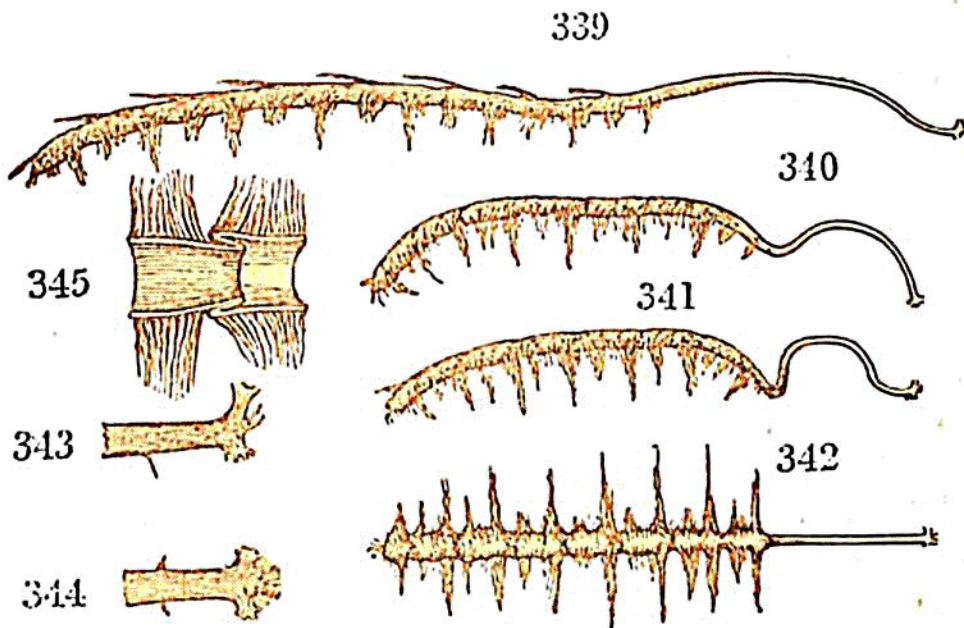


which may, in their contracted state, corresponding to the diminished demands of the system, have generally escaped detection. In confirmation of these views, it may be stated, that several observers have at length, succeeded in tracing minute branches, proceeding in different directions, from the dorsal vessel, and distributed to various organs. The division of the anterior part of the dorsal vessel into descending branches was noticed by Comparetti. Dugès has observed a similar division of this vessel in the corselet of several species of *Phalæna*, and farther ramifications in that of the *Gryllus lincolni*: and Audouin has traced them in many of the Hymenoptera.\*

\* Annales des Sciences Naturelles, xv. 308.

The figures which follow (from 339 to 345) are representations, of the natural size, of the dorsal vessel of the *Sphinx ligustri*, or Privet Hawk-moth, which has been dissected in its three different stages, with great care, by Mr. Newport, from whose drawings these figures have been engraved, and to whom I am indebted also for the description which follows:—

The dorsal vessel of this insect is an elongated and gradually tapering ves-



sel, extending from the hinder part of the abdomen, along the back, towards the head; and furnished with valves, which correspond very nearly in their situation to the incisions of the body. During the changes of the insect from the larva to the imago state, it undergoes a slight modification of form. In every state it may be distinguished into two portions, a *dorsal* and an *an-*