

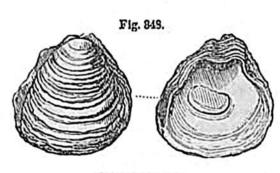
Isastraa oblonga, M. Edw. and J. Halme. As seen on a polished slab of chert from the Portland sand, Tisbury.



Trigonia glbbosa. + nat. size. a, the hinge. Portland Stone, Tisbury.



Cardium dissimile. 1 nat. size. Portland Stone.



Ostrea expansa. Portland Sand.

matter may have been, in part at least, derived from the decomposition of vegetables. But as impressions of plants are rare in these shales, which contain ammonites, oysters, and other marine shells, the bitumen may perhaps be of animal origin.

Among the characteristic fossils may be mentioned Cardium striatulum (fig. 349) and Ostrea deltoidea (fig. 350), the latter found in the Kimmeridge clay throughout England and the north of France, and also in Scotland, near Brora. The Gryphaa virgula (fig. 351), also met with



Cardium striatulum. Kimmeridge clay, Hartwell.



Ostrea deltoldea.



Gryphaa virgula. Upper Oolite: Kimmeridge clay. 4 nat. size.

in the same clay near Oxford, is so abundant in the Upper Oolite of parts of France as to have caused the deposit to be termed " marnes à gryphées virgules." Near Clermont, in Argonne, a few leagues from St. Menchould, where these indurated marls crop out from beneath the Gault,