giving in an accessible form a detailed account of the structure of these plants from the pen of one who has already distinguished himself in this field. The second volume is brought to a close by a treatise by Haberlandt named "Die physiologischen Leistungen der Pflanzengewebe," a subject well suited to one of the Schwendenerian school, to which its author belongs. Anatomical facts, many of which are already well known, are here placed before the reader in the light of the anatomico-physiological method, which the pupils of Schwendener claim as having been initiated by him in 1874.

From what has been already said, it is clear that this "Handbook" will, by the individual worth of many of its articles, take a prominent place among standard botanical works, and will undoubtedly be of great service to advanced students. Further volumes are still in progress, and the appearance of their successive numbers will be looked forward to with interest. F. O. B.

OUR BOOK SHELF

A Synopsis of the British Mosses. By C. P. Hobkirk, F.L.S. Second Edition. 8vo, 240 pages. (London: L. Reeve and Co., 1884.)

THIS is a new edition of a work that appeared originally in 1873. There is no other recent handbook of British mosses, so that it has had the field entirely to itself, and has had a large circulation amongst our home collectors. It is a cheap working handbook, something on the scale of Babington's "Manual of the British Flowering Plants and Ferns," without any figures, but with full diagnostic characters of all the indigenous genera and species. Britain is exceptionally rich in mosses, and in this new edition 129 genera and 576 species are enumerated and described, with a short notice of locality.

Mr. Hobkirk is well known as an excellent practical bryologist of many years' experience. He has not attempted either in this or the previous edition to introduce any novelty in classification. In the first edition he followed Wilson closely, and Wilson in his turn deviated but little in arrangement, nomenclature, and the circumscription of genera and species from the great standard work on the mosses of the whole of Europe, the magnificent "Bryologia Europea" of Bruch and Schimper, which contains elaborate figures of every known species. In this second edition Mr. Hobkirk has altered his classification to correspond with that of Jaeger's "Adumbratio Muscorum," a change which we consider of very doubtful utility, as it has the effect of making the preliminary synopsis much more elaborate and more difficult for a beginner to understand and use.

An illustrated work on British mosses brought up to the standard of Bruch and Schimper has been greatly wanted. Now, Dr. Braithwaite is bringing out in parts a work of this character, with admirable original drawings and detailed descriptions. At the present time this is about one-third completed, and it is greatly to be hoped he may have health and strength to finish it. For any one needing a cheap working handbook we can cordially recommend the present book. It contains a brief glossary of terms. Only the names that are adopted are given, without any synonyms. One fault in the preliminary key that will puzzle a beginner is the want of definitions for the two primary divisions—Sacomitria and Stegomitria. Another point that without explanation will likely puzzle students is that the authorities cited for each species are those of the author who first used the specific name, taken quite independently of the genus under which it is now placed, so that, for instance, Linnæus is cited as the authority for *Eucladium verticillatum*, when the genus *Eucladium* was first characterised by Bruch and Schimper

half a century after Linnæus died. The orthodox plan is to cite the authority for genus and species combined.

J. G. BAKER

Our Insect Allies. By Theodore Wood. 8vo, pp. 1-238. (London: Society for Promoting Christian Knowledge, 1884.)

WRITERS on popular entomology are hard driven nowadays to find titles for their works, or subjects that have not already been worn to shreds by previous authors. To be successful they must possess the same talent that enables a *chef-de-cuisine* to contrive an *entrée* from the same materials, so disguised by name and sauces as to lead his patrons to consider they are partaking of a new dish. The author of this nicely got up little book has evidently felt himself in such a position, but on the whole he has succeeded very well, the more so because there are fewer errors than ordinarily exist in popular entomological works. He takes as his standpoint the fact that very many insects are indisputably serviceable: some by ridding the world of putrid or unhealthy organic matters, both animal and vegetable; some by destroying other insects undoubtedly noxious. The result is that we get here a series of histories of individuals or groups detailed in popular language, often from personal observation, and for the most part well illustrated by woodcuts. The author evidently feels himself most at home in dealing with the *Coleoptera*, and, as we think, judiciously takes up the position that bark-beetles and wood-borers are scavengers, seeking to devour what is already morbid, and are not the cause of decay in the trees in which they are found. We fail to follow his account of the mechanism by which the click-beetles (p. 207) perform that acrobatic movement so familiar to our childhood in the shape of the "jumping frog"; to our mind the "mucro" that is the chief agent in this action is not "elastic." Why are the *Aphis*-parasites known as *Aphidius* stated to be *Chalcididae* (p. 168)? Why is a *Syrphus* larva figured (p. 160) as that of a "Golden-Eye," or "Lace-Wing"? The introductory remarks and the concluding notes contain some very judicious reasoning on the aim and purpose of entomological studies, and we sincerely wish we could agree with the author (p. 236) that collectors, as opposed to students, are "now in a very small minority"; a vast improvement towards this end has undoubtedly taken place latterly, but the time for congratulation has not yet arrived. The Society under whose auspices this little book is published has done much towards popularising natural history in this country; this work may be classed amongst the best of the series, and no doubt in a second edition the author will revise it and rectify a few palpable errors.

LETTERS TO THE EDITOR

[The Editor does not hold himself responsible for opinions expressed by his correspondents. Neither can he undertake to return, or to correspond with the writers of, rejected manuscripts. No notice is taken of anonymous communications.]

[The Editor urgently requests correspondents to keep their letters as short as possible. The pressure on his space is so great that it is impossible otherwise to insure the appearance even of communications containing interesting and novel facts.]

Shifting of the Earth's Axis

HAVING quoted the Greenwich observations so often, and with all respect, during the last twenty years, in my several Great-Pyramid publications, as showing that there is a slow shifting of the earth's axis going on, with the effect of altering the latitude of places minutely from age to age (see more especially p. 81 of fourth edition of "Our Inheritance in the Great Pyramid"), I cannot remain unconcerned when the present energetic Astronomer-Royal comes out so very positively with the statement that the Greenwich observations of the last forty-seven years (which he confines himself to) show nothing of the kind, and that there is no such movement of the earth's axis going on.