

surface, at a height of more than 600 feet above the sea, and other similar nests of ferruginous sands are met with along the Downs as far as Folkestone. At first these deposits were thought to be portions of the base of the Tertiary series, but the occurrence of apparently Pliocene shells in them led to a more thorough investigation of them, with the result that they have been proved to be of the same age as similar deposits which cap the hills on the other side of the Straits of Dover from Boulogne into Belgian Flanders, whence they stretch northward as a wide continuous sheet into Holland. These sands, known as Diestian, have yielded at Diest and Antwerp a large assemblage of fossils, which prove them to be of older Pliocene age. Of the Diestian fossils of Holland and Belgium so large a proportion has been detected, generally in the form of hollow casts, in the Lenham deposits as to leave no doubt of the geological horizon of these scattered fragments of a formation.

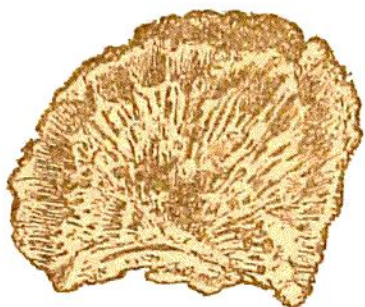


Fig. 448.—Pliocene Polyzoon.
Fascicularia aurantium,
M. Edw. (A).

About 67 species have been obtained from Lenham, the southern character of which is indicated by the genera *Ficula* (*Pyrula*), *Xenophora* (*Phorus*), *Triton*, and *Avicula*, with abundant examples of *Arca diluvii*, *Cardium papillosum*, and *Cupularia canariensis*. It is interesting to notice the great change of level which this fragmentary formation serves to prove since older Pliocene time in the south of England. From the general character of the fauna found at Lenham it is probable that the shells lived in a depth of not less than 40 fathoms of water. This vertical amount, added to the present height of the deposit above the sea, gives a minimum of 860 feet of uplift.⁹⁸

St. Erth Beds.—The only other fragment yet known of older Pliocene formations in Britain lies far to the west between St. Ives and Mount's Bay in Cornwall, where a patch of clay, probably less than a quarter of a square mile in area, contained in a hollow of the slates, has preserved an interesting series of organic remains. Among the forms which connect this deposit with corresponding strata elsewhere the following may be mentioned: *Chemnitzia plicatula*, *Columbella sulcata*, *Cypræa avellana*, *Eulimene terebellata*, *Fissurella costaria*, *Lacuna suboperta*, *Melampus*

⁹⁸ C. Reid, op. cit. pp. 42, 69.