

botanist to Britain, in his Flora of North Yorkshire, and, more recently, in that of Northumberland and Durham. The limited extent of Middlesex, and the uniform character of its geology, give little scope for the application of these views to its Flora. The only Dysgeogenous rocks are the narrow outcrop of chalk in the north and north-west; the remainder of the county being composed of typical Eugeogenous strata. As far as it is possible, however, the authors have made good use of M. Thurmman's labours, and the limited application is to some extent compensated for by the accuracy of the details.

Appended to the volume is a valuable contribution to the history of British botany, covering to some extent the ground taken up by Pulteney in his "Sketches," and continuing it to the present day as far as the matter relates to Middlesex. Large additions are made to Pulteney's biographies of Turner, Johnson, Plukenet, Petiver, and Doody. New and interesting memoirs are given of Buddle, Blackstone, Curtis, and other less known investigators of Middlesex plants. It would be greatly to the advantage of science, if the authors, encouraged by the success which has attended their investigations into the progress of Middlesex botany, would continue their researches, and give us, not a new edition of Pulteney, but a new History of Botany in Britain.

W. CARRUTHERS

OUR BOOK SHELF

Van Heurck on the Microscope.—*Le Microscope, sa Construction, son Maniement, et son Application aux Etudes d'Anatomie végétale.* Henri van Heurck. 8vo. pp. 223, with Illustrations, price 3s. (Antwerp, 1869. London: Williams and Norgate.)

THE title-page of this little work, a mere fragment of which we have transcribed above, is perhaps its most objectionable feature. The ambitious superscription, however, need not affect its usefulness as an elementary descriptive treatise, and the English reader may add to his information by the perusal of a manual of microscopical manipulation written from a French or Belgian standpoint.

We have no manual in English of precisely similar scope and intention with which to compare M. van Heurck's; the one which it most resembles is, perhaps, Mr. Currey's translation of Dr. Schacht's excellent guide to the use of "the Microscope in Vegetable Physiology," the chief difference being in point of thoroughness: the former is a popular, the latter a scientific work.

M. van Heurck's book is divided into two portions, of about one hundred pages each: the first, on the construction and choice of a microscope; the second, on its application to vegetable anatomy. We may describe each section in a few words.

Naturally, the instruments of French makers have prominence assigned to them; and most of the well-known models manufactured by Hartnack, Chevalier, and Nachet are figured, together with one or two modifications we do not recollect having seen before. In too many of these, cheapness and simplicity go hand in hand with toy-like inefficiency. Some are of more interest, such as Chevalier's "Universal Microscope," and a "vertical," or rather "inverted," arrangement constructed by M. Nachet for photographic purposes. In the section devoted to manipulation, the subject of micro-photography is treated at greater length than has been customary in such works.

All notice of the microscopes of English makers appears to have been omitted in the first Edition of "Le Microscope," beyond a general intimation that their "price is exorbitant, and their complication excessive;" but, "at the

request of subscribers," an appendix has been prepared to the present issue, containing a description of the instruments of Ross, R. and J. Beck, and Powell and Lealand. This seems to be written with only partial knowledge, and with very unequal justice.

The second portion of the book contains little of novelty in either fact, theory, or method. Beginners will find in it the sort of information they require to enable them to examine and mount vegetable tissues, and the numerous little woodcuts will enable them to understand the more important structures. There is also a section on the application of reagents, intended for those who have advanced a step farther in histological pursuits.

We may repeat that, though M. van Heurck's work will not bear comparison with several of our English manuals in completeness, the reader will scarcely rise from it without having gained a few useful hints.

H. B. BRADY

Bryologia Silesiaca. Von Dr. Julius Milde, Professor in Breslau. (Leipzig, 1869.)

THIS is a systematic description of the mosses, not only of Silesia, but also of Jutland, Holland, the Palatinate, Baden, Franconia, Bohemia, Moravia, and the neighbourhood of Munich. Special attention is, however, devoted to the Silesian flora. The work is prefaced by an account (for the use of beginners) of the most important organs of the musci in reference to the determination of species.

New Batrachians.—*Ueber neue und wenig bekannte Batrachier aus Australien und America.* Von W. Kefenstein, Prof. in Göttingen. (Berlin, 1868.)

THE Göttingen Museum is rich in Australian frogs. Prof. Kefenstein here describes, from the museum specimens, twenty-nine species. He also enumerates nineteen others, recorded as such in the literature of batrachiology, although their specific value appears, in many cases, to be doubtful. The frog-fauna of Australia, according to Prof. Kefenstein, bears a great resemblance to that of South America. Some batrachians from Costa Rica are likewise described in this brochure. Five plates of figures are appended. It may be worth mentioning that the authorities of the museum will be glad to exchange some of their superfluous Australian species for other batrachians.

The Sandwich Islands.—*Ein Jahr auf den Sandwich-Inseln (Hawaiische-Inseln).* Von Dr. J. Bechtinger.* (Wien, 1869.)

THE chief interest of this volume lies in its pictures of the social and moral condition of a primitive people in close contact with modern civilisation, and the subject for many years of unexampled missionary efforts. The author enters somewhat fully into the character of the climate, the nature of prevalent diseases, the physical and psychological characters of the people, and their probable ethnic affinities. Leprosy is a disease unfortunately very prevalent among the inhabitants, and their Government have hit upon a notable plan for putting the sufferers out of sight, and preventing the spread of the disease by contagion. In the island of Molokai there is a plain near the sea, and walled off from the rest of the island by mountains from two to four thousand feet high, and almost totally inaccessible. To this spot lepers are conveyed by a vessel which periodically leaves Honolulu for that purpose, and for the purpose of carrying food. Every other communication with the sufferers is strictly prohibited. Dr. Bechtinger had a very natural desire to visit this forbidden valley, and ascertain the condition of its inhabitants. Knowing, however, that great opposition would be made to his doing so, he resolved to go thither privately, and attempt to reach the valley over the mountain range at its back. Attended by a photographer, he succeeded in his project, and found the poor wretches (hundreds and hundreds of them) in a most horrible state, utterly neglected and almost entirely without the