The sack of *Balanus tintinnabulum* was studied in transverse sections; its diameter was about 0·9 mm. I have been unable to investigate the way in which the oviduct communicates with it.

If Kossmann's explanation as to the presence of the irregular mass in the interior of the curious sack at the end of the oviduct be right (and I have no sufficient ground to doubt its correctness), the function of the cells which form the wall of the sack is to produce a viscous fluid which envelops the eggs. The thick mass which sometimes, and even very often or *as a rule*, is found in the interior of the sack is formed because the secretion continues incessantly, even when no eggs pass through the oviduct. The quantity of this viscous fluid which is secreted by these cells must indeed be rather large; for when a *Lepas* is furnished with ovigerous lamellæ and the interior of its sacks studied, large masses of the secreted substance are present. This must necessarily have been formed after the eggs passed through it, and cannot have been produced very long ago, for in the Cirripedia the evolution of the eggs in general does not take long. The very regular shape of the mass in some genera, as *e.g.*, in *Lepas*, where it is shoe-shaped and has a very smooth surface, must be ascribed to its being modelled, at least in part, after the internal surface of the sack; it remains, however, in my eyes a curious fact which, perhaps, has an analogy in the presence of a chitinous bag within the stomach in this same group of Cirripedia. I observed it in the stomach of all the Cirripedia of which I prepared transverse sections; according to Darwin it is a model of the stomach, filled with excrement and expelled by the rectum entirely in a single piece, as he observed in some living specimens of *Balanus balanoides*.

To understand the physiological meaning of the apparatus at the end of the oviducts, a second difficulty arises from the circumstance that we do not know the place where, and the way in which, the eggs are fecundated. If Kossmann's supposition be correct, the eggs are evacuated after being united together by means of the fluid secreted by the cells of the curious sack. These eggs, however, are ovarian, not yet fecundated eggs! I think it is difficult to understand how they are fecundated after they are united together by a fluid viscous glue. Of course, the only way of investigating successfully physiological questions of this kind is to study fresh and living material. But this study can only give trustworthy results when the anatomical structure is sufficiently well known. I think I have contributed to a more accurate knowledge of the anatomical structure.

I will not take leave of this subject without pointing out the great probability that the apparatus at the end of the oviduct morphologically represents a second segmental organ. Krohn[1] has already shown that, of all Crustaceans, the female genital openings are placed nearest to the cephalic part of the body in the Cirripedia; and even at present, though our knowledge of Crustaceans has been considerably increased since the year 1859, it is still true that they are the only Crustaceans which show this

[1] *Loc. cit.*, p. 360, note at the foot of the page.