

street and canal scenes, and explains at some length many of the more important ceremonies by means of which Siamese Buddhists make the amount of "merit" necessary for the bettering of their position hereafter, and he gives a short account of the Buddhism of the country. The author makes some interesting observations on education, and gives an attractive picture of the children with whom his duties brought him in contact. He does not go far beyond the capital, and the scattered remarks about the interior do not enlighten the reader much as to the commercial aspects of the country. Politics have also been rigorously excluded. On the whole there is not much which may not be found in Turpin, Crawford, Bowring, or Alabaster, or in the recent writings of Captain Gerini. The author does not, however, pretend to an entirely original or exhaustive treatment of the subject. His aim has rather been a chatty and popular account of the life and ideas of the ordinary people, as they present themselves to the observant resident of Bangkok. The Far East is daily coming nearer, and becoming more intelligible, to the Western reader, and the present work is one which, in our opinion, distinctly helps to bridge the gulf which yet lies between them.

The illustrations, which, it is no discredit to the author to say, form the chief feature of the book, are by Mr. Norbury, another old Bangkok resident. Some of these, especially the full-page drawings towards the end of the book, are quite charming, and give some characteristic scenes with a rare combination of fidelity and artistic effect.

*The West Australian Settler's Guide and Farmer's Handbook.* (Perth, W.A.: Wigg and Son, 1897-98.)

WEST Australia is at the present time best known to us by its gold mines; the real importance of this vast and almost unoccupied territory must, however, be determined by its capability of supporting in the future a large population, and hence the agricultural capabilities of the country become an extremely important factor in any schemes for its development. The Handbook before us is issued by the Agricultural Department of the Colony; its object is to present a picture of the agricultural capabilities of various districts, and to advise intending settlers as to their best course of action. It deals chiefly with the south-western portion of the Colony, a district enjoying a better and more uniform rainfall than is generally met with in Australia, and the general fertility of which is vouched for by the occurrence of large areas of heavily-timbered land. The forests of West Australia are said to occupy more than forty million acres; the wood from them has already been employed in paving London streets. Large areas of the country appear to be especially adapted for vine culture. Part i. of the Handbook describes the agricultural areas open for selection. Part ii. contains general instructions for settlers. Part iii. deals with the natural grasses and weeds, and with various imported crops. Part iv. is devoted to sheep husbandry. Part v. is a general treatise on soils and manures, without much special reference to Australia. The whole publication is freely illustrated. The photographs of the forest trees are very striking. The maps are bad, and quite insufficient for the purpose. The Handbook has evidently been hastily put together, and its value is often marred by the want of a clear arrangement of the subjects discussed. R. W.

*Die Gattung Cyclamen L. eine systematische und biologische Monographie.* By Dr. F. Hildebrand. Pp. 190, with 6 plates. (Jena: Gustav Fischer, 1898.)

LIVING plants have served Dr. Hildebrand as the basis of his careful study of the genus *Cyclamen*, and herbaria have afforded additional material. The result is a most thorough monograph of the genus, the thirteen species of which have been studied in great minuteness. Eighty

pages are given to the description of these, and the remaining portion to a general review of the genus. The book is extraordinarily free from theory; indeed, it is a storehouse of facts.

One species of this genus, *C. persicum*, has recently been brought forward as affording a good instance of the gradual accumulation of small variations, which has yielded the many forms in cultivation. For this reason it has a special interest; and Dr. Hildebrand's assertion of the variability of the wild plants (p. 166), and his recognition of no hybridisation of this species, come as opportune remarks. Variation in the leaf has particularly attracted the author's attention; and he notices, too, that there can be traced no connection (p. 172) between the variability of the foliar and floral organs.

Of biological interest are such statements as the following: that the corms have for a protection some poisonous substance (p. 92); that the leaves have no character in them which will definitely support Stahl's theory of the relation of their shape to rainfall (p. 110); that the pollen, at first sticky, becomes dry and powdery (p. 132); that ants appear to aid in the dispersal of the seeds (p. 142); and that the corm begins to form very early in germination (p. 11). From these the general trend of the book may be judged; but, in addition, anatomy, teratology, distribution, and the relation of the species to their habitat, the rest of the seed, age of the plant at flowering, colour of the leaves, &c., find a place. The whole results in a most careful work, which, unfortunately, wants a good index. I. H. B.

*An Arithmetic for Schools.* By S. L. Loney, M.A. (London: Macmillan and Co., Ltd., 1898.)

THIS is a comprehensive text-book clearly written and well arranged. There is a useful chapter on abridged methods and approximations, and a note (in the appendix) on the metric system. Compound interest is, very properly, done entirely by decimals. The examples are numerous, sensibly chosen, and carefully graduated. The term "concrete number" is objectionable; so is the statement "1 lb. of sugar = 2*d.*" in the explanation of the chain rule. In compound proportion too much of the old-fashioned paraphernalia has been retained; and we think that too much attention has been paid to the conversion of vulgar fractions into recurring decimals, and *vice versa*. It would be a good thing if recurring decimals could be eliminated from all elementary examinations in arithmetic; they are of no practical use, and the tiresome calculations connected with them help to perpetuate the English prejudice against the metric system. It may be worth noticing that in Chapter v. the term "power" and the index notation are apparently introduced without previous explanation. In some cases it would be well to give not only an explanatory working of an example, but also the actual computation, arranged in proper form. It is true that this is done in many cases; but there are many others where the working is decidedly clumsy, owing to the addition of explanatory matter. On the whole it may be said that this work, while not specially distinguished by novelty of treatment, deserves to rank with the best of its class. G. B. M.

*Navigazione Aerea.* By Guglielmo N. Da Pra. Pp. 73, with 18 woodcuts and 6 plates. (Milan: Ulrico Hoepli, 1898.)

THIS is a critical examination of the various conditions which must be satisfied by a flying machine, together with designs of proposed arrangements of aeroplanes to be worked by means of benzene motors symmetrically arranged.

On the principle that "an ounce of practice is worth a pound of theory," it will be interesting to see how far Signor Da Pra's predictions as to the form of the flying machine of the future are confirmed by future experiments. G. H. B.