

cast of its roddings, those of the *Diplacanthus* of the Lower Old Red Sandstone described in pages 84 and 85 of the present volume, and figured in Plate VIII., fig. 2, except that it was proportionally stouter, and traversed at its base by lines running counter to the striæ that furrow it longitudinally. Of the other organisms of Balruddery I cannot pretend to speak with any degree of certainty. Some of them seem to have belonged to the *Radiata*; some are of so doubtful a character that it can scarce be determined whether they took their place among the forms of the vegetable or animal kingdoms. One organism in particular, which was at first deemed the jointed stem of some plant resembling a calamite of the Coal Measures, was found by Agassiz to be the slender limb of a crustacean. A minute description of this interesting deposit, with illustrative prints, would be of importance to science: it would serve to fill a gap in the scale. The geological pathway, which leads upwards to the present time from those ancient formations in which organic existence first began, has been the work of well nigh as many hands as some of our longer railroads: each contractor has taken his part; very extended parts have fallen to the share of some, and admirably have they executed them; but the pathway is not yet complete, and the completion of a highly curious portion of it awaits the further labors of Mr. Webster, of Balruddery.

A considerable portion of the rocks of this middle formation in Scotland are of a bluish-gray color: in Balruddery, they resemble the mudstones of the Silurian System; they form at Carmylie the fissile, bluish-gray pavement, so well known in commerce as the pavement of Arbroath; they occur as a hard, micaceous building-stone in some parts of Fifeshire; in others they exist as beds of friable, stratified