themselves. It seems applicable with sufficient propriety to designate the distinction between these three oolitic systems, separated as they are by vast intervening argillaceous deposits; and even to the distinction between those argillaceous deposits and the oolites they support—but scarcely so to the minor subdivisions which take place in the lower oolitic system. And we must observe generally, that all the systems appear to have resulted from the gradual and successive action, through a long period, of similar causes, uninterrupted by any violent change of circumstances. Whence these causes produced, at one time argillaceous, at a second arenaceous, and at a third calcareous and oolitic deposits; or why these alternations are several times repeated, are questions which it does not belong to the present state of science to answer.

Each of these beds is characterised by its peculiar organic remains, and very often even the minutest subdivisions may be thus identified,—remains of many extinct genera of oviparous quadrupeds, allied more or less nearly to crocodiles and monitors, but apparently inhabitants of salt water only,—various vertebral fishes,—testacea of every description,—corolloid zoophytes,—encrinites, &c.

These formations, in England, occupy a zone having nearly thirty miles in average breadth, extending across the island from Yorkshire on the north-east to Dorsetshire on the south-west.

(*b*) *Foreign localities.* The British Islands present no traces of these formations beyond the limits above assigned, with the exception of the lias, which occurs in Ireland in the county of Antrim, near the south-east border of the basaltic district; in the Isle of Sky, and some other of the Hebrides.

In France, as we have before stated, some of the oolites of this series may be traced in the denuded tract surrounding Boulogne, particularly at Marquise; they may be seen also succeeding the chalk on the west on the coast of Normandy, beyond the mouth of the Seine, and between that point and the transition district of the Cotentin.

A recent examination of that coast by Mr. De la Beche, who has kindly communicated to us the general results of his observations, enables us to add to the notice already given (see the note on the account of the chalk cliffs of the French coast) the following more detailed and corrected particulars.

Along the mouth of the Seine, on both sides, the chalk and green sand repose on a blue marle and marle-stone. At Trouville sur Mer, the oolites of the upper and middle formation, i. e. the Portland stone and Coral rag, emerge from beneath this marle. Between Villers sur Mer and Dives, the clay sepa-