

protruded from this cell the body has a cylindrical figure, its upper disk surrounded by eight short pectinated hollow tentacula, in the centre of which the mouth is situated, leading into a distinct stomach, which is as it were suspended in the centre, and sustained there by eight thin membranous septa, which, stretched between the outer surface of the stomach and the inner surface of the external tunic, divide the intervening space into eight equal compartments. The base of the stomach is perforated like the mouth, and from the margin of the aperture depend eight white tortuous filaments, which hang, either loose or connected to a continuation of the membranous septa, in a wide abdominal cavity, immediately underneath the stomach. This cavity is again continuous with a tube which penetrates the common mass, communicating freely by anastomoses with the tubes of other polypes, and with a fine net-work of capillary vessels, formed in the spaces between them, by means of small apertures in their walls. (Fig. 5. \*) In this manner there is effected a very free communication between the individuals of each common mass, so much so, that the water swallowed by any one polype of it rapidly permeates the whole. † By tracing the course of the fluid we may obtain a clearer view of the organization. The water then enters the mouth, and passes through the cylindrical gullet and stomach into the abdominal cavity; thence part of it, flowing through the canals formed by the septa stretched between the stomach and outer tunic, passes into the tentacula with whose cavity the canals are continuous, and by means of small apertures in the sides of the hollow tentacula, the water penetrates and unfolds the cilia, with which these tentacula are fringed. By the distension from the water thus introduced, the body of the polype and its tentacula are forced beyond the surface, and every organ fully displayed. Another portion of the water in the abdominal cavity passes into the tube continuous with it, fills it and the others in connection with it, and by means of holes in their parietes finds access into the intermediate capillary net-work, so that the whole mass is permeated with the fluid, and all and every

\* A longitudinal section of *Aleyonium digitatum*.

† Milne-Edwards has proved this by a decisive experiment.—*Ann. des Sc. Nat.* iv. 328, and 338, an. 1835.