

testicles formed by numerous canals twisted around one another: they were much developed and placed along-side the ovaries, which they equalled in number." Their real nature was ascertained by the detection of spermatoc animalcules in them; and these were also found in the *Act. effœta*.—*Ann. des Sc. Nat. tom. viii. p. 283, &c.*

### 3. *Structure of the Hydra.* Page 99.

Augustus Josephus Corda has recently published a memoir on the anatomy of *Hydra fusca*, where he shews that this is greatly more complicated and curious than has hitherto been imagined. According to Corda each tentaculum forms a slender membranaceous tube filled with an albuminous nearly fluid substance intermixed with some oleaginous particles: this substance swells out, at certain definite places, into denser wart-like *nodules* which are arranged in a spiral line. These are the tubercles noticed by all observers, but no one had hitherto developed their structure. Corda says that each *nodule* is furnished with several spinigerous vesicles used as organs of touch, and with a very singularly constructed organ for catching the prey. The organ of touch consists of a fine sac enclosing another with thicker parietes, and within this there is a small cavity. From the point where the two sacs coalesce above, there projects a long *cilium* or capillary spine which is non-retractile, and apparently immoveable. Surrounded by these cilia, and in the centre of the *nodule*, is placed the captor organ, called the *hasta*. This consists of an obovate transparent sac, immersed in the nodule, with a small aperture even with the surface. At the bottom of the sac, and within it, there is a saucer-like vesicle, on whose upper depressed surface is seated a solid ovate corpuscle that gives origin to, or terminates in, a calcareous sharp *sagitta* or arrow, that can be pushed out at pleasure, or withdrawn till its point is brought within the sac. When the *Hydra* wishes to seize an animal, the *sagittæ* are protruded, by which means the surface of the tentacula are roughened, and the prey more easily retained: and Corda believes that a poison is at the same time injected, which will explain the remarkable fact of the almost instant death of the prey.

The *nodules* of the tentacula are connected together by means of four muscular fibres or bands which run up forming lozenge-shaped spaces by their intersections. These are the *extensor* muscles of the tentaculum. They are again joined together by transverse fibres, which Corda believes to be *adductor* muscles, and to have also the power of shortening the tentacula. Corda states that there is no communication between the tube of the tentaculum and the cavity of the body.

The lip of the mouth is armed with *hastæ* and *cilia* similar to those of the tentacula, but the rest of the body is destitute of them.

The skin consists of two strata, the exterior largely cellular, the inner with cells of a much smaller size. In the latter the gemmules lie. Under it there is a layer consisting of densely aggregated cells, filled and coloured with minute granules. This layer Corda regards as muscular; and within it there is another layer which, from its texture and position, he says may be called the villous coat. From the inner surface of this, numerous *villi* project into the stomachal cavity, collected into masses which are divided from each other by passages destitute of villi. Each of the villi is in the form of a cylindro-conical pellucid vesicle filled with the nutrient matter; and most of them are perforated on the tip while