

Lessons with Plants. By L. H. Bailey. Pp. xxxi + 491. (London: Macmillan and Co., Ltd., 1898.)

THOUGH written for the use of teachers and students of botany in North America, this book will be found almost as useful on this side of the Atlantic. Very many of the plants employed as examples are either natives of, or very generally cultivated in, the British Islands, and could easily be obtained both in country and in town. Even where the selected examples are not themselves readily procured among us the methods of study, the lessons drawn from them, and the suggestions offered for further personal investigation, are very often such as could be readily applied by an intelligent reader to British species.

The author very consistently carries out his method of instruction. He assumes that the pupil is absolutely ignorant; and taking familiar objects, such as an apple-twig, he shows simply and well the information that can be read in them by the trained eye and mind. The book is admirably fitted to give training in the methods of observation, in so far as that can be given during school-life. It should be of peculiar value to teachers if used (as the author, in the introduction, points out that it is meant to be) to suggest how lessons can be drawn from any and every plant. One cannot read many pages without realising that the careful observation and accurate knowledge gained by the teacher that works out examples in the manner followed here will enable him to make the subjects taught by him very real and living. It is the true scientific method applied to the first steps in botany. To the beginner in the science, also, who wishes to learn, but cannot obtain systematic instruction, this book would be an excellent introduction. If each section were read with the actual specimens in hand, and compared with the description step by step, and, still more, if the "suggestions" were followed out practically, the student would have gained a very valuable training, and a trustworthy foundation on which to build up the wider study. The method followed is naturally somewhat informal; but it allows of many sides and applications of botany being touched on in a way to awaken the interest of pupils; and the information conveyed is of a kind that does not require to be unlearned, but can be built up into its proper place as the study becomes more systematic. Occasionally one feels that the explanation is insufficient, and that it must leave a vagueness in the mind of a beginner, as, for example, where we are told that it is "the custom of botanists" to "say that when either floral envelope is wanting it is the corolla (unless there is some special reason to the contrary). This is, generally, an arbitrary definition, but it would be just as arbitrary to say that the sepals are missing." It is scarcely "evident" in respect of the ligulate flowers of the dandelion and *Rudbeckia* "that if the corolla of a floret were to develop to such a length, it could not spread equally in all directions, as a mathematical calculation will prove; it therefore develops in one direction, as a leaf does." The description of the flowering spurge would scarcely be clear to a beginner. But such defects are so inconspicuous as to detract little from the value of the book, which is enhanced by many excellent original "delineations from nature."

Ethnological Studies among the North-West Central Queensland Aborigines. By Walter E. Roth. Pp. xvi + 199, and Plates. (Brisbane: Gregory, 1897.)

THE chief difficulty which an investigator has to surmount in studying the habits and customs of a savage race is their innate suspicion, which often prevents them relating not only the traditions of their tribe, but also their common customs.

Roth claims to have overcome this difficulty by a prolonged residence among the natives of North-West

Central Queensland, and states that it was not until he was fully conversant with their language that he could acquire sufficient confidence from the natives to learn their customs.

As an aid to future explorers, he begins his book with an elementary grammar and vocabulary of the language spoken in the Boullia district: a table is added, comparing the words in common use in adjacent districts.

This race communicates ideas by signs as well as sounds; the origin of the actual manual movements is usually easy to trace, and lucidity is added to the description by illustrations. Social and individual nomenclature among these races is developed to such an extent, that careful study of an admirable chapter devoted to the question is necessary for the reader to fully comprehend that intricate organisation.

Roth describes the food and the method of obtaining and preparing it; the recreations and amusements of the people. Cannibalism, he states, is practised in the Boullia district; but a person is never slain for the purpose of supplying food, nor may any but relatives partake of a corpse.

The last chapter is devoted to descriptions of initiation ceremonies, which are often too gruesome to dwell upon in detail. The book consists of a description of a number of facts; the origin and development of customs is but rarely attempted.

L'Électro-chimie. Production électrolytique des Composés chimiques. By A. Minet. Pp. 167. (Paris: Gauthier-Villars et Fils; Masson & Cie.)

THIS little work is a volume of the well-known "Encyclopédie Scientifique des Aide-Memoire," and is devoted mainly to the industrial applications of electrolysis other than those of which the object is the preparation of metals. The chapter dealing with the electrolysis of solutions of sodium and potassium chlorides, which gives a good account of the more important processes which have been proposed for the preparation of caustic alkalis, hypochlorites and chlorates, may be specially commended. The attempts which have been made to employ electrolysis in purifying and ageing alcoholic liquids, in tanning, and in purifying sugar, are described, as well as a number of minor applications of the electric current.

"Théories de L'Électrolyse" (pp. 175) is another volume of the same series as the above, and by the same author. It gives a sketch of the theory of the voltaic cell, of the constitution of electrolytes and gases, and of osmotic pressure. Electrolytic conductivity and the migration of the ions are also treated at some length. The researches of the author's fellow countrymen are rather fully, though not always clearly, described, the work done in other countries receiving very inadequate treatment.

LETTER TO THE EDITOR.

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Malformed Crabs.

IN your issue of March 10 I observe a most interesting letter from your correspondent, Mr. R. I. Pocock, regarding a malformed specimen of *Cancer pagurus* in the Dover Museum. I have never seen such a remarkable case of malformation in the common edible crab, but in the Robertson Museum here is to be seen a very fine specimen of *Nephrops norvegicus*, having three digits on the right pincer or great claw. The supernumerary digit,