

ising, gives name to the whole formation, occurs principally towards the middle of the series. Such at least is the disposition of the beds near Oxford, where they have been most attentively examined; and in Wiltshire (where the confused account of Mr. Townshend indicates the reverse), it has been ascertained that the same order prevails.

The general relations of the fossils in these beds, and their association, as constituting a single and well marked range of hills between the vallies of the Kimmeridge and Oxford clay, are sufficient to indicate the propriety of considering them as a single formation.

We proceed briefly to state the character of the various constituent beds of this formation.

The Upper calcareous beds are;—a calcareous freestone of tolerably close texture, full of shells comminuted into fragments generally too small to ascertain their species; more or less oolitic, frequently very indistinctly so, but occasionally passing into beds in which the oviform grains are much larger than in any of the other oolites. This variety, which though by no means universal, is yet, where it occurs, characteristic of the formation, has given rise to the name *Pisolite* employed by Mr. Smith. The colour of all these beds is of a yellowish white, becoming palest in the most oolitic, and passing occasionally into shades of light grey. It rises in thick beds often traversed by lines of division oblique to the plane of stratification; which hence, unless where the stone is exposed to a considerable depth, becomes obscure. It affords a tolerable material for building, but far inferior to the oolites of Portland already described, and to those which will be hereafter described as belonging to the third division, scaling off in large flakes after a few years exposure to the weather. Oxford has to regret its vicinity to this formation. It is a tolerably good limestone, but probably contains from one-tenth to one-third of sand.

The coral rag, which lies under this freestone, consists, as its name denotes, of a loose rubbly limestone, mingled with and often almost entirely made up of a congeries of several species of aggregated and branching madreporae. Two or three irregular courses of this rock intervene between the freestones and the inferior sandy beds; they often assume a marly character and grey colour; they are used for lime and the repair of roads.

The sandy, or rather siliceo-calcareous beds, consist of a thick deposit of yellow coloured quartzose sand, usually containing about one-third of calcareous matter, and traversed by irregular strata and concretions of indurated calcareo-siliceous