

to the rather broad stem of a horny coral. In order to be able to make transverse sections of the peduncle, I have removed the chitinous wall of the peduncle with its calcareous scales. I stained the peduncle *in toto* by means of aluminium carminate. The ovary in this specimen was very strongly developed, and its cœca extended as far as the most inferior part of the peduncle. The true cement-glands have nearly the same shape and structure as in the other genera; in size they are larger than those of *Conchoderma*, but not so large as those of *Lepas*. They are rather numerous in the superior part of the peduncle, but become scarce lower down (Pl. V. fig. 6). On opening a peduncle of *Scalpellum vulgare* in alcohol, the glands appear as little white grains, and are visible even with the naked eye. Often the glands are not unicellular but composed of two or three cells combined; in that case the body of the gland is larger, and the two or three nuclei of the original cells are distinctly visible. In many of the glands a dark coloured oval nucleolus was present within the circular nucleus (Pl. V. fig. 6*); the size of the gland was 0·11 to 0·125 mm. in diameter, that of the nucleus 0·04, whereas the nucleolus measured 0·013 mm. The ducts at the end of which the glands are observed are very narrow, their diameter being about 0·007 mm.; those of adjoining glands often anastomose, so as to form together a network of ducts. I know these anastomosing canals from a preparation stained with picrocarmine and isolated by the aid of needles. In the transverse sections of the peduncle only very small parts of the ducts are seen attached to the glands.

All the narrow ducts pour their contents into four rather wide canals which, at the rostral side, run longitudinally through the peduncle. Immediately below the place in the superior part of the peduncle, where the two oviducts terminate, the first longitudinal cement-duct begins (Pl. V. fig. 6, *d*). It is closed at its superior extremity, the cement being shed in the canal by means of lateral openings. The blind extremity of the canal is placed a little more towards the centre of the peduncle; the canal slightly changes its direction so as to run parallel with and close to the elongated cavity (fig. 6, *a*), which is visible at the rostral side of most pedunculated Cirripedia (*Lepas*, *Conchoderma*, *Scalpellum*), and which is a continuation of a part of the body-cavity of the animal within the capitulum. The width of the cement-duct is about 0·3 mm. It is surrounded by a chitinous wall—perhaps the chemical composition is different from that of chitin—and it shows traces of an epithelial (or rather endothelial) cell-layer on the internal surface. About half-way along the peduncle a second longitudinal canal begins; it has, when seen in transverse section, a long oval shape, and is divided by a partition into two halves, which soon become independent. A little lower a third—properly speaking a fourth—canal begins (Pl. V. fig. 7). It has an oval shape; its largest diameter is 0·4 mm., its shortest 0·28; its wall is composed of a chitinous (?) outer layer and a regularly developed inner epithelial layer of very small cells with distinctly coloured nuclei. I do not quite understand why this epithelial cell-layer is well developed (at least distinctly visible) in the one duct, whereas it can scarcely be made out in the other ducts.