

It will be found, however, that this hitherto neglected system yields in importance to none of the others, whether we take into account its amazing depth, the great extent to which it is developed both at home and abroad, the interesting links which it furnishes in the zoölogical scale, or the vast period of time which it represents. There are localities in which the depth of the Old Red Sandstone fully equals the elevation of Mount Ætna over the level of the sea, and in which it contains three distinct groups of organic remains,

Old Red Sandstone is of enormous thickness in Herefordshire, Worcestershire, Shropshire, and South Wales, where it is seen to crop out beneath the Coal Measures, and to repose on the Silurian Rocks. In that region, its thickness has been estimated by Mr. Murchison at no less than ten thousand feet. It consists there of —

“ 1st. A quartzose conglomerate, passing downwards into chocolate-red and green sandstone and marl.

“ 2d. Cornstone and marl, (red and green argillaceous spotted marls, with irregular courses of impure concretionary limestone, provincially called Cornstone, mottled red and green; remains of fishes.)

“ 3d. Tilestone, (finely laminated hard reddish or green micaceous or quartzose sandstones, which split into tiles; remains of mollusca and fishes.)

“ I have already observed that fossils are rare in marls and sandstones in which the red oxide of iron prevails. In the Cornstone, however, of the counties above mentioned, fishes of the genera *Cephalaspis* and *Onchus* have been discovered. In the Tilestone, also, *Ichthyodorulites* of the genus *Onchus* have been obtained, and a species of *Dipterus*, with mollusca of the genera *Avicula*, *Arca*, *Cucullæa*, *Terebratula*, *Lingula*, *Turbo*, *Trochus*, *Turritella*, *Bellerophon*, *Orthoceras*, and others.

“ By consulting geological maps, the reader will perceive that, from Wales to the north of Scotland, the Old Red Sandstone appears in patches, and often in large tracts. Many fishes have been found in it at Caithness, and various organic remains in the northern part of