

The free margin of each septum is occupied by the mesenteric filament. The upper section is tripartite, the lateral ciliated streaks still lying beside the median glandular streak, whilst the lower section is simple, and formed merely of the glandular streak. This last comports itself differently on the different septa; in the septa of the first and second orders it is disposed in meandrous curves and coiled into a thick mass, which, in the septa of the first order, is visible beneath the margin of the œsophagus, whilst it is covered by the latter in the septa of the second order; in the other septa it appears as a slightly waved border. The acontia common to all *Sagartiæ*, and of which one at least is found in each septum—even in the small septa of the fourth order—arise at a little distance from the lower end of the mesenteric filaments. In transverse section the acontium shows a roundish figure flattened somewhat to an oblong (Pl. XII. fig. 10). On one of the longer sides there is an indentation, the expression of a groove which runs on the acontium as far as its point of attachment to the septum. Histologically we can distinguish an axis of connective tissue and a cylindrical epithelium, containing numerous nematocysts, especially on the side of the acontium remote from the groove. In *Calliactis parasitica*, we had previously distinguished fine muscular fibres and a layer of nerve fibres; these doubtless exist in *Cereus spinosus*, but the specimen was not well enough preserved to admit of their being made out plainly.

If we open a *Cereus spinosus* by a longitudinal incision we can distinguish the different pairs of septa, without further dissection, by the constitution of the reproductive organs and of the mesenteric filaments (fig. 5). The pairs of septa of the first order (h^1) are recognisable by the thick coils of mesenteric filaments, which spring from them below the œsophagus, whilst the pairs of septa of the second order (h^2), the reproductive organs and mesenteric filaments of which are usually completely covered by the œsophagus, appear only as sharply defined lamellæ with smooth margins; in the septa of the third order (h^3), in which the coils of filaments are wanting, the ends of the reproductive organs project from beneath the lower margin of the œsophagus, whilst the pairs of septa of the fourth order are so small as to be quite out of sight.

Phellia, Gosse.

Sagartidæ with a rough, cuticular sheath, which is firmly attached to the epithelium, and leaves the upper part of the wall free; the latter is smooth and becomes inverted during contraction; cinclides not demonstrable anatomically; tentacles small, and few in number.

The cuticular sheath, which we have already found in *Cereus spinosus*, is still more strongly developed in a number of *Actiniæ*, but is here confined at the same time to one part of the wall, leaving the other part free. Close underneath the corona of tentacles, the free part of the wall forms a broader or narrower ring,