

acquires still greater compactness, assumes a more globular form, and has no central perforation.

These different forms of structure are also exemplified in the progress of the development of the higher Crustacea: thus, in the *Lobster*, the early condition of the nervous system is that of two separate parallel cords, each having a distinct chain of ganglia, as is the case in the *Talitrus*: then the cords are observed gradually to approximate, and the ganglia on each side to coalesce, as represented in the *Cymothoa*; and at the period when the limbs begin to be developed, the thoracic ganglia approach one another, unite in clusters, and acquire a rapid enlargement, preparatory to the growth of the extremities from that division of the body; the abdominal ganglia remaining of the same size as before. The cephalic ganglion, which was originally double, and has coalesced into one, is also greatly developed, in correspondence with the growth of the organs of sense. The next remarkable change is that taking place in the hinder portions of the nervous cords, which are shortened, at the same time that their ganglia are collected into larger masses, preparatory to the growth of the tail and hinder feet; so that throughout the whole extent of the system the number of ganglia diminishes in the progress of development, while their size is augmented.

All *Insects* have the nervous system constructed on the same general model as in the last mentioned classes; and it assumes, as in the Crustacea, various degrees of concentration in the different stages of development. As an example we may take the nervous system of the *Sphinx ligustri*, of which representations are given in the larva, pupa, and ima-

feet (f,) and the abdominal nervous trunk (n;) the cephalic ganglion (c,) communicating by means of two nervous cords (o,) which surround the œsophagus and entrance into the stomach (s,) with the thoracic ganglion (b;) and sending off the optic nerve (e) to the eyes (x,) and the motor nerves (m,) to the muscles of those organs; and also the nerves (a) to the internal antennæ, and the nerves (x) to the external antennæ (A.)