

of calcium carbonate (p. 20). Ambiguities have arisen, probably as a result of brevity, on p. 6 (line 24, "reverse process" and line 39, "equal energy"), p. 24, "negative pressure," and p. 56 (line 5, "general rule"). Modifications, leading to greater precision, might also be made in figs. 3 and 6. Apart from these and other debatable matters, a few slips should be corrected in future editions (p. 17, "water" for, presumably, "winter"; p. 18, triple point of water + 0.007° C.).

The chapters following the general exposition deal with the applications of the principles outlined. They are concerned with the origin and composition of the igneous rocks, the processes of metamorphism and weathering, and the formation of salt-deposits and ore-bodies. A chapter is also devoted to the consideration of refractory materials from the point of view of the stability-relations of silica, lime, alumina, etc. A final chapter on colloids in geology is obviously marked by restraint; while the Author is doubtless right in adopting a cautious attitude, a reference to Dr. H. C. Boydell's recent paper¹ might have been of interest to students.

Altogether, in view of the extent and difficulties of the subject, the Author deserves our thanks for this book, which furnishes students with a large quantity of information for the moderate price of 15s.

CORRESPONDENCE.

A RESCUED COLLECTION.

SIR,—As illustrating how labours and valuable material have been lost in the past, it may interest your older readers to know that the almost unique collection of Chalk fossils made by the late James Fox, of Stamford Hill, N., part of which was exhibited at the London Geologists' Association *Conversazione* on 4th November, 1892, has been rescued and secured from oblivion.

Last April a kind friend drew my attention to the fact that there was a "very fine collection of Chalk fossils" at a certain antique furniture dealer's shop in East London. It had been lying there for nearly three years and *had twice before been offered for sale* in London sale-rooms, but had not found a sufficiently high bidder. Fortunately I was able to acquire it.

The collection was made chiefly from the *Micraster cor-anguinum* zone at Northfleet, Charlton, and Lewes. (The Charlton pits were worked when I resided in Woolwich 1877-83, but were from then closed down owing to building operations.) The introduction of mechanical quarriers makes it increasingly difficult to obtain perfect specimens. It is impossible to conceive greater skill in developing the beautiful Corals, Cidaridæ, Asteroideæ, *Spondylus spinosus*, and fish remains, as well as the collection in general.

¹ *Trans. Inst. Min. and Metall.*, vol. 34, 1925.

The various specimens have now found final resting-places in the British Museum, the Universities of Glasgow, Liverpool, and Reading, and Eastgate House Museum, Rochester.

Yours faithfully,
G. E. DIBLEY.

THE CARLISLE BASIN.

SIR,—The courteous criticism by Messrs. Dixon and Trotter of my review of the Carlisle Memoir (GEOLOGICAL MAGAZINE, Vol. LXIII, 1926, pp. 377–9) states the remaining issue clearly. I am glad that they reject the conclusion that the gypseous shales at Abbeytown are a series not elsewhere seen, which provoked my paper (GEOLOGICAL MAGAZINE, 1915, pp. 241–9), as it seemed to have a misleading influence on the interpretation of both the Solway Basin and the Isle of Man. Messrs. Dixon and Trotter avoid the correlation of the gypseous shales at Abbeytown with those south of Carlisle by explaining them as the thickened and changed extension of the Stanwix Marls. Certain resemblances of the sandstone at the bottom of the Abbeytown bore and the Kirklington Sandstone had forced consideration of that possibility on Holmes and myself. Holmes scouted that idea. The beds at Abbeytown are shales with many layers of gypsum, and one occurrence of salt, and no limestone, and are 746 feet thick. The Stanwix beds are marls with thin beds of limestone without either gypsum or salt, and according to Holmes are “extremely thin”. The Survey Carlisle Memoir (1926, pp. 23, 28) reminds us that in these beds colour is an unreliable guide, but it is not without value, though less important than chemical composition, in which the Abbeytown shales and Stanwix Marls are strikingly different. The evidence for Holmes’ Dalton Fault may be small, but that for the Cummersdale Fault appears even less convincing. I followed Holmes in his interpretation of the facts of the Orton bore, but its record of 1781 is too indefinite for much weight to be placed on it. The dismissal of Holmes’ Upper Gypseous Shale is an important advance; but the tradition left by Holmes’ view will probably delay settlement of the further issue until another bore reveals more evidence. Meanwhile I regard the general structure of the Solway Basin as fitting the correlation of the gypseous shales at Abbeytown and Carlisle in spite of the more varied colours found at Abbeytown.

J. W. GREGORY.

18th May, 1927.
