

notice. The classification of the ground-sloths is much more complicated than the one adopted by older writers, the Megalotheriidae being now split up into a number of family groups. Very noteworthy is the inclusion among the Monotremata of an extinct South American family, the Dideilotheriidae, with four generic modifications, as if this be justified it has a most important bearing on former land connections between the southern continents. We confess, however, to a certain amount of hesitation in accepting the determination of these South American fossils until it has been confirmed by a palaeontologist of unquestioned authority. In retaining provisionally the South African Tritylodon among the mammalia, Dr. Trouessart is in accord with opinions lately expressed by Dr. R. Broom.

R. L.

*How to Know Wild Fruits: a Guide to Plants when not in Flower by Means of Fruit and Leaf.* By Maude Gridley Peterson. Pp. xliii+340; illustrated. (New York: The Macmillan Co.; London: Macmillan and Co., Ltd.) Price 6s. 6d. net.

"YE shall know them by their fruits" might well have served as the fore-word to this little volume. It deals only "with those plants which bear attractively coloured fruits," and might, therefore, be classed by the reviewer among that very large class of books which are made to look at rather than for any more serious purpose. The very first chapter, on "Adaptations of Fruits and Seeds for Dispersal and Protection," serves to dispel that notion. It consists only of some half-dozen pages, but those pages are instructive, and, better still, suggestive. Then comes a list of "definitions," few in number, but adequate to a book of these pretensions, especially as it is supplemented by a glossary at the end. "A Guide to the Plant Families Represented" comes next in order, and consists of an analytical table by means of which the several families may be discriminated by the observation of the variations in the character of their fruits. This seems to be carefully compiled, and is, so far as we have seen, accurate, but its value can only be tested by actual use in the field.

In the second table the families and species are grouped according to the colour of their fruits. Thus the monocotyledonous families are arranged according as the colour of the fruits is red, reddish-purple, green, black, or dark-purple, or blue. Of course, this is a highly artificial mode of grouping and one subject to exception, but if these circumstances be borne in mind the table will be found useful.

Coming now to the individual plants, which are all North American, the author gives a pretty full description of each, beginning with the fruit and passing on to the foliage and flowers. These descriptions might have been materially abridged and comparison rendered easier by the omission of unnecessary particles and verbs. In this matter the example of the author's fellow-countryman, Asa Gray, might have been followed. Moreover, they are not always botanically accurate; the "fruit" of the yew, for instance, is only remotely "drupe-like," and is certainly not a "drupe," as it is said to be in the same paragraph. Conversely, the leaves of the yew are really spirally arranged, but appear to be disposed in two planes only.

It would obviously be unfair to treat this book as if it were intended as a botanical text-book, but as a help to the beginner and a means of stimulating observation it may be commended. It is well got up, remarkably free from misprints, appropriately illustrated, and provided with an index of vernacular names and one of the Latin designations of the plants described.

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## LETTERS TO THE EDITOR.

[The Editor does not hold himself responsible for opinions expressed by his correspondents. Neither can he undertake to return, or to correspond with the writers of, rejected manuscripts intended for this or any other part of NATURE. No notice is taken of anonymous communications.]

### The Kangra Earthquake of April 4, 1905.

THERE have been certain papers on Indian geological questions recently published in the *Neues Jahrbuch* and associated *Centralblatt für Mineralogie, Geol. und Pal.* (Stuttgart), in which either the data or the deductions, generally both, have been unsound. In most cases the authorship alone has been sufficient to enable us to separate those papers that are worth careful study from those that are not even worth the time necessary to read. But in the latest production one of the editors of the journal appears as a joint-author, and one wonders consequently whether the papers we have been discarding in India as untrustworthy are, after all, normal or accessory constituents of a periodical which all geologists have regarded hitherto as essential to a working library.

The paper I now refer to appeared in the *Centralblatt* No. 11 (June), entitled "Das Erdbeben im Kangra-Tal (Himalaya) von 4 April 1905," by E. Koken and F. Noetling. The authors take eight pages of text and a map to demonstrate the unusual features of scientific interest shown by the recent earthquake—the time of its occurrence, the remarkable variation in the rate of transmission of the earthquake waves in different directions, the peculiar distribution of the isoseismal lines, and the exceptional shape of the meizoseismal area. The whole of this "scientific" discussion is built on a few newspaper cuttings, in the collection of which the authors have not been sufficiently industrious to escape certain tell-tale misprints which appeared only in the newspapers of the Presidency farthest removed from the earthquake centre. One example will be sufficient to illustrate the care exercised in collecting and checking their data.

The authors on p. 336 refer to a town named Tagarmalli as only very slightly damaged, and they consequently adopt this point, which they determine to be fifty miles from the epicentre, as the maximum extension eastwards of the meizoseismal area. As a matter of fact, no such place as Tagarmalli exists, and no such name appears in any of the gazetteers of India; the most casual attempt at verification would have shown the authors that they were basing their elaborate deductions on a misprint which appeared in one newspaper only. In one of the Lahore papers the names of the two places Nagar and Manali, twelve miles distant from one another in the Kulu valley, became contracted by the printer's devil to Nagarmalli, and in this form it was telegraphed to Bombay (*Times of India*, April 14) and to Calcutta (*Englishman*, April 14); but by the accidental omission of a single Morse's dot the word reached Madras as Tagarmalli (*Madras Mail*, April 15, and telegraphic summary, April 14). Having found the clue to the authors' source of data, we find it easy to explain other equally remarkable statements in the paper. In an earlier part of their paper (p. 334) they refer to the complete destruction of the place Nagar (Naggar), without suspecting that it was one of the roots of their mythical Tagarmalli; but on this occasion they have removed the little capital town of Kulu, and, for purposes of seismological reasoning, have carried it over the snowy range into the Kangra valley. To base a series of scientific deductions on a few newspaper cuttings may satisfy the devotee of precision (*alias* accuracy) in Germany, but to neglect the simple means of verifying their facts provided by the splendid maps of the Punjab, the complete gazetteers, or even the four-penny postal guide obtainable in nearly every village, shows a carelessness that deserves the contempt of every scientific man.

But, after all, it is not the basis of data so much that is at fault, though even the purchase of a few more newspapers would have saved the authors from most of their pitfalls; it is the "scientific" superstructure that is so discreditable. When the authors noticed that the earthquake was recorded by the Bombay seismograph at