

§ 5. *Terrestrial Larvæ.*

THE movements of larvæ that are not aquatic are perfectly analogous to those of the Annelida, which they much resemble in their outward form and mechanical structure. The muscles by which the annular segments of the body are moved, are exceedingly numerous, and beautifully arranged with reference to the motions they are intended to effect. The investigation of the structure of these minute organs has long exercised the talents of the most skilful entomologists, and still offers much that remains to be explored. The researches of Lyonet, already alluded to, on the anatomy of the larva of the *Bombyx Cossus*,* of which he has published an elaborate description, accompanied by admirable engravings, will ever remain a splendid monument of patience and ingenuity in overcoming the difficulties which impede this kind of inquiry. In the body and the limbs of this caterpillar, Lyonet counted above 4000 separate muscular bands, all arranged with the most perfect symmetry, and adapted, with wonderful precision, to the performance of the required effects.

In these larvæ, as in the simpler forms of the Annelida, progression is often accomplished solely by the alternate contraction and extension of the annular segments, aided, in many cases, by short hairs, and frequently, also, by a slimy secretion which exudes from their bodies. Many larvæ, which are destitute of feet, move onwards by first coiling the body into a circle, making the head and the tail meet, and then springing forwards by a sudden extension of the back, producing an effect like the unbending of a bow. By an artifice of the same kind, some larvæ contrive to leap to a considerable distance, by the violent effort which they make in unfolding the curvatures of their bodies.

Some larvæ avail themselves of their jaws in order to fix the head, and drag the rest of the body towards it. In this manner do the larvæ of the *Cerambyx*, or capricorn beetle, advance

* *Cossus ligniperda*. Fabricius.