body is visible which, I think, must necessarily represent the cement-gland. However, neither the place it occupies nor its structure shows any resemblance to the same glands—or what we must consider as such—in the Cypris of *Lepas australis*. Nor have these glands in the male of *Scalpellum regium* great conformity with those organs in the younger Cypris-stage of another species of *Scalpellum* (*Scalpellum triangulare*), which I figure in Pl. II. fig. 4. In this stage the antennæ (*An*) are still totally hidden within the valves, and the cement-glands (*C. gl*) form very large cellular masses situated on both sides of the thoracic part of the body between it and the valves. I think it is in this stage that the Cypris-larva leaves the mantle cavity of the mother.

What we called the mantle in the Cypris of *Lepas australis* takes in the male Cypris of *Scalpellum regium* the form of a bag closed on all sides, with only a very small opening at the hinder extremity. This opening no doubt corresponds to the slit-like opening at the ventral side of the Cypris of *Lepas*. It also serves the same purpose. We see the very delicate and slender spines placed at the extremity of the legs come forth from this opening. For want of material I have not been able to study in detail the structure of the mantle, nor its musculature. I can only say that the mantle is composed of flat and pale rounded cells of 0·01 mm. in diameter, with a small clear nucleus, and that these cells are placed at a little distance from each other; that the muscular fibres form a single layer only, and are built up of elongate oval cells placed in longitudinal rows and each furnished with a distinct nucleus (Pl. I. fig. 7). Besides the body the interior of the mantle contains a mass of connective tissue with little grains and small fatty corpuscles scattered irregularly throughout its meshes. With regard to the body it is not difficult to observe the mouth (Pl. II. fig. 3, *M*), the œsophagus (*Œ*), and the stomach (*St*); the nervous system consisting of a supraœsophageal ganglion (*G S*) and a single, rather large thoracic ganglion (*G T*); six pairs of very slender cirri with delicate spines at their extremities; a pair of long and well developed caudal appendages (*C A*). A dark coloured mass, consisting for the most part of yolk-fragments, makes up a great deal of the rest of the true body of the embryo *Scalpellum*.

As for details, I can only say that the parts which surround the mouth are not very distinct, and that the very long œsophagus leads into a blind pouch of an oval shape, and that this pouch represents the stomach. The two branches of each cirrus are indistinctly divided into four segments; the shape of each segment is cylindrical, with the exception of the last joint, which is conical, and slopes into the very long spines placed at the extremity. The first two pairs of cirri are somewhat different from the following pairs, inasmuch as in the first two the lower two segments are the only ones which are filled up with a mass of cellular structure; so, when the cirri have shed the exuviæ which now cover them, the cirri of the first two pairs undergo a considerable diminution in length. The very long caudal appendages in this stage are also represented only by the chitinous skin. After the last casting of skin they will no doubt have disappeared.