

objects which it contains, while the interest and curiosity of the young pupil are further secured by a good drawing of a spider and his web, as well as by an excellent picture of a pair of boots.

This part of the book deals, then, as the author says, solely with ideas of comparison, measurement and counting. The extent to which we get in part i. may be inferred from the last two questions or problems in it:—

“A book cost 3 dimes, a pencil 3 cents, and a blank book 3 nickels. How many cents did all three cost? Count from 1 to 30; from 5 to 100 by fives. Count as high as you can by hundreds.”

Part ii. treats of the elementary operations—addition, subtraction, multiplication, division—and the meaning of fractions (halves, thirds, quarters, &c.) is gradually unfolded during these operations. The pictorial method is continued in this part, but the pictures are of the geometrical kinds that we get by cutting out and folding paper, so that the measurement of simple areas and the nature of an angle are explained to the little learner. Thus, one of the things here learnt by folding is that the sum of the angles of every triangle is two right angles. Near the end of this part, the nature of a decimal is explained, and the extent to which the pupil has progressed may be seen by the following, taken from the last lesson in part ii.:—

“At the rate of 56 miles per hour, how far will a train travel in 5.6 hours? A bookseller paid \$9 $\frac{3}{4}$ for books. How many did he buy if each cost \$ $\frac{3}{8}$?”

Part iii. treats of “elementary operations classified,” that is, the operations of part ii. are treated more in detail and the philosophy of the subject is expounded. Near the end, the nature of ratio and proportion is explained, instruments, such as a two-foot rule, being employed. Among the terminal problems in this part are the following:—

“Express 9 cu. yd. as a decimal of a cord” (from which we conclude that the author does not anticipate an early introduction of a thorough-going metric system into America); “what is the sum of $\frac{2}{3}$, $\frac{3}{5}$, $\frac{7}{8}$ and $\frac{1}{2}$?” The rate of taxation of a city is 1 $\frac{1}{2}$ %. What tax must a citizen pay whose property is assessed at \$4500?”

There are no answers supplied to any of the questions (except in two or three instances) throughout the book; it is, as we have said, a guide to the teacher; the young pupils for whose instruction it is intended are not yet *students*.

Of course, the American coinage, with which the questions deal, would require alterations to render the book suitable to English use; but there is no doubt that the author has very skilfully conceived the nature of an effective process of teaching young children, and we think that the exact following of his course and method would prove to be productive of excellent results.

OUR BOOK SHELF.

The Trees, Shrubs and Woody Climbers of the Bombay Presidency. By W. A. Talbot, F.L.S. Second Edition. Pp. xxv + 385. (Bombay, 1902.)

WHEN Sir Joseph Hooker's “*Flora of British India*,” now completed, was undertaken, one of its main objects was stated to be to furnish a basis on which local floras could be constructed. India is so vast, its climatic features are

so varied, the economic requirements of its several provinces so diverse, that a general work like that of Hooker needs to be supplemented by local floras in which the special requirements of particular districts can be fulfilled. There is gratifying evidence to show that these requirements are in course of being supplied. There is, for instance, the “*Forest Flora of the North-West*,” by Sir Dietrich Brandis; Sir George King is engaged on the “*Flora of the Malay Peninsula*”; the “*Flora of Ceylon*” was completed by the late Dr. Trimen; and General Collett's book on the plants of the Simla district has just been published. We might cite many similar works from the pens of Prain, Clarke, Duthie, Watt, Kurz and others, but enough has been said to show that Sir Joseph Hooker's aim is in process of fulfilment, and that the splendid botanical heritage handed down to us by Roxburgh, Wallich, Wight, Griffith and others is in no danger of being squandered, but is being utilised and extended by the labours of the present race of botanists. When we bring to mind the fact that instruction in botany, at any rate in systematic botany, no longer forms part of the curriculum in the education of medical students, and that complaints have been made as to the lack of interest felt in the subject by the majority of forest officers, this evidence of substantial progress may at least be adduced as a set-off.

The work before us is another instance of the same kind. In form it is modelled upon Hooker's “*Flora*,” in substance it contains a “fairly correct” list of the indigenous ligneous vegetation of the Presidency, together with additional matter relating to distribution, bark, woods and economic products, along with a large number of vernacular names.

The book is in its second edition, and hopes are thrown out that the “next edition” will expand into a handy Bombay forest flora. Actual use in the field or forest, or even in the herbarium, is needed to enable the reviewer to form a complete estimate of the value of such a work. It must suffice to say that the author's method is good, and that it bears the impress of care and accuracy in its production.

La Géologie générale. By Stanislas Meunier, Professeur de Géologie au Muséum d'Histoire Naturelle. Pp. vi + 336; 42 woodcuts. (Paris: Alcan, 1903) Price 6 francs.

In this volume, Prof. Stanislas Meunier undertakes, for the International Scientific Library, a presentation of those branches of geological science not already dealt with in his “*Experimental Geology*” and his “*Comparative Geology*,” published in the same series.

In the introduction to the book, the author defines the ideas which have successively dominated geological theory during the nineteenth century as (1) the cataclysmal views of Cuvier; (2) the uniformitarianism of Lyell; (3) the “actualism” of Constant Prévost; and (4) the “activism,” which he regards as the distinctive feature of modern geological thought.

In conformity with this latter point of view, the author then proceeds to discuss the three great causes of change in the earth's crust, namely, the central heat of the globe, the effects of pressure and the influence of the sun's heat. Pursuing this deductive, rather than inductive, mode of treating his subject, the questions next considered are the flexible earth's crust, volcanoes, the action of subterranean and superficial waters, the sea, glaciers, the atmosphere, and vital action. In dealing with each of these subjects, the originality of the author is everywhere manifest, the examples and illustrations chosen being, for the most part, new, and often of a very striking character.

In the second part of the work, which is entitled “*Comparative Physiology of Successive Geological Epochs*,” the effect of the several agencies enumerated