that the poetry of one age necessarily reproduces the thoughts and modes of expression of previous ages.

It thus appears that the method of treatment which undoubtedly was admirably adapted to the study of the Greek and Roman period becomes less and less satisfactory as the present day is approached. The early chapters are, therefore, by far the most interesting. They deal with the effects of Christianity in turning man's thoughts from the things of this world to spiritual matters, and with the revival of the feeling for nature among the German races, who, living in a northern climate, were naturally led to appreciate and value the beauties associated with the coming of summer. But it may be reasonably urged that evidence of later-day developments of the feeling for nature should be sought in science rather than in art, in the interest taken in the study of natural phenomena rather than in the recantation of praises of sunshine, sea, and the nightingale's song.

It is fairly certain that if some readers do not find this book as interesting as they expect, there will be others who will enjoy its perusal more than this review suggests, and we may safely apply to Prof. Biese the Yorkshire quotation, "He did his best and he couldn't do owt else."

OUR BOOK SHELF.

A Handbook of York and District. Prepared for the Seventy-fifth Meeting of the British Association for the Advancement of Science, 1906. Edited by Dr. G. A. Auden. Pp. xvi+365. (York: J. Sampson, 1906.)

THE handbook which has been prepared for the benefit of those attending the forthcoming meeting of the British Association at York will be found to be exceedingly useful. The volume is neatly bound and printed on suitable paper, is of the size now usually adopted by the local committees, and has a most appropriate design on the cover. Undoubtedly most of the members attending the York meeting will take an interest in the relics of the past with which this ancient city abounds. It is natural, therefore, that by far the greater portion of the book should be devoted to a description of the various antiquities from prehistoric to mediæval times. The editor, Dr. Auden, describes the prehistoric remains, Mr. H. M. Platnauer refers to the relics of the Roman and Danish occupations, and other writers continue the story.

The second part of the volume, which is restricted to 100 pages, contains an account of the geology, botany, zoology, and meteorology of York and district, and, as might be expected from the space allotted, this part of the work is much more condensed, and is not so readable as the earlier portion. The Rev. W. Johnson describes the geology of the district in a chapter exceedingly brief, possibly due to the fact that "the geology of York is, in one sense, of the simplest kind." Dr. W. G. Smith, of the Leeds University, gives an interesting general survey of the botanical features of the district. This chapter is particularly appropriate in view of the leading part being played by Dr. Smith and his colleagues in Yorkshire in reference to botanical survey. Lists of flowering plants, algæ, fungi, Hepaticæ, Sphagnaceæ, Musci Veri; mammals, birds, reptiles, amphibians, fishes, beetles, butterflies, moths, and land and fresh-water shells are given by various York

workers. In most cases, unfortunately, the exigencies of space prevent much more than lists of species, but it can be safely said that this portion of the handbook forms an epitome of the natural history of the district. Mr. J. E. Clark brings the volume to a close by some meteorological notes.

There are three maps sent with the volume, all of which are excellent. It was a happy thought to reproduce Skaife's archæological map of York, and with the help of the Ordnance Survey department a really charming map of the greater part of Yorkshire is produced. The third is obviously principally for the use of the geological section, and is coloured so as to show the glacial lakes, moraines, &c.

T. S.

Bacteria in Relation to Plant Diseases. By Erwin F. Smith. Vol. i. (Washington, D.C.: Carnegie Institute, 1905.) Pp. xii+285.

AN authoritative account of bacterial plant diseases has long been a desideratum, and no investigator more competent than Mr. Erwin Smith, of the U.S. Department of Agriculture, who has himself made important original contributions to the subject, could be found to undertake such a task. The bacterial diseases of plants are, however, only incidentally mentioned in this, the first volume of the work, which is mainly devoted to methods of investigation and to a bibliography of the general literature of bacteriology, exclusive of plant diseases. As a guide to general bacteriological methods we know no better, though, as it is a preliminary to plant bacteriology, methods specially applicable to pathogenic organisms attacking men and animals are necessarily not to be found. Sterilisation, the preparation of culture media, methods of infection, the investigation of chemical products, keeping of records, and equipment of the laboratory are all dealt with very fully, explanatory figures being used liberally. A considerable section is also devoted to an account of photomicrography. The difficult question of the nomenclature and classification of bacteria is critically discussed at considerable length, and forms an excellent summary of the whole subject. At the end of the volume a number of useful formulæ for stains, etc., is collected, and the bibliography, which extends over sixty-four pages, and index complete the work. The volume is excellently illustrated with thirty-one plates and 146 figures in the text. We congratulate Mr. Smith on this, the first, though perhaps the easier, portion of his task, and shall await the appearance of the next volume with considerable interest.

R. T. HEWLETT.

Outlines of Zoology. By Prof. J. A. Thomson. Fourth edition, revised and enlarged. Pp. xix+856. (Edinburgh and London: Young J. Pentland, 1906.) Price 15s.

THIS book has very great positive merits and very slight defects. Though it is packed with facts, and can be recommended to students preparing for examinations, yet it is never dull. Prof. Thomson describes animals, not as corpses, but as living creatures with interesting habits that depend largely on their structure. The method leads to expansion, and yet this excellent zoological text-book is a single royal octavo of hardly more than eight hundred pages. Though our author, to use an American term, "enthuses" his readers, he does not waste words over it.

In his general survey in the first chapter he begins with monkeys, as being the animals most like man, and works down to the Protozoa. In the body of the book, reversing the order, he proceeds from the lowest