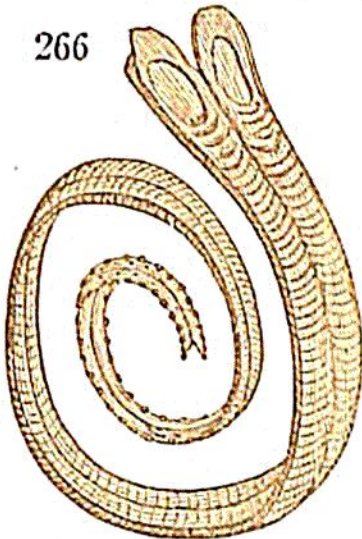


ordinary mouth, a tube also provided for suction, in a different part of the body, but leading into the same stomach.\*

When the instrument for suction extends for some length from the mouth, it is generally termed a *proboscis*: such is the apparatus of the butterfly, the moth, the gnat, the house fly, and other insects that subsist on fluid aliment. The proboscis of the *Lepidoptera*, (Fig. 266,) is a double tube, con-



structed by the two edges being rolled longitudinally till they meet in the middle of the lower surface, thus forming a tube on each side, but leaving also another tube, intermediate to the two lateral ones. This middle tube is formed by the junction, of two grooves, which, by the aid of a curious apparatus of hooks, resembling those of the laminae of a feather already described,† lock into each other, and can be either

united into an air tight canal, or be instantly separated at the pleasure of the animal. Reaumur conceives that the lateral tubes are intended for the reception of air, while the central canal conveys the honey, which the insect sucks from flowers, by suddenly unrolling the spiral coil, into which the proboscis is usually folded, and darting it into the nectary.‡

In the *Hemiptera*, the proboscis is a tube, either straight or jointed, guarded by a sheath, and acting like a pump. The *Diptera* have a more complicated instrument for suction, consisting of a tube, of which the sides are strong and fleshy, and moveable in every direction, like the trunk of an elephant; it has at its extremity a double fold, resembling lips, which are well adapted for suction. The gnat, and other insects which pierce the skin of animals, have, for this purpose, instruments, termed, from their shape and office,

\* Phil. Trans. for 1822, 442.

† Volume i. p. 393.

‡ Kirby and Spence's Entomology, vol. ii. p. 390.