physics in another disguise. Although a scientific atomic theory, as distinguished from the merely poetic efforts of the Greeks, appeared early in the seventeenth century, the chemical atomic theory on which the science is based is unquestionably the work of John Dalton. The story of Dalton has been told before, but the present small memoir may be welcomed as an interesting account which should find favour with students and the general reader.

Very few slips have been noticed. Garnett was Davy's predecessor at the Royal Institution; "Cruickshanks" (p. 28) should be "Cruickshank"; Thenard wrote his own name both as "Thenard" and as "Thénard"—the first was used by his contemporaries, but the second form, used by Mr. Neville-Polley, seems to be common now. It is scarcely correct to describe Thomas Thomson as the "great friend" of Dalton, for at the time of his visit to Manchester to get the account of the origin of the atomic theory accepted prior to Roscoe and Harden's investigations, Thomson was not personally acquainted with its author. The statement that Higgins "assigned the same weight to all atoms" was refuted by Meldrum, whose work should have been mentioned.

Geological Survey of Nigeria. Bulletin No. 1. The Geology of the Plateau Tin Fields. By Dr. J. D. Falconer. Pp. 55+x plates. (Nigeria: Geological Survey of Nigeria, 1921.) 10*s.* net.

IN the first Bulletin of the Nigerian Geological Survey Dr. Falconer has given a useful account of the tin-bearing region of the Protectorate. Ancient schists and gneissose granites have been invaded by newer granites, followed by emanations rich in tin and fluorine but not in boron. Long afterwards, when the country had been worn down by atmospheric agencies, it was covered by the "Fluvio-marine Series"—volcanic rocks, and river gravels often rich in tin. Still later these were succeeded by younger volcanic rocks which have in some cases capped and preserved the older sediments. The alluvial beds that are still in process of formation are, however, the chief source of tin. Their investigation not only furnishes information on the occurrence of alluvial tin, but throws light on the problems of river erosion and deposition. The publication under notice, which is illustrated by excellent photographs of scenery and micro-sections as well as by maps, will be welcomed both by geologists and by mining engineers, though some analyses of the chief rock-types would have been a useful addition.

It is worth consideration whether it would not be possible to supplement a scientific publication like this by a non-technical pamphlet, clearly but simply written without assuming any previous knowledge of the subject. It should be provided with a general geological map, typical views, and large-scale maps and sections, and the meaning of these should be carefully explained. Such publications would go far to promote a more general interest in the study of the rocks and the minerals they contain.

J. W. EVANS.

The Land of Goshen and the Exodus. By Sir Hanbury Brown. Third edition. Pp. 189. (London: Edward Stanford, Ltd., 1919.) 7*s.* 6*d.* net.

THIS extraordinarily interesting account of the bondage of Israel in Egypt and their exodus therefrom, written with the erudition of the scholar and the charm of the non-professional, is issued a third time. Sir Hanbury Brown advocates the view that the land of Goshen lay immediately west of the present Suez Ship Canal, that the western arm of the Red Sea extended at the time of the exodus over the Bitter Lakes and Lake Timsah, almost as far as Tel el Maskhûta (Pithom of the Bible), and that the crossing of the Red Sea took place between Lake Timsah and the Bitter Lakes, below Tussum, near Serapeum. In the new edition he contends that the term "Yam Sûph" refers to the expanse of water now called the Red Sea, in opposition to Sayce's view which limits the term to the Gulf of Akabah, namely, the arm to the east of the Sinai peninsula. The author also identifies the present Ayûn Musa as the Elim of the exodus: this, like many other views advanced by him, is rendered eminently reasonable by his advocacy. The last chapter, entitled "Modern Events in Goshen," contains illuminating parallels from modern history to the events associated with the sojourn of Israel in Egypt, including an interesting reference to the attack on the Suez Canal during the recent war.

A Farmer's Handbook: A Manual for Students and Beginners. By R. C. Andrew. Pp. xvi+126+xliv plates. (London: G. Bell and Sons, Ltd., 1920.) 6*s.* net.

TEACHERS of agriculture would do well to take notice of this little book. It is written by a man who has had practical experience both of teaching and of farming and knows the difficulties that beset the student entering on a new subject. It is confined to the arable side of farming, and deals with the implements and processes necessary for ordinary root and cereal crops. Many common important processes are included which often miss the text-book writer's attention, such as methods of tying corn, sharpening a scythe, making a potato clamp, etc., and there is much information that is usually obtained only after painful and sometimes costly experience. The little book may be commended to the growing body of men and women interested in the cultivation of a patch of land who find themselves more and more called upon to do for themselves what was formerly done by the skilled odd man.

E. J. R.