is differentiated and forms a distinct mass (labial projection, Bouvier), from which spring the nerves supplying the probably gustatory parts (Pl. I. fig 5, *e*).

In *Trochus infundibulum* each of these labial projections gives off, distally, two nerves, of which the greater (*i*) is the special nerve of the lips of the mouth, while nearer the cerebral ganglion properly so called, there arises a large nerve (*h*) which goes directly to the labial palp.

The labial palps of *Trochus infundibulum* are connected below the alimentary canal, forming an infra-œsophageal commissure, as in *Patella* (this does not exist in the *Trochus* figured by Haller[1]) and in all the Diotocardia, according to Bouvier.[2]

There can be no doubt as to the nature and use of these appendages (labial palps); they are organs of sense, more tactile than the anterior tentacles. When greatly developed (*Ampullaria*, *Trochus infundibulum*, *Glandina*, etc.) they become important exploring organs. In *Bulimus* (according to Férussac) these palps exhibit on their anterior surface a series of minute regular projections, the structure of which has not, to my knowledge, yet been studied.

Besides the forms hitherto enumerated, I have been able to study several other species of Gastropods from great depths collected by the Challenger Expedition. But, as was the case with the preceding species, I have only been able to examine the anterior portions of the body, since the visceral mass had remained in the shells, which were not to be destroyed. The most interesting point resulting from the examination of these forms relates to the state of the organ of sight.

Pleurotomatidæ.

5. *Pleurotoma lepta*, Watson. Station 157; 1950 fathoms.

The head, the proboscis, and the tentacles are quite normal, except that the last are entirely devoid of eyes: they exhibit neither a pigmented spot, nor even, like *Guivillea*, a projection indicating a rudimentary eye.

As in all the other animals of the group, the roof of the pallial cavity exhibits a false gill (osphradium) (here very large) to the left of the functional gill. Watson is mistaken in his description of its position.[3]

6. *Pleurotoma brychia*, Watson. Station 106; 1850 fathoms.

This species is in the same condition as the preceding one as far as the tentacles are concerned: no trace of an eye can be found on them.

[1] Untersuchungen über Marine Rhipidoglossen, i., *Morph. Jahrb.*, t. ix. (1884) pl. ii. fig. 3.

[2] Système nerveux, morphologie générale et classification des Gastéropodes Prosobranches, *Ann. Sci. Nat.* (Zool.), sér. 7, t. iii. p. 481.

[3] Zool. Chall. Exp., part lvii. p. 335.