

studied in a sagittal section as figured, the compound eyes—which, according to Darwin, are attached to the basal joints of the antennæ—are visible.

The structure of the interior of the body can easily be made out by the aid of the figure. *M.* is the mouth; it is surrounded by darkly pigmented parts, the exact shape of which is not very distinct; the mouth gives entrance to the œsophagus (*Æ*); the latter has a horizontal direction, is furnished with a pair of cœca (*C*), and leads into a very capacious stomach (*S*), from which a narrow intestine (*Int.*) is seen to start. Œsophagus, cœca, stomach, and intestine are all very darkly pigmented. The six pairs of cirri and the caudal appendages present nothing particularly interesting; the different cirri have only to shed their skin to change into the cirri of the *Lepas*; the caudal appendages will have to undergo a very marked retrogressive metamorphosis to change into the rudimentary, uniarticulate, and smooth appendages of the full-grown *Lepas australis*. The nervous system is already quite distinctly visible; it consists of the suprœsophageal ganglion (*GS*), and the six thoracic ganglia (*GI.–GVI.*). The first is situated very close to the cœca of the œsophagus and has a simple eye (*e*), represented by a small triangular spot of pigment attached to it (fig. 2, *e*). The chain of thoracic ganglia is on the right hand side of the stomach, between this organ and the ventral wall of what is properly the body. The ganglia are not yet separated by commissures, but are placed close to one another; the first has an oval shape, and is much larger than the following ones. The ganglionic cells which cover the surface of the different ganglia are extremely small.

In the peduncular part of the body nearly all the room is filled up by a mass of connective tissue with very large meshes; between this mass of reticular connective tissue and the layer of cells which represents the mantle a double layer of muscular fibres may be discerned. The fibres of the two layers are at right angles to each other, and both layers run parallel to the surface of the body and the valves of the Cypris; in the figure, one of these layers is represented by the lines running parallel to each other, and also to the curved frontal line of the larva. This layer is composed of rather broad fibres (each fibre has an oval, not very elongate nucleus) and a breadth of 0·012 mm., which will develop into the layer of longitudinal muscles of the peduncle of the *Lepas*. The other layer is situated between the former and the mantle, and shows much narrower fibres, with very narrow and elongate nuclei (each fibre has a breadth of only 0·003 mm.); this latter layer forms the circular muscular layer of the peduncle in the full-grown *Lepas*. The cells which constitute the mantle are relatively small, and are furnished with large nuclei (0·01 mm.); at different places they are richly pigmented.

Between the fibres and nuclei of the connective tissue numerous fatty bodies are visible which are more like vesicles than grains; they have an elongate shape, are pointed at both extremities, and belong to what still remains of the yolk.

The cell-masses which Claus<sup>1</sup> describes as the cement-glands were very strongly

<sup>1</sup> Claus, C., Untersuchungen zur Erforschung der genealogischen Grundlage, &c., Wien, 1876, p. 87.