

parently most remote, and organs destined for widely different uses: so that even when there has been a complete change of purpose, we still perceive the same design followed, the same model copied, and the same uniformity of plan preserved in the construction of the organs of every kind of mastication; and there prevails in them the same unity of system as is displayed in so marked a manner in the conformation of the organs of progressive motion. The jaws, which, in one tribe of insects, are formed for breaking down and grinding the harder kinds of food, are, in another, fitted for tearing asunder the more tough and fibrous textures; they are fashioned, in a third, into instruments for taking up the semi-fluid honey prepared by flowers; while, again, in a fourth, they are prolonged and folded into a tubular proboscis, capable of suction, and adapted to the drinking of fluid aliment. Pursuing the examination of these organs in another series of articulated animals, we find them gradually assuming the characters, as well as the uses, of instruments of prehension, of weapons for warfare, of pillars for support, of levers for motion, or of limbs for quick progression. Some of these remarkable metamorphoses of organs have already attracted our attention, in a former part of this treatise.* Jaws pass into feet, and feet into jaws, through every intermediate form; and the same individual often exhibits several steps of these transitions; and is sometimes provided also with supernumerary organs of each description. In the Arachnida, in particular, we frequently meet with supernumerary jaws, together with various appendices, which present remarkable analogies of form with the antennæ, and the legs and feet of the Crustacea.

The principal elementary parts which enter into the composition of the mouth of an insect, when in its most perfect state of development, are the seven following: a pair of upper jaws, a pair of lower jaws, an upper and a lower lip, and a tongue.† These parts in the *Locusta viridissima*, or com-

* Vol. i. p. 206.

† All these parts, taken together, were termed by Fabricius *instrumenta*