and following brachials are much larger and have broad lower joints that gradually come to take up more and more of the whole surface of the arm-joints to which they are attached. In fact the bases of the pinnules of alternate joints that are borne upon the same side of the arm are only just separated from one another by the narrow ends of the intervening joints, which have their pinnules on the opposite side of the arm. This is well shown in the right-hand figure on Pl. II., and also in Pl. Va. fig. 3. The pinnules are rolled in upon themselves (Pl. III. fig. 16) exactly in the same way that the arms are (Pl. Va. figs. 1, 2). The four or five lower joints are very broad, but the rest of the pinnule tapers away rather rapidly. The joints are united by paired muscular bundles (Pl. Vc. fig. 2, *m*), which is a somewhat unusual condition.

The disk of *Holopus* is unfortunately still but very imperfectly known, and I have only been able to examine it in one specimen. The central mouth is protected by five large and triangular oral plates which are opposite to the clavicular pieces of the united radials (Pl. III. fig. 2). The lateral edges of each of these plates are thickened and sometimes more or less cut into false teeth; while the raised central portion is pierced by from fifteen to twenty minute holes, the water-pores. The bases of the orals seem sometimes to rest directly against the edge of the radials; while they are sometimes separated from this edge by an irregular row of small triangular plates. It is not unlikely that an anal tube is concealed somewhere or other among these plates, as in the case of *Hyocrinus* (Pl. VI. figs. 3, 4); but I have seen no certain traces of it in the dry specimen. The same would probably be the case with *Hyocrinus* under similar conditions.

The food-grooves which come away from the mouth between every two of the oral plates are continued out on to the axillaries and from thence on to the arms. They occupy the deep channel between the large muscular processes at the sides of the joints, and in the dry specimen appear to be bordered by small, irregular plates. These, however, do not seem to correspond either to the side plates or to the covering plates of other Crinoids (Pl. Vc. figs. 9, 10; Pl. XLIX. figs. 6, 7; Pl. LI. figs. 11, 12; Pl. LIV. figs. 4, 6–9); for an examination of spirit specimens shows that these small plates really belong to the tentacles, which are relatively large and stout (Pl. Va. figs. 1, 2. Pl. Vb. fig. 2; Pl. Vc. figs. 1–3—T). The bases of these tentacles are protected by scale-like plates formed of the usual calcareous reticulation (Pl. Vb. figs. 2, 3). They are not easily made out at the side of the arm-groove, but on the lower parts of the pinnules there seem to be from two to three tentacles on either side of each joint. It is difficult to get a correct estimate of their absolute size; but after careful comparison with an eyepiece micrometer I should judge them to be nearly twice the size of the largest that I could find in any preparations of *Antedon eschrichti*. The general arrangement of the tentacles is the same as in other Crinoids; but the epithelial layer covering them is, if anything, thinner than in *Antedon eschrichti*, though thrown into much stronger corrugations at the outer ends of the tentacles.