

oolitic ranges through the south-east of Somersetshire, into Dorsetshire; where the overlying strata of green sand, (which in this quarter extend successively over the edges of all the inferior strata as far as the red marle) cover and conceal it, forming the high ranges of the Blackdown hills. It is however laid open to view by denudation in all the eastern vallies of that chain, and may thus be traced to the coast of the channel; where, in the neighbourhood of Lyme, it is displayed in a range of cliffs, extending about four miles, and sinking at length beneath a covering of the inferior oolite and its sand.

The best places for studying this stratum are the cliffs of Whitby in Yorkshire, those of Fretherne and Westbury, on the æstuary of the Severn in Gloucestershire, of Watchett in Somersetshire, of Aberthaw in Glamorganshire, and of Lyme in Dorsetshire.

(e) *Height of hills.* The lias generally forms broad and level plains at the foot of the oolitic chain of hills. It may be generally observed, that all the argillaceous formations in most instances occur as constituting low tracts, in the present configuration of the Earth's surface;—a circumstance which is rather to be attributed to their having offered less resistance to the denuding causes which modified the inequalities of that surface, than to any thing connected with their original formation. These plains are sometimes diversified with low ridges, and a slight escarpment may often be traced following the lower limit of the formation. This escarpment is most conspicuous on the borders of Nottinghamshire and Leicestershire, where it forms a well marked range distinguished by the name of the Wold hills. Near the Mendips, as we have already noticed, the lias sometimes occurs on the brow of tolerably steep escarpments, but its maximum of elevation probably falls short of five hundred feet above the level of the sea.

(f) *Thickness.* The joint consideration of the dip of the beds constituting this formation and their horizontal extent, together with the relative levels of its superior and inferior limit, gives a result of between four and five hundred feet for their thickness in the midland counties.

(g) *Inclination of the strata.* This is usually very small not exceeding forty feet in the mile, which conformably with all the strata ranging through the island, from north-east to south-west, is in a south-easterly direction; but where it comes into contact with the ridges of mountain lime and older rocks in Glamorganshire and Somersetshire, it is occasionally much disturbed and affected by some of the faults which traverse them; such disturbances are however always partial and limited;