attached close to the œsophageal groove, which is also ventral. Besides these there are fifteen pairs of septa on either side (if the aggregate number of pairs of septa is increased to thirty-three, there are sixteen on one side and fifteen on the other), which consist of (1), a pair of septa adjoining the dorsal directive pair, and having the dorsal septum larger than the ventral; (2), thirteen pairs of septa situated towards the ventral aspect of the body, and having the ventral septum larger than the dorsal; and (3), a pair consisting of two macrosepta and lying between the two above mentioned groups. The distinction then between *Epizoanthus parasiticus* and *Epizoanthus axinellæ* on the one hand and the true *Zoanthus* on the other, is that in the latter the two systems are separated by microsepta, in the former by macrosepta, so that a pair of septa is madeup of one septum from either system.

The remarks made by me on the septal canals and mesenteric filaments of *Zoanthus* apply equally to *Epizoanthus parasiticus*. The reproductive organs were well developed, and seemed to lie only on the macrosepta, and that without exception; they were testes in the specimen which I examined in transverse section.

The individual animals of the *Epizoanthus* colony were united at the base by a tolerably thick crust, in which numerous canals run from one polyp to another; all the canals extend with repeated anastomosis in one and the same layer of the cœnenchyma. Hence if we cut a colony through longitudinally, the cœnenchyma is separated by the vascular stratum into a broader external and a narrower internal layer; the character of the tissue is the same in both, except that the inner layer is without branched fibres. The gastric spaces of all the polyps reach as far as the vascular stratum, in which lies a very large canal surrounding the opening of the shell like a ring (Pl. III. fig. 9).

The hollow of the shell enclosed by the cœnenchyma is lined by a chitinous membrane, which lies firmly attached to the thin layer of the cœnenchyma, and has a structure of its own. Two lamellæ are separated from one another by an interspace, and are connected by perpendicular septa parallel to one another which divide the interspace into numerous tubes and smaller prismatic spaces. I leave it an open question whether this chitinous membrane is the last remains of the Gasteropod shell or a cuticular formation secreted by the superficial epithelium of the *Epizoanthus*.

The mode of life of *Epizoanthus parasiticus* is the same as that of *Epizoanthus papillosus* and *Epizoanthus cancrisocius*, the former of which was described by Gray in the Proceedings of the Zoological Society, 1867, p. 237, the latter by Studer in the Monatsberichten der Berliner Academie, Jahrg., 1878, p. 547. Both forms settle on Gasteropod shells, occupied by a hermit crab, and completely absorb the calcareous parts of the shell. The upper section of the wall of *Epizoanthus papillosus* appears to be of the same nature as that of *Epizoanthus parasiticus*. I draw this inference from Gray's words in the description given of the individual polyps, "The apex when expanded is flat, with close, radiating white lines." It is therefore still a question whether these are merely allied