all sides. A very small slit represents the opening between the two scuta. The antennæ are the only extremities which still show their original condition; the cirri have grown straight and functionless; the parts of the mouth have disappeared.

2. The cement apparatus is well developed as long as the male is young; when mature it is no longer so distinct.

3. The intestine has become functionless and is quite rudimentary; circulatory and respiratory organs may be passed by, as they have no distinct organs even in the hermaphrodite *Scalpellum*.

4. The nervous system consists of a relatively small supraœsophageal ganglion, of a not very stout œsophageal ring, and of a large thoracic ganglion. It is probably the latter which alone regulates the functions of the genital apparatus. The peripheral part of the nervous system is not much developed. The eyes (and other organs of sense) have been lost.

5. The genital apparatus is the only well-developed system of organs. The female apparatus, however, is totally lost, and even the male organs show a great deal more concentration than do the same organs in ordinary hermaphrodite Cirripedia. In the first place the testis is single, and has become a rather compact gland, whereas in other Cirripedia it is double and scattered throughout almost the whole interior of the body. In the second place, the vesicula seminalis is also represented by a single vesicle only, hermaphrodite Cirripedia, on the contrary, having always two of them.

In all these respects the little males of other deep-sea species of *Scalpellum* which I have been able to investigate exactly correspond to the male of *Scalpellum regium*. So does the male of *Scalpellum vulgare* (from specimens from the Mediterranean) with the exception of the presence of rudimentary valves, which in that species, as in some of the deep-sea species (*vide* p. 4), represent the so-called primordial valves of the young capitulum of pedunculated Cirripedia.

c. General Observations.

In the case of *Scalpellum vulgare*, Leach, *Scalpellum rostratum*, Darwin, *Scalpellum peronii*, Gray, sp., and *Scalpellum villosum*, Leach, sp., Darwin observed what he considered a penis; in *Scalpellum vulgare*, Leach, and in *Scalpellum villosum*, Leach, sp., he ascertained, moreover, the presence of vesiculæ seminales and testis in the specimens which were also furnished with ovaria. These specimens, therefore, were hermaphrodites, and as little males were found attached to their scuta, these male specimens got the very characteristic name of "complemental" males. On the other hand, *Scalpellum ornatum*, Gray, sp., did not show a trace of a proboscidiform penis in the four specimens which Darwin examined, and he, therefore, supposes that the animals studied by him were females, although it was impossible, as the specimens were