

lancets.* In the *Gnat*, they are five or six in number, finer than a hair, exceedingly sharp, and generally barbed on one side. In the *Tabanus*, or horse-fly, they are flat like the blade of a knife. These instruments are sometimes constructed so as to form, by their union, a tube adapted for suction. In the flesh-fly, the proboscis is folded like the letter Z, the upper angle pointing to the breast, and the lower one to the mouth. In other flies there is a single fold only.

Those insects of the order *Hymenoptera*, which, like the bee, suck the honey of flowers, have, together with regular jaws, a proboscis formed by the prolongation of the lower lip, which is folded so as to constitute a tube: this tube is protected by the mandibles, and is projected forwards by being carried on a pedicle, which can be folded back when the tube is not in use. The mouths of the *Acephalous Mollusca* are merely sucking apertures, with folds like lips, and without either jaws, tongue, or teeth, but having often tentacula arising from their margins.

Among fishes, we meet with the family of *Cyclostomata*, so called from their having a circular mouth, formed for suction. The margin of this mouth is supported by a ring of cartilage, and is furnished with appropriate muscles for producing adhesion to the surfaces to which it is applied; the mechanism and mode of its attachment being similar to that of the leech. To this family belong the *Myxine* and the *Lamprey*. So great is the force of adhesion exerted by this sucking apparatus, that a lamprey has been raised out of the water with a stone, weighing ten or twelve pounds, adhering to its mouth.

Humming birds have a long and slender tongue, which can assume the tubular form, like that of the butterfly or the bee, and for a similar purpose, namely, sucking the juices of flowers. Among the mammalia, the *Vampire Bat* affords another instance of suction by means of the tongue, which

* Kirby and Spence's Entomology, vol. iii. p. 467.