

No trace of a nervous or vascular system of any kind has been detected, nor is there any organ of sense, but the polypes are notwithstanding very sensible of external impressions. * When left undisturbed in a glass of fresh sea water, they push their tentacula beyond the mouth of the cell by straightening the body; and then expanding them in the form of a funnel or bell, they will often remain quiet and apparently immoveable for a long time, presenting a very pretty and most interesting object to an observer of "the minims of nature." If, however, the water is agitated they withdraw on the instant, probably by the aid of the posterior ligament or muscle;—the hinder part of the body is pushed aside up the cell, the whole is sunk deeper, and by this means the tentacula, gathered into a close column, are brought within the cell, the aperture of which is shut by the same series of actions. The polypes of the same polypidom often protrude their thousand heads at the same time, or in quick but irregular succession, and retire simultaneously or nearly so, but at other times I have often witnessed a few only to venture on the display of their glories, the rest remaining concealed; and if, when many are expanded, one is singled out and touched with a sharp instrument, it alone feels the injury and retires, without any others being conscious of the danger, or of the hurt inflicted on their mate.

Of the anatomy of the hydraform polypes a sketch has already been given in the beginning of this chapter. They differ from the ascidian in their figure, which is somewhat globular or cylindrical and straight; in the position of the body, which is vertical; in the homogeneity of their composition, which is a semitransparent glairy gelatine, full of microscopic coloured granules; † and very remarkably, in being contractile at every

que je regarde comme analogues au foie."—Fig. 2 represents the polype of *Vesicularia imbricata* highly magnified. It is copied from Thompson's *Zool. Ill. Memoir v. pl. i. fig. 4.*

* "But as we perceive, in these animals, phenomena which take place by the medium of nerves in animals of a more elevated order, that is to say, sensibility and voluntary motion, it is not improbable that in them the nervous substance is mixed with their gelatinous or mucous mass, without being demonstrable as a particular tissue."—Tiedemann's *Comp. Phys. p. 64.*

† Trembley having ascertained that the colour of the polype resides in these granules, and that it varies with the quality of their food, of which the nutritive part or chyme passes first into the granules of the stomachal cavity and then