

7. *Fossarus cereus*, Watson. Station 184; 1400 fathoms.

This animal does not possess cervical lobes; it is therefore unlikely that it is a true *Fossarus*. Eyes are entirely wanting.

FISSURELLIDÆ.

8. *Puncturella brychia*, Watson. Station 47; 1340 fathoms.

As in the preceding forms, there are no visible eyes.

II. PELECYPODA.

The internal structure of the Pelecypoda does not generally vary much in its essential features (alimentary canal and its adjuncts, circulatory and excretory apparatus, genital organs, nervous system). On the other hand, the external organs, such as the gills, the mantle, the foot, having more direct connection with the surrounding medium, are much more variable in form, because of the immediate action of external conditions, and because of their adaptation to the diverse life conditions of the Pelecypoda.

We shall therefore devote special attention here to the form and modification of these latter organs.

ARCACEA.

Four different genera of this group are represented in the collection entrusted to me: *Malletia*, *Yoldia*, *Limopsis*, *Arca*.

1. *Malletia pallida*, Smith. Station 137; 2550 fathoms.

A single specimen slightly damaged.

The *mantle* is quite open, except behind, where its internal fold forms two siphons joined together. In the anterior portion the mantle is not separate from the visceral mass, and the visceral glands extend to it (Pl. I. fig. 7, e).

The siphons are not separate from each other. The ventral one (inhalent), which is the shorter, is open ventrally all its length; it does not form a closed tube, like that of the other Pelecypoda with two siphons, but resembles the rudimentary open branchial siphon of *Modiolaria nigra*, and the funnel of the *Nautilus*. In *Yoldia* (see later *Yoldia isonota*) this inhalent siphon forms a completely closed tube, like that of the other Pelecypoda with two siphons.

This open siphon cannot be compared to the open pseudo-siphon of *Leda*.¹ The

¹ Deshayes, Histoire Naturelle des Mollusques (Exploration Scientifique de l'Algérie), pl. cxv. fig. 2, c.