

hundred particular inquiries, some of which are very quaint, e.g. "Now that there are so many nature-books, how shall I choose the most useful one?" or, already, "Is nature-study on the wane?"

(2) Mr. Arthur H. Patterson has added a fourth volume to his series of east-coast books, and it is welcome, for the author writes with a light touch of the business of man and beast on the tidal waters of East Anglia. He describes at first hand much that is of interest regarding punt-gunning, decoying, snipe shooting, smelt fishing, shrimping, eel catching, and so on, and gives us delightful glimpses of the bird-life in particular. There is a great deal of fisherman's gossip in the book, but it is wholesome, open-air gossip, now and then cutting into the circle of the sciences.

(3) Sir Digby Pigott's nature-story for boys and girls is a sequel to "The Changeling," in which the author worked out, in a manner that pleased many, the idea of a child who was at one time a rook, at another a bee, at one time a fox, and at another a wild goose, and in due course a swift, a mole, and a short-eared owl. The author seeks to get young folks into close quarters with the real life of wild creatures, introducing them, through "Tommy's" adventures, to fur-seals and skuas, walrus and peregrines, and even to the dodo and "Archæopterix." We find the book a little too informative, but it is kept, on the whole, commendably simple, and we doubt not that it may be useful for those children who really enjoy getting at things in this curiously circuitous fashion. The notes seem to us to be an artistic mistake.

(4) Dr. Graham Renshaw's natural-history essays are well known and justly admired, but he has excelled himself in the sequel, which deserves its title of "Animal Romances." With the help of more than a score of peculiarly interesting and artistic photographs, he has succeeded in giving us living pictures of many wild animals in their natural setting—giraffes ("the dream creatures," "the aristocrats"! Grevy's zebras ("the Horses of the Sun"), elephants ("the giants"), hippopotamus ("Behemoth"), and so on. He stays longest in Africa, but he takes us also to the Andes, to the Antarctic ice, to Tasmania, and elsewhere, and is always a lively guide. There is plenty of science in his nature-pictures, but there is poetry, too, and his book is literature of high quality.

TECHNICAL CHEMICAL ANALYSIS.

Technical Methods of Chemical Analysis. By Prof. George Lunge. English translation, edited by Dr. C. A. Keane. Vol. i., parts i. and ii. Pp. xxiv + 996. (London: Gurney and Jackson, 1908.) Price 2l. 12s. 6d. net.

A BOOK which covers such a wide ground as Prof. Lunge's "Technical Methods of Chemical Analysis" is by no means easy to review. No one chemist, for example, is likely to be practically conversant with all the branches of analysis which are dealt with, and, recognising this, the author has, as is usually the case in similar works, obtained those

who have specialised along certain lines to undertake the writing of such sections.

One of the difficulties to the reader of books like this is that to some extent it is a dictionary of methods, and it is sometimes a little bewildering to know which of many methods given for the analysis of one special substance is the best to employ. It is consequently not a book for the ordinary student, but one for the experienced worker, although even he will require to bring his critical faculty into play. The book is well written and is interesting to read, and those who study it will find it to contain quite an extraordinary amount of information which is by no means only analytical. The sections on clay and on clay wares, earthenware, and glazes are, for example, most interesting to read, even if one has no intention of carrying out the analysis. We like the arrangement of the section on potassium salts; first, all the methods employed are given in detail, and then the applications of these methods to special cases, such as analysis of Stassfurt salts, manures, beet ashes, and so on.

That the book is of the utmost value in the laboratory—in fact, almost indispensable—we can vouch, as since its publication it has been in constant use, and it is rarely that, within the scope of this volume, we have not obtained the information desired.

In conjunction with this volume an extremely useful little handbook of 260 pages, called "The Technical Chemist's Handbook," has also been issued. It is in limp cover, and of such a size that it can be carried in the pocket. Nearly 100 pages consist of tables, comprising, among others, factors for calculating gravimetric analysis, specific gravities, boiling points, tension of aqueous vapours, and weight of sheets of metals; there are, in fact, thirty-nine useful and valuable tables. The special part which follows deals with methods of analysis under various headings. To take an example at random, "III. Saltcake and Hydrochloric acid; A. Salt, B. Saltcake, C. Chimney-testing, D. Testing of the Gases in the Hargreaves Process, E. Hydrochloric acid." It should be mentioned that beside the thirty-nine tables referred to there are further tables in the special part, for example, the specific gravities of hydrochloric acid.

Dr. Lunge and Dr. Keane are to be congratulated on the issue of this volume, the one for writing it and the other for so ably editing the English edition. We hope that it will not be long before vols. ii. and iii. are ready.

BRITISH FOSSILS.

Palaeontographical Society. Vol. lxxiii., 1909. (London: The Society, and Dulau and Co., Ltd.,

THE sixty-third volume of the Palaeontographical Society's monographs contains instalments of works already in progress, and the council announces its desire, so far as possible, of completing these before commencing new monographs, for which they have received numerous proposals.

Prof. S. H. Reynolds continues his monograph of the British Pleistocene mammalia, here dealing with