

the very regular columnar ranges, to which Mr. Mallet's theory relates, have, one and all, evidently cooled from the bottom; the upper portions of the basaltic beds being nearly amorphous, or, if prismatic at all, composed of very imperfect groups of prisms.

Apart, indeed, from Mr. Mallet's ideal columns, I will state, as the result of my own observations, that in every natural section of a basaltic columnar range, the plane separating the portion in which cooling probably began below from that in which cooling began at the upper surface, is, as a general rule, horizontal; the two portions being as distinct as is the architrave in a Greek temple from the supporting columns (as may be seen in any good drawing of Staffa, or of the basaltic columnar ranges of the Vivarais, Auvergne, etc.). The upper portion is, indeed, generally amorphous, or nearly so, and so decidedly separated from the lower regular columnar range, as to have been usually mistaken for a separate lava-flow of later formation. If Mr. Mallet's notion could be realized anywhere, it would be in the horizontal columns of a vertical dyke, formed by contemporaneous cooling from both of its sides. I will, however, venture to say that no instance can be produced of a single continuous column passing unbroken, from side to side, of any dyke. Can Mr. Mallet produce any example of such a fact from his own observations? The columns, on the contrary, always terminate towards the centre of the dyke, either in a seam of amorphous lava, or an interval filled with rubble (and this Mr. Mallet himself admits, as in the former instance, p. 183), or sometimes they are separated by a still more recent vein of lava. Finally, I leave it to all geologists interested in the question, to examine the columns in the possession of their Society, and form their own opinion upon the point in dispute between Mr. Mallet and myself.

It is of the more importance from its having an indirect bearing on the main question as to the influence of concretion, no less than of simple contraction, upon the production of the columns themselves: a question upon which, likewise, I have the misfortune to differ with Mr. R. Mallet, who will not admit of any concretionary action at all—even, for example, in the case of the nearly globular articulations of the prisms of the Cheese-Cellar at Borrich. But upon this point, I will not here enlarge.

COBHAM, November 3rd, 1875.

G. POULETT SCROPE.

ON THE PRESENCE OF THE GENERA *PLICATOCRINUS*, *COTYLEDERMA* AND *SOLANOCRINUS* IN BRITISH STRATA.

SIR,—At the British Association Meeting a few weeks since, F. Longe, Esq., F.G.S., of Cheltenham, handed to me a very perfect example of the interesting but little known Crinoid *Plicatocrinus* which had been found by him on the coast near Bridport. He informed me he had shown it to Dr. Wright, who had referred it to the family *Cirripedia*, to which at first sight it bears some resemblance.

I explained to Mr. Longe that this was incorrect, as it belonged to the *Crinoidea*, at which group Dr. Wright had so long been working, and that I was already possessed of several of the above genera

and species from the same geological horizon as those previously found on the Continent. A notice of these appears in my paper on "Abnormal Conditions," etc., p. 480 of the *Journal of the Geol. Society* for 1867. Mr. Longe with much liberality presented me with the specimen.

After this I showed it to Dr. Wright, and pointed out to him the zoological position that had been assigned to it by continental geologists, and in reply to his inquiries informed him that the best figures and description would be found in a paper by Dr. Deslongchamps of Caen.

Dr. Wright lost no time in referring to Dr. Deslongchamps' description, for in a note to me on another subject, he remarks: "As I am always on the look out for any new facts to chronicle in relation to my own subject, I sent a short notice of Mr. Longe's discovery to the *GEOLOGICAL MAGAZINE*, and herewith inclose you a separate text." In this he quotes the history of *Cotylederma* as given by Dr. Deslongchamps, but makes no reference to the conversation I had with him respecting it. At this time I had no opportunity of seeing Dr. Deslongchamps' memoir, or comparing the specimen with those in my museum. On my return home I found it belonged to the genus *Plicatocrinus*, and not to *Cotylederma* as I had first supposed. Had I been aware Dr. Wright intended sending a notice of the specimen for publication, I could at once have corrected the error.

From his remark in the last paragraph that "it is the first English specimen of this curious form of the Liassic sea which I have yet seen from our Lias beds," he does not appear to be aware of its previous discovery by myself, though on one occasion, if I mistake not, I called his attention to examples in my museum, where they have been publicly exhibited.

I took with me to the Bristol Meeting a beautiful specimen of the genus *Solanocrinus* I have lately found in Oolitic strata, and now first recorded as a British genus, but withheld a notice of it in order to have drawings prepared of Mr. Longe's *Plicatocrinus*.

BATH, Oct. 25, 1875.

CHARLES MOORE.

OBITUARY.

WILLIAM SANDERS, F.R.S.

Death has removed another of the small band of distinguished geologists that commenced their career when the science they cultivated and elucidated was yet in its infancy. The late Mr. William Sanders, F.R.S., was a native of Bristol, and for upwards of forty years of his life was intimately associated with the most distinguished names that have enriched geological science.

He devoted his life to the study of the physical structure of the Bristol area, and early in his scientific career was the friend and companion of Prof. Phillips in his Geological Survey of North Devon and Cornwall, which occupied some years. His chief labour,