

top. And Professor Fleming describes a still more remarkable vegetable organism of the same formation, which, to employ his own well-selected words, 'occurs in the form of circular flat patches, composed each of numerous smaller contiguous circular pieces, altogether not unlike what might be expected to result from a compressed berry, such as the bramble or rasp.'<sup>1</sup> In the lowest (*middle*) division of the Old Red traces of land plants become very rare. Many years ago, at Cromarty, I detected, in one of its oldest fossiliferous beds, a fragment of a cone-bearing tree, remarkable as being the oldest piece of wood ever found, that, when subjected to the microscope, exhibits the true ligneous structure; and I possess a small specimen from Skail, in the mainland of Orkney, also detected in one of the lower beds, which formed apparently a portion of some nameless fern; but the other vegetable remains of the lower (*middle*) division, though sufficiently abundant in some localities to give a fissile character to the rock in which they occur, are, with one doubtful exception, all marine. They were the weeds of a widely extended sea, in which land was at once very unfrequent and of very limited extent. In the neighbourhood of Thurso my attention has been attracted for several years past by a curious appearance among the flagstones of the district,—there enormously developed,—which I am disposed to regard as indications of the existence of vast mud flats of the Old Red Sandstone, that occasionally showed their surfaces above water for perhaps weeks and months at a time, but which were in every instance submerged ere they acquired coverings of terrestrial vegetation. The flagstones, now known very extensively over Europe as the Caithness flag of commerce, must have been deposited at the bottom of a shallow sea,

<sup>1</sup> *Parka decipiens*. See *Testimony of the Rocks*, latest edition. For notice of a *Lepidodendron* occurring in the Forfarshire sandstone see likewise *Testimony of the Rocks*, page 446-7.—L. M.