

its intermarginal scuta to a new genus, which I call *Digerrhum*. The last two in their rudimental fifth pair of sternals, resemble many *Pleurodira*, and cannot be distinguished from the genus *Podocnemis* now living in the Amazon."

In this paragraph I have made the references adopted by Rütimeyer, Lydekker and Boulenger, but I did not use the name *Pleurosternum* for the *Pl. Bullockii*. Believing that the *Pl. concinnum* represented that genus, I removed the *Pl. Bullockii* from it. It now remains to ascertain the characters of the *Pleurosternum concinnum*, since no reference is made to it by the authors of the paper on which I am now commenting, but who regard the *Pl. Bullockii* as typical of the genus.

M. Dollo well remarks (September Number) that the absence of dermal sutures cannot alone place a genus of Tortoises in a separate family from forms which possess such sutures. He regards *Erquilenesia* as most resembling *Euclastes*, but not to belong to the Propleuridæ. But I think *Euclastes* is one of that group, and I suspect that Dollo's characters of the skull define the group better than the number of costal bones, which will however distinguish the genera.

E. D. COPE.

ORIGIN OF CERTAIN BANDED GNEISSES.

SIR.—Mr. Teall's paper on the origin of certain banded gneisses (p. 484) is a contribution of the utmost value to the discussion of a very difficult subject. But, as I am responsible for another theory concerning these gneisses, may I be allowed to say, that though I admit the importance of the hypothesis, I still see great difficulties in the way of accepting it. These gneisses of the Lizard must not be regarded alone; a hypothesis which might alleviate our difficulties here (and they are undoubtedly great) might increase them elsewhere—and thus, did I assign an igneous origin to all the crystalline rocks south of St. Keverne, I should find it difficult to know where to stop in applying the explanation to other regions. Moreover, if we are to explain these banded gneisses as the rolling or crushing out of a complex of igneous rocks, not only must the flexibility of the rocks have been very great, but also this complex originally must have been a very intricate one. Now I have had a fairly large experience in the habits of igneous rocks, and, so far as this goes, such complications as would be required here are both rare in occurrence and limited in extent. Yet at the Lizard the banded series is of considerable thickness, and can be traced along the coast for full two miles. I admit, however, that when I wrote my two papers, I sometimes failed to distinguish between structures significant of original constitution and those due to subsequent mechanical action, for our knowledge of the latter is of very recent date; but to what extent I will not venture to say until I can again examine the whole district. This I hope to do, but for various reasons must defer the pleasure for a time. Probably it will be some years before we can fairly determine the claims of conflicting hypotheses; meanwhile it is well for science that Mr. Teall has advanced one with so much moderation in statement, and clearness in reasoning. Perhaps

one day he may claim me as a thorough-going convert; but at present I anticipate that it will be my ultimate fate here, as in other things, to maintain that truth lies between opposite extremes.

As I am writing, I may as well briefly notice another criticism on some work of mine in the south-west. In the Transactions of the Devonshire Association a paper has recently appeared (p. 349), advocating the old view of a gradual transition between the slaty and the crystalline series in the Start and Bolt Head districts. As the writer has "to confess to much ignorance as to the methods and results of microscopic research," and the question is one in which such methods are essential in order to distinguish real differences, and avoid being misled by superficial resemblances, I cannot admit that he is qualified to investigate the subject, or waste time by discussing it with him, and will only say, that, though since I wrote the paper I have frequently examined my specimens and slides, I have seen no reason to alter my opinion as to the separateness of the two groups of rocks. Moreover, a paper will shortly appear in the Quarterly Journal of the Geological Society, by a careful observer in the field and worker with the microscope, in which much additional evidence is brought forward in favour of my view. It would be thought strange if any one were to enter into a dispute as to the interpretation of a corrupt passage in a chorus of a tragedy of *Æschylus*, without a preliminary study of the niceties of the Greek language; yet this is the course which some persons follow in petrology, and seem to think that thereby they are doing a service to science.

T. G. BONNEY.

OBITUARY.

REV. W. S. SYMONDS, M.A., F.G.S.

BORN 1818; DIED 1887.

Forty years ago, the promotion of Natural Science throughout the country was mainly entrusted to the agency of the various local Field Clubs and Natural History Societies, amongst the most active and useful of which may be mentioned the Malvern Natural History Field Club, the Woolhope Naturalists' Field Club, and the Cotteswold Club. It was in the districts over which these clubs held sway that the subject of our present notice passed the best years of his life and carried on those geological labours with which his name will always stand associated.

Mr. Symonds was born at Hereford in 1818, being the son of William Symonds, Esq., of Elsdon, Herefordshire. After passing through his school-days with Mr. Allen at Cheltenham, and reading with the Rev. J. P. Sill, he was sent to Christ's College, Cambridge, where Sedgwick was then in the height of his popularity as a geological lecturer. He took his degree in 1842, and in 1843 he was appointed Curate of Offenham, near Evesham, where he became acquainted with Mr. Hugh Strickland, from whom he received many of his first lessons in Natural History. In 1845 he was presented to the Rectory of Pendock, near Tewkesbury.