

mesenteries are somewhat shorter, and on account of the fact that the point where they leave the stomodæum is nearer to the body-wall, have a shorter horizontal course; they bear a rudimentary mesenterial filament, but are devoid of reproductive elements. The section of the cœlenteron corresponding to a tentacle will be seen from the foregoing account to vary in different parts. Two tentacles correspond to the sagittal axis, one being situated at each end of the stomodæum (these are "lateral" as regards the position of the zooids on a pinnule). In these cases the section of the cœlenteron corresponding to a tentacle, that for example between mesenteries 1 and 12, is an enlargement of one of the twelve interseptal chambers present in the oral cone. In the species under consideration these tentacles are usually longer and thicker than the others, and frequently extend horizontally in spirit specimens, whilst the other four stand up vertically. The remaining four tentacles each cover a section of the cœlenteron corresponding to two and a half chambers in the oral cone. When the mesenteries numbered 3 and 10 come to occupy the median transverse axis, one tentacle corresponds to the space between mesenteries 1 and 3, another to that between 3 and 6, and so on.

Cirripathes (*Cirrhopathes*).

In the genus *Cirripathes*, as restricted in the present Report, the zooids are distributed all around the axis, and are never found in single linear series, as in *Stichopathes* and most other Antipathidæ. *Cirripathes propinqua*, n. sp., has been selected as type of the genus, in preference to the older *Cirripathes spiralis*, on account of the fact that it is the only species of which I have been enabled to make a satisfactory examination of the zooids. In this species the zooids are closely packed, more so apparently than in *Cirripathes anguina* and *Cirripathes spiralis*. In spirit they are dull black in colour, have a rounded outline, and the six tentacles are usually arched inwards over the mouth. The greater portion of the peristome projects as a prominent round knob, on the surface of which the mouth opens. The mouth is usually slit-like, and the elongation takes place in the sagittal axis. Sometimes a portion of the stomodæum is somewhat everted, giving the aperture a crenate outline. The oral prominence is usually constricted at the point where it joins the general surface of the peristome, as figured by Ellis and Solander for *Cirripathes spiralis*. If a longitudinal incision be made through the zooids and cœnenchyma, and the whole stripped from the sclerobasic axis, it is seen that the inner surface is traversed by numerous series of irregular rugæ projecting beyond the base of the zooids (Pl. X. fig. 13). The precise relation of the zooids to the sclerenchyma has not yet been made out, on account of the fact that the axis is so thick and brittle that it is difficult to cut sections of it *in situ*. The tentacles are comparatively thick and fusiform, and are arranged in a radiate manner. Those in the