Through the north of Dorsetshire, the continuation of these formations is concealed by the projection westwards of the vast overlying platforms of chalk and green sand extending over their basset edges. Beyond the escarpment of the chalk towards the southern coast of that county, however, we again meet with them under the following circumstances.

1st. Near Upway, on the road from Dorchester to Weymouth, a zone of the Purbeck beds may be observed for some distance immediately beneath the escarpment of the chalk; they are here however very imperfectly exhibited; but they may, nevertheless, be obscurely traced to the point where the chalk hills meet the coast, six miles east of Weymouth; where we shall presently return to them.

The country intermediate between Upway and Weymouth exhibits what is geologically termed a Saddle of the two inferior division of oolites; presenting in succession, on either side of a central point between these two places, the coral rag, Oxford clay, and forest marble, dipping on either side from this central point.

On the southern flank of this saddle, close to the passage from Weymouth to Portland, the Kimmeridge clay may be seen resting against the coral rag.

The Kimmeridge clay also forms the substratum of the whole Isle of Portland, and rises high on its northern face, where it is capped by an abrupt escarpment of the superior oolitic beds. All the strata sensibly decline, though not under a very rapid angle, to the south; thus giving the profile of the island, as seen either from the east or west, that appearance of an insulated inclined plane which at once distinguishes it from the other headlands. This declination brings the line of junction between the Kimmeridge clay and oolite to the level of the sea, near the south extremity of the island, which is formed by low calcareous cliffs, worked by the action of the sea into numerous caverns, some of which communicate with funnel-shaped craters on the surface of the island, through which the waves may be seen boiling within the narrow limits in which they are pent. All the coasts of this island are steep, the base of Kimmeridge clay forming a sloping talus surmounted by crags of the oolite, scarred by numerous quarries. Near Bow and Arrow castle is a remarkable rocky defile on the top of the cliffs, imitating in miniature one of the Derbyshire dales.

2. We have now (returning to the coast where the chalk hills meet it east of Weymouth) to trace the formations which constitute the subject of this section through the Isle of Purbeck. The inclined position of the strata occupying the district thus denominated, and the deeply excavated caves which