

of formations which most properly claims the sandstone in question as one of its members. These remarks are rendered necessary, since it has been described as the old red sandstone by a most able and accurate geologist, from whom it is impossible to differ without hesitation and deference; but whose researches do not appear to have extended to those parts of the island which alone afford a completely satisfactory solution of this debated question.

This coal-field ranges from Wombridge in the parallel of Wellington, to Coal-port on the Severn, a length of about six miles; its greatest breadth is about two miles. It is composed of the usual members, namely, of *quartzose sandstone*, of *indurated clay*, of *clay porphyry*, of *slate clay*, and of *coal*, alternating with each other without much regularity, except that *each bed of coal is always immediately covered by indurated or slaty clay*, and not by sandstone. The series immediately belonging to the coal-formation is most complete in the deep of Madely colliery, where a pit has been sunk to the depth of 729 feet through all the beds, *eighty-six in number*, that constitute this formation.

The *sandstones*, which make part of the first 30 strata, are fine-grained, considerably micaceous, and often contain thin plates or minute fragments of coal. The 31st and 33d strata are coarse-grained sandstone entirely penetrated by petroleum; they are, both together, fifteen feet and a half thick, and furnish the supply of petroleum that issues from the *tur. spring* at Coal-port. At the depth of 430 feet occurs the first bed of very coarse sandstone or grit; its thickness is about 15 feet. The next bed of sandstone deserving notice, occurs at the depth of 576 feet, is about 18 feet thick, is fine-grained and very hard, and is often mixed with a little petroleum: the name given to it by the colliers is the *big flint*. The lowest sandstone, called the *little flint*, is the 85th in number, and is about 15 feet thick; the lower part is very coarse and full of pebbles of quartz; the upper is of a fine grain, and sometimes is rendered very dense and hard by an intimate mixture of iron ore; it occurs at the depth of 705 feet. Vegetable impressions are met with in most of the sandstone beds, but it is not known that they contain shells.

The *clay-porphry* occurs only once in the whole series; it forms a bed nine inches thick, at the depth of 73 feet from the surface. It consists of a highly indurated clay of a liver-brown colour, in which are imbedded grains of quartz, of hornblend, and of felspar.

The *indurated clay* is in some beds compact, dull, and smooth; it is then termed *clod*: in others it is glossy, unctuous,