in the latter, and hence the sulphuric acid concerned in the formation of the selenite and gypsum seems to be obtained. (Maton. G. Notes.)

(*c*) *Organic remains.* Beautiful impressions of fish are frequently met with by the quarry men between the laminæ of the limestone, and abundance of fragments of bones, some of which belong to the turtle. Complete fossil turtles have also been found, and one extremely perfect. (W. p. 163.)

Mr. Johnson of Bristol* possesses a very perfect head of a crocodile found in Purbeck; but the character of the matrix is not quite decisive, as to whether it belongs to these or the Portland beds.

The shells of this formation have not been accurately examined; the most common is a small and elegant species of Vivipara, supposed to be a freshwater shell, but the subject requires further investigation.

(*d*) *Range and extent.* (*e*) *Height of hills.* These subjects will, for the reasons primarily stated, be treated of in a common article with reference to these beds—those of Portland and the subjacent Kimmeridge clay.

(*f*) *Thickness.* According to the measurements of Mr. Middleton (the only ones published), as given in the note to (*a*), the thickness of these beds in Purbeck is 291 feet; the higher numbers that have been sometimes given, arise from taking the Portland beds into the account.

(*g*) *Inclination.* The inclination of the strata of the three associated formations, will be most conveniently treated of together in the article at the end of this section.

(*h*) *Agricultural character.* A marly clay.

(*i*) *Water.* A retentive stratum; the wells must be sunk through it to the bottom of the Portland beds.

2. PORTLAND OOLITE.

(*aa*) *Chemical and external characters.* This formation consists of several beds of a coarse earthy limestone. The different beds often vary in their characters, nor are the same beds of an uniform texture in different localities. The calcareous rocks, through all the three divisions of the oolite series (where they do not, as in the case of the Purbeck beds and lias, assume new features from the admixture of argil) are not easily to be distinguished (excepting by the aid of their organic remains) from one another, though very readily dis-

* The remainder of this article is by the Rev. W. D. Conybeare.