

In order to form a clear notion of the object of Providence in thus, as it were, taking certain organs from locomotion, and forming a new set for that purpose, and multiplying those connected with the seizing and mastication of the food of the animals in which this metamorphosis takes place, it would be necessary to watch their proceedings in their native element, the water, to ascertain the nature of their food, their mode of taking it, and other circumstances connected with its conversion into a pulp proper for digestion; but as few can have an opportunity of doing this, we can only conjecture that this multiplicity of organs is rendered necessary by the circumstances in which they are placed, and the element they inhabit; for, as we have seen, no such conversion occurs in the *terrestrial* Crustaceans; probably the denser medium requires a more complex structure and more powerful action in the instruments connected with the nutriment of the animal.

Having considered these instances of the *legs* of Hexapods being, as it were, metamorphosed into organs more especially connected with nutrition, I shall next mention, more briefly, some cases in which the oral organs themselves are modified to discharge *other* functions than what is usually their primary one.

To begin with the *Arachnidans* or spiders. In these the two-jointed *mandibles* or cheliceres, as Latreille calls them, are not organs of mastication solely; for though, from the vast strength and power of the first joint and its flat internal surface, we may conjecture that it assists in pressing the juices out of their prey, yet at the extremity of the second is a poison fang, being furnished, like the tooth of a viper or centipede, with a pore for emitting venom, which, though not easily discovered in the smaller species, is visible under a lens in the larger; with these fangs, which