

b. ANATOMY OF THE MALE OF *Scalpellum regium*.

I will now proceed to give an anatomical description of the complementary male of *Scalpellum regium* (Wyv. Thoms.), Hoek. I choose this species because it is represented by numerous specimens, and also because it is one of the largest species in the Challenger Collection.

*Form and dimensions.*—The complementary male of *Scalpellum regium* has an elongated oval shape. Its length varies from 1.6 to 2.4 mm., its breadth is 0.63 to 0.71 mm. The difference in length corresponds to differences in some of the internal parts, especially of the testis. Whether it is occasioned by the growth of this organ I cannot say. The third dimension, the thickness, is nearly equal to the breadth. We may call the extremities of the longer axis the poles of the body, and I propose to call one the peduncular, the other the capitular pole (Pl. I. fig. 1).

*The Antennæ.*—The only appendages visible externally are the small antennæ, situated close to the extremity of the body corresponding to the peduncle of other Cirripedia; they are seated at a little distance from the extremity, on that side of the body which represents the ventral surface. They have two segments; one cylindrical, and about twice as long as the other, which is flat and triangular. What Darwin calls the third and ultimate segment of the antennæ is very distinct in the case of this little creature (Pl. I. fig. 3). It is articulated to the upper surface of the disk, and directed rectangularly outwards. Whereas the main segments of the antennæ are not furnished with spines, this latter segment bears five spines at the end, and three very slender ones at a notch a little beneath the extremity of this segment.

With the aid of these antennæ the little creatures are attached to the inner surface of the scutum of the hermaphrodite or female. The triangular terminal segment of the antennæ, in all the cases I observed, surrounded the extremity of a transparent mass, which I think can safely be considered as the product of the cement-glands which are in relation with the antennæ. It is by means of this cement that the attachment of the triangular disk takes place. In the case of *Scalpellum regium* the males are attached a little above the adductor muscle, and, as a rule, three of them are implanted so closely together as to touch each other. What I think very peculiar is, that in three different cases observed by me, two of the three males attached to the scutum were much further developed than the third; the first contained a fully developed testis and a well-filled vesicula seminalis, the third was still in the condition of a Cypris-larva (Pl. II. fig. 3), probably only lately attached to undergo its final metamorphosis.

*The wall of the body* is a chitinous skin, which is comparatively thin and delicate; when a transverse section of the body is made, the chitinogenous epithelium beneath the