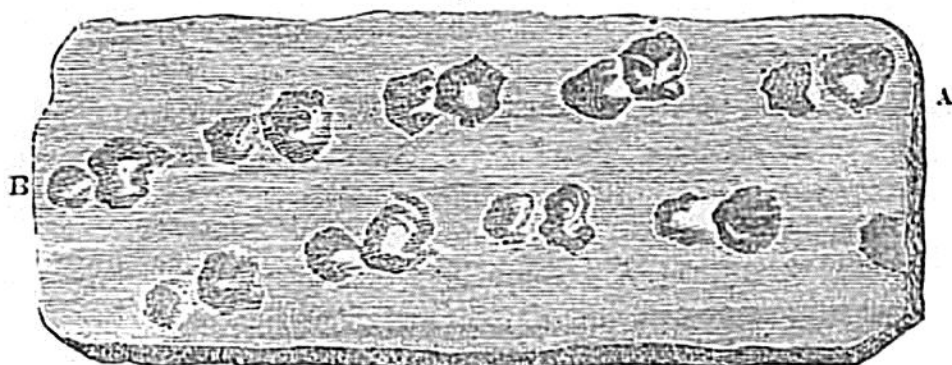


The matrix is a fine-grained whitish sandstone, with a cement of carbonate of lime. Although almost all the bones except those of the skull have decomposed, their natural position can still be seen. Nearly perfect casts of their form were taken by Dr. Mantell from the hollow moulds which they have left in the rock.

Slight indications are visible of minute conical teeth. Of ribs there are twenty-four pairs, very short and slender. The pelvis is placed after the twenty-fourth vertebra, precisely as in the living Iguana. On the whole, Dr. Mantell inferred that the animal possessed many Lacertian characters blended with those of the Batrachians. He was unable to decide whether it was a small terrestrial lizard, or a freshwater Batrachian, resembling the Tritons and aquatic Salamanders.

Although this fossil is the most ancient quadruped of which any osseous remains have yet been brought to light, it seems not to have been the only one then existing in that region, for Captain Brickenden observed, in 1850, on a slab of sandstone from the same quarry at Cummington, a continuous series of no less than thirty-four footprints of a quadruped. A small part of this track, the course of which is supposed to have been from A to B, is represented in the annexed cut (fig. 537). The footprints are in pairs, forming two parallel rows; the hind foot being

Fig. 537.



Scale one-sixth the original size.

Part of the trail of a (Chelonian?) quadruped from the Old Red Sandstone of Cummington, near Elgin, Morayshire.—Captain Brickenden.

one inch in diameter, and larger than the fore foot in the proportion of 4 to 3. The stride must have been about 4 inches. The impressions resemble those left by a tortoise walking on sand; and, if this be the true interpretation of the trail, they are the only indications as yet known of a chelonian more ancient than the trias.

I have already alluded (p. 400) to trails referred by American geologists to several species of air-breathing reptiles, and discovered on the eastern flank of the Alleghany range, in Pennsylvania, in a red shale, so ancient that a question has arisen whether the rock should be classed as the lowest member of the carboniferous, as Professor H. D. Rogers conceives, or as the uppermost Devonian, as some have contended (see p. 400). They at least demonstrate that certain quadrupeds, of larger size than any of the bones that have been found in carboniferous rocks, existed at