

that remains of them, while there are one or two slight indications of the second whorl of cirri, the positions of which alternate with those of the first. The centro-dorsal has increased considerably in thickness, as has also the joint below it, which has similar re-entering angles, just as is the case in the infra-nodal joint in the stem of the Pentacrinidæ. Both of these larvæ have quite low basals as compared with those of the other species figured on the same plate, and especially *Antedon hystrix*? In this respect they approach the Pentacrinidæ and the typical Apiocrinidæ rather than *Rhizocrinus* and *Bourgueticrinus*, which they resemble in the characters of the middle and lower stem-joints. In the oldest larva, however, the basals are entirely concealed by the centro-dorsal, which has now reached a considerable size, with the second whorl of cirri well developed and even traces of a third, while there is only one discoidal joint below it. (Pl. XIV. fig. 7). In *Antedon multispina*, therefore, the basals become entirely concealed before the end of the Pentacrinoid stage, as in *Antedon tenella*, though it is not the case in *Antedon rosacea*.

The youngest of the three immature forms of *Antedon multispina* is considerably more advanced than the oldest Pentacrinoid larva. Not only the basals, but also portions of the first radials are concealed, and the first two pairs of pinnules have appeared, but from the fifth to the twelfth brachials the arms are devoid of pinnules. In the still older form, shown in Pl. XIII. fig. 1, the first radials are only just visible externally, though the second are relatively much longer than in the mature form. All the arm-joints are provided with pinnules, though the lowest ones are quite small, that on the second brachial being much more like its successor than is the case in the adult; while there is but little trace of any expansion in the lower joints of the genital pinnules.

The spines of the cirri are present from the first, but those on the calyx, arms, and pinnules do not appear till after the Pentacrinoid stage, while the lateral flattening of the radials and lower brachials is one of the last characters to make its appearance. This, of course, is only to be expected, for it is only when the arms become tolerably wide that their lower portions come into close lateral contact.

In the arms of the larvæ, as in the pinnules of the adult, the covering plates are supported upon imperfect side plates. These alternate very regularly with the sacculi, which are relatively much more abundant than in the adult.

12. *Antedon echinata*, n. sp. (Pl. XXI. figs. 4, 5).

Specific formula— $A. \frac{b}{b}$.

Description of an Individual.—Centro-dorsal a low hemisphere with about twenty cirri on its sides. These have some twenty-five joints, of which the fifth is longest, with a slight dorsal projection at its distal edge which becomes a spiny keel in the short later