

In treating of each main division of the animal kingdom, the author begins with a classification of the group and general remarks on its biology and characteristics. Then he takes each class in order, and gives an account in some detail of a type-animal, followed by notes on other interesting genera in the class. In the smaller classes, the type may be omitted. Finally the embryology and affinities of the group are discussed. Sometimes the orders also are characterized, especially among the vertebrates, at other times this is unnecessary.

It is impossible to mention fully either the good or bad points of the book in a short review. It is very well up to date in most respects. Résumés are given of important discussions, such as that regarding the origin of the vertebrates, the position of *Balanoglossus* and other Hemichordata, etc. In most cases the treatment of the various subjects discussed is impartial to a degree. We hear something of "anabolism," "katabolism," "maleness," "femaleness," and so forth, but not too much; and the author's opinions are never dogmatically expressed. On the opposite side of the account must be placed the fact that some phylogenetically important groups are very inadequately discussed, apparently because of their small size, the Polyzoa and Brachipoda, for example. Among the Rotatoria, *Trochosphaera* is apparently not mentioned at all. A feature of questionable advantage is the constantly recurring tables of resemblances and differences between families, orders, classes, and sub-kingdoms. These tables undoubtedly present matters in a striking form, but as undoubtedly they lead to "cram work" in the case of many students. Perhaps this is the reason for their presence. Mr. Thomson says that his book is partly intended for medical students, who, for the M.D. degree in Edinburgh and other British universities, are required to pass an examination in zoölogy. It may be that the tables were inserted with a special view to their requirements. And still another serious defect in the book is the way in which it is mis-illustrated by 32 full-page plates of rough diagrams. None of the illustrations can be called good, some are atrocious.

Still, taking the book all in all, it is perhaps the best lecture-companion for college students in English at present, and it is to be hoped that an American edition may soon be forthcoming.

JOHN GARDINER.

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#### AMONG THE PUBLISHERS.

To encourage the use of the microscope, which certainly has proved a fascinating hobby for many as well as a most important art for all science-workers, the Bausch & Lomb Optical Company, Rochester, N. Y., has for some time published a hand-book, entitled "Manipulation of the Microscope" (75 cents), by Edward Bausch. That this book has served a good purpose is evidenced by there having been ten thousand copies sold.

— In the announcement of new books and new editions for the holiday season of 1892 the eight-volume set of "The Lives of the Queens of England," by Agnes Strickland, is foremost in J. B. Lippincott Company's list. The work is a reprint of the author's latest revised edition and contains portraits of the queens of England and numerous other illustrations especially prepared for this edition. Dr. Charles C. Abbott, so well known as a most delightful writer upon nature, has a volume of his "Recent Rambles." Most of them were made through the Delaware Valley, the region he has made peculiarly his own, but by way of contrast we also have trips in New Mexico and Arizona, and a wandering through a seaside forest. This is the first one of Dr. Abbott's books to be illustrated, and it contains nineteen reproductions of photographs made by himself. In addition to other important announcements, we note that Mr. W. S. Baker has again laid students of American history under obligations in the "Itinerary of General Washington," which with great pains and accuracy he has compiled from original sources. The work embraces the period of the revolutionary war.

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#### CALENDAR OF SOCIETIES.

Numismatic and Antiquarian Society,  
Philadelphia.

Oct. 6.—The president, Dr. D. G. Brinton, described a recent visit to the aboriginal jasper quarries in the Lehigh Hills, Pennsylvania. Two sites were examined, in company with the discoverer, Mr. H. C. Mercer, and Mr. Charlemagne Tower, president of the Board of Managers of the Museum of the University of Pennsylvania. The pits at one site numbered about sixty; at the other nearly double that number. Some were eighty feet in length by twenty to thirty feet wide and must have been at least twenty to thirty feet deep. An enormous amount of the material had been excavated and carried away to be worked into arrow and spear-heads. Quantities of quarry rejects were visible, and one work-shop site was visited. The discovery of these quarries adds greatly to the correct knowledge of the archaeology of Pennsylvania. Dr. Robert H. Lamborn exhibited and described two copper turtles of singular workmanship, one from the Casas Grandes, the other from Chiriqui, Central America. Both displayed the peculiar character of wire-work in use by the native copper and gold-smiths.

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