

ance, and all the developments of their internal mechanism, are expressly directed. Wings are added to the frame only in the last stage of its completion; after it has disencumbered itself of every ponderous material that could be spared, after it has been condensed into a small compass, and after it has been perforated in all directions by air-tubes, giving lightness and buoyancy to every part. Curiously folded up in the pupa, the wings there attain their full dimensions, ready to expand whenever the bandages which surround them are removed. No sooner is the insect emancipated from its confinement, than these organs, which are composed of duplicatures of a dense, but exceedingly fine membrane, identical in its composition with the general integuments, begin to separate from the sides of the body, and to unfold all their parts. Their moisture rapidly evaporates, leaving the delicate film dry and firm, so as to be ready for immediate action. The fibres, or *nervures*, as they are called, form a delicate net-work, for the support of this fine membrane, like the frame of the arms of a windmill, which supports the canvass spread over them. The microscope shows that these fibres are tubular, and contain air; a structure the most effectual for conjoining lightness with strength; and many entomologists are of opinion that the insect has the power, during the act of flying, of directing air into the *nervures*, so as to dilate them to the utmost, and render them quite tense and rigid.

In the great majority of insects, the wings are four in number; of which the first pair are, as we have seen, affixed to the *mesothorax*, and the second to the *metathorax*. These two segments of the thorax, composing what has been termed the *alitrunk*, constitute the most solid portion of the skeleton, and are frequently strengthened by ridges, and other mechanical contrivances for support. The superior extremities of these supports, which have been compared to the clavicles, or furcular bones of birds, are always curved inwards. This part of the trunk requires to be alternately dilated and contracted during flight; and, hence,