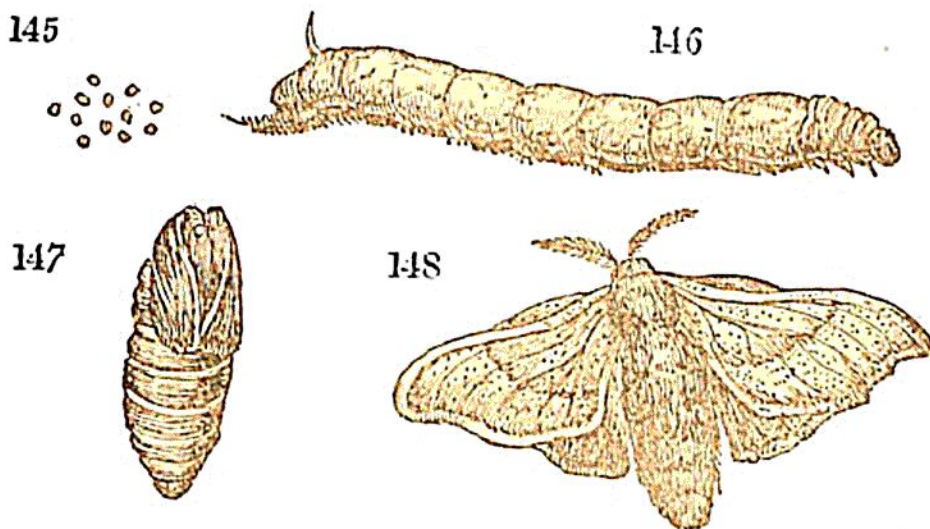


ing parts, and thus are the foundations laid of all the endless diversities which characterize the several species belonging to each tribe and family.

In the progress of development, we may recognise two principles, which, though apparently opposite to each other, concur and harmonize in their operation: these are *expansion* and *concentration*. Thus, while those segments of body which follow the head are greatly enlarged, in order to support the more recently developed organs of progressive motion, they are also more consolidated, and rendered stronger by the union of several pieces which were before separate. The posterior segments, having no such appendages to support, are less dilated, and the whole body is much shortened by the approximation of the segments, which, in this way, compose the abdomen, or hinder division of the insect.

The progress of the metamorphoses of insects is most strikingly displayed in the history of the *Lepidopterous*, or butterfly and moth tribe.\* The egg, which is deposited by the butterfly, gives birth to a caterpillar; an animal, which,



in outward shape, bears not the slightest resemblance to its parent, or to the form it is itself afterwards to assume. It has, in fact, both the external appearance, and the mechanical structure, of a worm. The same elongated cylindric

\* The four periods of the existence of the *Bombyx mori*, or the moth of the silk-worm, are shown in the annexed engravings: Fig. 145 are the eggs; Fig. 146, the *Larva*, or caterpillar; Fig. 147, the *Pupa*, or chrysalis; and Fig. 148, the *Imago*, or perfect insect.