

cises. Altogether the book is one that the teacher may use with great advantage and in the certainty of getting much help in devising useful courses for his classes.

(3) The third book is by Prof. Wheeler who was long director of the Agricultural Experiment Station of Rhode Island, and then became chemical expert to the American Agricultural Chemical Company. His book deals exclusively with manures and fertilisers, and is therefore more specialised than the volume just referred to. A very interesting account is given of the subject, indeed, we know of no American publication that deals better with it. The author has rightly made liberal use of the admirable series of investigations conducted at Rhode Island during the term of his directorship, and in particular goes very fully into the question of liming. Some remarkable observations were begun in 1890 at Rhode Island and it was found that sulphate of ammonia was highly toxic on certain soils, even in the first season of its application. Experiments soon showed that this effect was due to the production of acid conditions in the soil, which could be corrected by sodium carbonate, potassium carbonate, calcium carbonate, but not by chlorides or sulphates. Liming was therefore indicated as the proper method of dealing with the trouble. These observations appear to have been the first that were made on the subject; and they lead to a very complete study of the method of correcting acidity arising from the use of ammonium sulphate.

A further interesting feature is the prominence given to the use of seaweed as a manure. This subject attracts periodical attention, but very little progress has been made in the direction of utilisation, in spite of the enormous possibilities it seems to present. And yet the amount of fertilising material thrown up on our shores in the course of a year is enormous.

A pleasant feature of the book is the great prominence given to European work, Rothamsted experiments in particular coming in for a great amount of attention.

The book is very interesting and will be of considerable value to teachers and students of the subject. E. J. RUSSELL.

#### OUR BOOKSHELF.

*Morocco the Piquant, or Life in Sunset Land.* By G. E. Holt. Pp. xi+242. (London: Wm. Heinemann, 1914.) Price 6s. net.

MR. HOLT, who seems to have held for about six years the post of American vice- and deputy-consul-general at Tangier, enjoyed facilities of exploring the interior of Morocco denied to European

diplomatists who exercise a more active and less disinterested influence on the affairs of that distracted country. The note of his book is the strange conflict of Oriental and Western culture so close to Europe. He gives in naïve fashion and with a breezy style a sketch of the cosmopolitan population of Tangier, where he is reminded everywhere of the Arabian Nights. He was able to visit that strange Alsatia within ten miles of Tangier, held by the turbulent Angheras; he interviewed the bandit Raisuli, whom the Spaniards, it is said, are now ready to take into their service, at his refuge Arzila.

Perhaps the best part of the book is the chapter describing the Djinn, or evil spirits, the primitive animistic belief over which Islam is only a veneer, and his visit to a peasant household, an industrious farmer and his capable wife, good specimens of the fine material in the population, and capable of regenerating this harassed land if only it were subjected to a decently efficient Government. An energetic observer, with his American ideas of hustle and the superiority of Western industrialism is not the best authority on a primitive culture like that of Morocco, and his observations do not go far beneath the surface. But the facts of the present system and the notes on popular superstitions will interest students of politics and folklore. In face of the recent defeat of the Senoussi by the Italians, we can scarcely accept the prediction that Europe is menaced by a Mohammedan rising in North Africa.

*Elementary Logic.* By A. Sidgwick. Pp. x+250. (Cambridge University Press, 1914.) Price 3s. 6d. net.

AN excellent manual, combining an adequate account of the old logic with a good exposition of modern developments. As becomes a logician, Mr. Sidgwick divides his book into parts and smaller sections, with admirable system and sequence. Part i. deals with the syllogism in all its forms, also with induction and fallacies, in which matters the author follows Mill for the most part. Interesting illustrations are chosen, and the treatment renders the text as readable as circumstances allow. It is admittedly impossible to make "Barbara" and her associates look anything but dull, however they are dressed up; but logic (as Browning said of his own poetry) is "not a substitute for dominoes," so the student will no doubt struggle through. Mr. Sidgwick gets the dull part disposed of as quickly as thoroughness will allow. In Part ii. we reach the more interesting and "live" part. The modern point of view is adopted, and formal logic is shown to establish only validity and not truth, because there is always something assumed. Further, classes are man-made, not nature-made; and, as we cannot say all that can be said about S, S may be in one class in certain of its relations, and in another when others of its aspects are being considered. Briefly, truth is relative to purpose. And proof is never coercive. The new logical method is modest. It looks forward with confidence, however, to a "great increase in the