

containing a list of the scientific writings of the two Bonds, compiled by Mrs. Richard F. Bond.

We cannot bring this notice to a conclusion without referring to the admirable way in which the lives and work of these two men have been set forth, and to the excellent reproductions of those celestial objects which will always be connected with their name, namely, Donati's Comet and the Nebula of Orion.

WILLIAM J. S. LOCKYER.

OUR BOOK SHELF.

Hints to Teachers and Students on the Choice of Geographical Books for Reference and Reading; with Classified Lists. By Hugh Robert Mill, D.Sc., F.R.S.E. Pp. 142. (London: Longmans, Green, and Co., 1897.)

A BIBLIOGRAPHY is always a difficult work to compile satisfactorily, and it becomes an even more delicate undertaking when an eclectic method is followed. The "Bibliotheca Geographica," which Herr Otto Baschin edits for the Berlin Gesellschaft für Erdkunde, is an example of the comprehensive type of bibliography, and Dr. Mill's little book admirably represents the type which aims at being serviceable rather than complete. Of the direct value of the book to teachers of geography, and indirectly to the science of geography, there can be no question: what surprises us is that Dr. Mill should have had the temerity to prepare it. Few people care to publish lists of what they consider to be the best books on any particular subject; and those who do commit themselves are often afterwards visited with mild regret. The author of this book, however, occupies an exceptional position for knowing what geographical works are in existence, and his lists of books show that he has made his selections carefully and with a mind free from prejudice. The volumes are classified under seventeen different headings, and dealt with in as many sections. A chapter on the principles of geography forms a suitable introduction to the more practical part of the work.

But a list of books, even when annotated, is not a sufficient guide to a teacher, and it needs to be supplemented by a few remarks upon the general utility and educational value of the works mentioned. We are glad, therefore, that Dr. Mill precedes each list with a brief description of the particular branch of geography, or the continent, to which the books refer, and with hints on the use of the books. From the notes and the lists it is easy to learn what volumes are best to read, and where to turn for trustworthy information upon any geographical subject met with in ordinary life. The student may refer to the book with confidence, and the teacher of geography will benefit by taking it as his guide.

We notice that the volume was prepared at the request of the Geographical Association. The Association could find no better way to further its objects than by encouraging the publication of works of this character.

Sleep: its Physiology, Pathology, Hygiene and Psychology. By Marie de Manacéine. Pp. vii + 341. (London: Walter Scott, Ltd., 1897.)

THIS book is divided into four chapters dealing with the subdivisions of the title. A good account is given of the phenomena and theories of sleep. The chief abnormalities are well described, and the author includes an account of certain allied conditions, such as double consciousness and Latah. The references to general pathology in this section are apt to be somewhat antiquated, as when the mental enfeeblement of goitre is ascribed to withdrawal of blood from the brain. The

subject of hygiene of sleep is evidently that to which the special work of the author has been devoted. She lays great stress on the proper management of sleep, and has somewhat novel views on the evils of prolonged sleep, and of fixed hours for sleep, and on the harmfulness of rocking babies in order to make them sleep. She describes very fully a condition which she terms the hypnagogic or half-awakened state, a condition characterised by increased suggestibility which is regarded as having an unfavourable influence on the mind if allowed to become well developed.

The chapter on psychology is devoted chiefly to dreams, of which a good systematic account is given, without anything especially new. The author seems to regard dreaming as an indication of high mental development; "dreams increase with the variety and activity of mental life," because intellectual workers dream more than servant girls. May this not be due to the fact that servant girls are usually the sounder sleepers?

Lessons from Life, Animal and Human. With an Introduction by Rev. Hugh Macmillan, LL.D. Pp. xvi + 529. (London: Elliot Stock, 1897.)

THIS book is intended for preachers and Sunday-school teachers, and the lessons which it draws are not inferences but moral analogies. Thus an account of the bower bird establishes the maxim that "the relief times of life secure bodily and mental energy, and good spirits." The advertisements at the end of the book inform us that there are several volumes on the same plan, and that they have a good sale. The one before us is a compilation from many authors, with Darwin at one end of the scale and a crowd of obscure or anonymous writers at the other. The author is not particular in his choice of materials. He draws lessons from the most unlikely stories, and his familiarity with the literature of natural history can be estimated by the fact that he attributes to George Shaw the delightful account by Gilbert White of the behaviour of Timothy, his tortoise, in a shower of rain. The illustration or epigram from nature, which is so attractive in Shakespeare and other great writers, is here reduced to a "sad, mechanic exercise." When the allusions and emblems are arranged in cyclopædias, so that the preacher has only to look up a virtue or a vice in the index to find a more or less appropriate analogy, it is plain that the didactic anecdote is now "hackneyed and worn to the last flimsy thread."

L. C. M.

All about Animals, for Old and Young. Oblong 4to. (London: George Newnes, Ltd., 1897.)

ALTHOUGH the title is somewhat pretentious, this collection of large size photogravures is an enormous advance on the old-fashioned animal picture-books; and the volume forms an attractive Christmas gift for young people interested in natural history. All the plates are good, and some are excellent, although a few suffer from over-enlargement. A naturalist will, however, notice that one plate of deer is wrongly named; and a few emendations might here and there be suggested in the explanatory letter-press. This is for the most part well and brightly written, and serves to enhance the interest of the figures. In the first half of the book the greater number of the illustrations are from photos by Mr. Gambier Bolton, but in the second half other artists' names appear. And many of these latter are merely repetitions of the animals figured in the first half. This is decidedly a pity, as many other species might have been introduced. In a future edition these replicas might be replaced by others; and a rearrangement of the whole series in some sort of order would also be advisable. Even as it stands the book ought to be and doubtless will, command a large sale.

R. L.