specimen was obtained. The author desires to return thanks to Prof. J. Dobbie, of the University College of North Wales, Bangor, for the opportunity of describing these specimens.

4. "On *Thecospondylus Daviesi*, Seeley, with some Remarks on the Classification of the Dinosauria." By Prof. H. G. Seeley, F.R.S., F.G.S.

The author described the anterior third of a vertebra from the Wealden, which was recognized by Mr. Davies as the cervical vertebra of an animal allied to the genus *Cœlurus*, Marsh. The only European genus hitherto described in which the vertebræ are similarly elongated, compressed, and enveloped in a dense external film of bone is that indicated by the sacrum, named *Thecospondylus Horneri*, whose vertebræ are about 11 centimetres long, whilst the cervical vertebræ now under discussion were 9 centimetres long when complete. The specimen has lost the prezygapophyses and cervical ribs. If these were restored, they would probably approximate in shape to those of *Cœlurus fragilis*.

The author gave an outline-restoration. The points of resemblance were chiefly the elongated form, lateral compression of centrum and neural arch, inclined articular face of centrum, mode of attachment of the ribs, the convex external surface of the neural arch, almost total suppression of the neural spine, and the thin texture of the bone. But this affinity does not amount to generic identity, and he indicates the points of difference. In estimating the resemblance to *Thecospondylus* he regards the thinness of the investing layer of bone, the smoothness of its internal surface, and the elongation and lateral compression of the vertebræ, and a certain general approximation in form; the most remarkable difference is the absence from the cast of *Thecospondylus Horneri* of indications of films of bone, or evidence of internal plates, such as are seen in the present specimen. He observed that Prof. Marsh regards *Cœlurus fragilis* as a generalized Sauropsid, with more resemblance to Dinosaurs than to Pterodactyles.

Professor Marsh has formed an Order, Sauropoda, which includes *Cetiosaurus* and *Ornithopsis*. The author remarks that he had already suggested Cetiosauria as separable from the rest of the Dinosaurs. When an additional Order is instituted for animals with cavernous or pneumatic vertebræ, the Theropoda of Marsh, under which *Cœlurus* is grouped, it becomes necessary, in order to determine the systematic position of *Thecospondylus*, to review its relations. The author would unite Sauropoda with Theropoda into one Order, the Saurischia, whose pneumatic skeleton is an approximation towards Ornithosaurs and Birds.

CORRESPONDENCE.

CLASSIFICATION OF THE DINOSAURIA.

Sir,—Will you allow me to state that I did not forward to the Geological Magazine the abstracts of my British Association papers printed in the December Number, pp. 561–563, and that no proof of those abstracts was submitted to me; so that I am not responsible

for the publication. In the paper on the classification of the Dinosauria, I do not adopt the names given on p. 562; but use the name *Ornithischia* for the order of which Omosaurus is an example, there named Omosauria; while the name *Saurischia* is used for the order comprising allies of Cetiosaurus, there named Cetiosauria. I shall be glad if this erratum is corrected on p. 562, so that the names which appear there may not be quoted, and may be considered not to have been published.

The Vine, Sevenoaks, *Dec.* 3, 1887. H. G. Seeley.

DIMETIAN OF ST. DAVIDS.

Sir,—Mr. Mellard Reade in his paper "On the Dimetian of St. Davids" does not state whether the rock which he found included in the "Dimetian," and which he calls a "green shale," has been proved to be such by microscopic examination. Will he kindly supply the omission; because, without such an assurance, his proof of the intrusive character of the "Dimetian" has no more validity than an arch without a keystone. T. G. Bonney.

PROF. BONNEY ON BANDED GNEISSES AND THE METAMORPHIC ROCKS OF SOUTH DEVON.

Sir,—Would you kindly allow me space for reply to Professor Bonney's letter in your issue for December, on the above subjects, more especially the latter, which directly affects myself. This portion of his letter forms a marked contrast to the other, and at the outset I beg to protest against its style and tone, which I shall not condescend to imitate in this reply.

It is possible or even probable that I may be wrong in my interpretation of these South Devon rocks, and if so, on further and better proof I shall be as happy in the opposite conclusion, as I earnestly trust that I follow science or truth for its own sake.

With regard to the use of the microscope in geology, let me respectfully remind Prof. Bonney that it is not everything. It so happens that I too have a stake in the "banded gneisses" of the Lizard district, and my field-work there showed me that the whole of his "granulitic" group of schists were rocks of true igneous origin, a fact forced upon me without the aid of the microscope; and further, that the other schists in which the Professor describes current-bedding and ripple-drift, etc., etc., I strongly suspected to have had also an igneous origin, and these appearances due to very different causes, facts which have since been corroborated by a high authority. So much for the use and non-use of the microscope, an instrument in research which I do not undervalue, and which I mean to become better acquainted with.

It is, however, against the tone of the Professor's letter that I complain, and I would invite him (and the rest of your interested readers) to compare the portion of it relating to myself with the last paragraph of his own article in "Nature" for November 10th.

59, Fleet Street, Torquay, *Dec.* 15, 1887. Alex. Somervail.