

occasionally persistent in the adult state. There are six pairs in the first series; *six* in the second; *twelve* in the third; *twenty-four* in the fourth; *forty-eight* in the fifth, and so on.

The compartment between the two septa of each pair opens at top into the interior of a tentacle, and thus the cavity in each tentacle has its special corresponding compartment below. This tentacular compartment is properly, as first recognized by Prof. Verrill, the *ambulacral*, since each corresponds in position and function to an ambulacral or tentacle-bearing section in the Echinoderms and other Radiate animals.

Although polyps are true Radiates, they have something of the antero-posterior (or head-and-tail) polarity, with also the right-and-left, which is eminently characteristic of the animal type. This is manifested in the occurrence in some polyps of a ray on the disk different in colour from the general surface; of one tentacle larger than the others, and sometimes peculiar in colour; of two opposite septa in a calicle or polyp-cell larger than the others, and sometimes meeting so as to divide the cell into halves. The first of these marks the author has observed in a Zoanthid, as mentioned in his Report on Zoöphytes at page 419, and represented on plate 30: and the last is very strongly developed in the cells of many Pocilloporæ (ib. p. 523). Gosse and many other authors have drawn attention to the one large tentacle, and the fact that it lies in the direction of the line of the mouth. Prof. H. James Clark, in his "Mind in Nature," states that the order in which the fleshy septa and the tentacles in an Actinia are developed has direct reference to the right and left sides of the body, and that there is only one plane in which the body can be divided into two halves, and this is that corresponding with the longer diameter of the stomach, or the direction of the mouth. Mr. A. Agassiz has shown that in Actiniæ of the genus Arachnactis, the new septa and tentacles are developed on either side of the one chief or anterior tentacle: and Prof. Verrill, that in Zoanthids they are formed principally on either side of this anterior tentacle and also of the opposite or posterior one, and much less rapidly, if at all, along the sides intermediate. This chief-tentacle marks properly