*, the *Academy*, and other journals are largely made, and on the whole a wise discrimination and some care have been shown in the selection and arrangement of these scientific jottings. There are, at the same time, some striking omissions which ought hardly to have been passed over. No reference is made to Mr. Crookes's Radiometer and his experiments thereon, beyond a brief report of a discussion on the subject at the British Association. Nor is there any notice of the new system of quadruplex telegraphy, designed by Mr. Winter, nor of the largely increasing use of duplex telegraphy, owing to the valuable modification of that discovery—which really made the system a practical one—devised and carried out some time ago by Mr. W. H. Preece. We commend the editor to the columns of the *Telegraphic Journal* for information on these points. There are also other omissions of recent experimental researches, but as we have already said, this volume is not without its merits, and doubtless many will be glad to make use of the quantity of broken-up information it conveniently conveys. We presume Prof. Osborne, on p. 72, means Prof. Osborne-Reynolds.

¹ *Hesperiidæ* have also been taken at light.

¹ The plates are rather sticky, and consequently the tissue-paper occasionally adheres to them; this is, however, a matter for congratulation, as it subdues the excess of colour.