

deciduous parts, but on the general fleshy substance of the body.”*

The polypes are placed in the cells within which, with the exception of the Tubulariæ, they can hide themselves entirely when danger threatens. When at rest and in their native sites, they expand their tentacula and push them far beyond the rim of their cups, in readiness to arrest any small worm or crustaceous insect which may float within their circle.

“ Utque sub æquoribus deprensus polypus hostem

“ Continet, ex omni dimissis parte flagellis.”

OVID. *Met.* vi. 366.

These tentacula are always simple but roughish, (Fig. 9 *c*,) and in the centre of the disk round which they are arranged we perceive the oral aperture (*d*,) leading to a stomachical cavity without intestine or other chylopoetick viscus. The body is somewhat globular, soft and irritable; and it is prolonged posteriorly down the stalk or tube to be united with the central pulp which fills the branches and stem, (*e*,) so that in this manner all the polypes of the same polypidom are connected together by a living thread, and constitute a family whose objects and interests are identical, and whose workings are all regulated by one harmonious instinct.

“ Unconscious, not unworthy, instruments,

By which a hand invisible was rearing

A new creation in the secret deep.”

Or if, with Linnæus and Cuvier, we suppose that the “ whole composure makes one animal,” this may be described as a sort of hydra divided, after the manner of a tree, into many or innumerable branches, from each of which pullulate one or more armed heads to capture and digest the prey that is to serve for the nutriment of their common trunk.

The reproductive gemmules of Tubularia and Coryne are generated in the interior and extruded near the base of the tentacula; but in all the other genera they are produced in external vesicles, which were therefore appropriately named by Ellis the matrices or ovaries, and which we have already mentioned as being larger than the cells and irregular in their distribution. They are produced at certain seasons only, most commonly in spring, and fall off after the maturity and discharge of their con-

* Grant's Outlines of Comp. Anatomy, p. 14.