

BIVALVES.

Cardita deltoidea. T. 197, fig. 4.*Chama digitata.* T. 174.*Gryphæa incurva.* T. 112, fig. 2.*Pecten fibrosus.* T. 136.*Plagiostoma obscura.* T. 114, fig. 2.*Avicula inequalvis.* T. 244, fig. 2.*Terebratula ornithocephala.* T. 101.*

(d) *Range and extent.* The uncertainty which as yet prevails concerning the true divisions of the oolitic formations which appear in Yorkshire,† prevents our being able to speak with absolute decision concerning the course of this formation at the north-eastern termination of the diagonal zone which it forms across the country. It should seem, however, that it certainly occurs on the coast of that county at Yew Nab near Filey bridge, underlying the calcareous grit of the coral rag formation; and it is probable that the greater part of the Clay vale, lying along the Yorkshire Derwent as far as New Malton, and intervening between the chalk and oolite hills, is of this formation. On the south of New Malton, the chalk advances close to the oolite hills and overlies this argillaceous tract.

South of the Humber, it may be traced in a southern direction through Lincolnshire, following the course of the fens along the Ancholme navigation, and the Witham river, to Boston; proceeding in the same direction, it forms the substratum of the western portion of the Cambridgeshire fens and those which border on Huntingdonshire; hence it has sometimes been called the *Fen Clay*. Where it enters Lincolnshire on the north, it forms a very narrow tract, not exceeding three or four miles across; but, from the drawing away of the chalk hills and their intermediate substrata which cover it, towards the south-east, a great breadth of it becomes exposed on the south of this county; a line taken at right

* The references, unless where otherwise specified, are to Sowerby's Min. Conchology.

This list would undoubtedly be much increased were these strata more explored: but affording few materials applicable to economical uses, they have been very little laid open or examined. The most characteristic shell is the *Gryphæa dilatata*.

† Mr. Smith in his general Map, and more lately in his particular Map of Yorkshire, has represented the *Alum shale* of that county (near Whitby, &c.) as belonging to this formation; but the continuity of this tract with the great zone of the lias formation, the whole list of its organic remains, and its general characters, prove beyond the possibility of doubt that it really belongs to the lias, and not to the Oxford or clunch clay; it is correctly represented in Mr. Greenough's Geological Map. This subject will be more fully discussed in treating of the Lias formation.