

ish deposits are to be found in Moray, Perthshire, Fife, Berwickshire, and Ayr. In the collection of fishes from Dura Den, exhibited four years ago before the British Association, then assembled at Edinburgh, I saw several Celacanthus that have not yet been described; and a good deal has still to be done in fixing and restricting some of the genera of the formation already named and figured. It will be found, for instance, that Agassiz's genus *Placothorax*, and his two species *Coccosteus maximus* and *Pterichthys major*, will ultimately all resolve themselves into the latter species alone, — *Pterichthys major*; of which, by the way, vast numbers have recently been found, though in a broken state, in the Upper Old Red Sandstone of the "Heads of Ayr." We may of course expect, however, to see more species and genera added to the group than subtracted from it. I must mention, ere concluding this part of my subject, a curious fact connected with the flora of the formation. When visiting last spring the Museum of Economic Geology in Jermyn-street, under the friendly guidance of the late Professor Edward Forbes, he pointed out to me an interesting group of plants, in a fine state of keeping, which had been derived from the Old Red Sandstone of Ireland. The genera seemed identical with those of the Coal Measures, but all the species were different. I marked, among the others, an elegant *Cyclopterus*, — *Cyclopterus Hibernicus*, — of which Sir Roderick Murchison figures a single pinna in his recently published "Siluria." The Professor also introduced me to the only ichthyic organism that had been found in the Irish deposit, with the plants, a ganoidal fish, apparently a Celacanth, and very much of the type of those of the Upper formation, though I failed to identify the species with any of those already known. Professor Forbes, in return, visited my collection here only a few weeks ago; and, in a fern of this Upper deposit, laid open by our ingenious member, Mr. John Stewart, in Prestonhaugh