

with among the innumerable hosts of beings which rank under this widely extended department of the animal creation. In these minute creatures may be discovered all the mechanical instruments and apparatus required for the execution of those varied movements which we witness in the larger animals, and which, though almost peculiar to the different classes of those animals, are here frequently united in the same individual. Insects swim, dive, creep, walk, run, leap, or fly, with as much facility as fishes, reptiles, quadrupeds, or birds. But besides these, a great number have also movements peculiar to themselves, and of which we meet with no example in other parts of the animal kingdom.

In attempting to delineate a sketch of the movements of insects, and of the mechanism by which they are performed, I am compelled, by the great extent of the subject, to confine myself to very general views: and must refer such of my readers as are desirous of fuller information on this subject to the works of professed entomologists.

The mechanical conditions of an insect in its several states of larva, pupa, and imago, are so widely different, that it will be necessary to consider each separately. In many tribes, however, the difference between the larva and the perfect insect is much less considerable than in others. Those belonging to the orders of Hemiptera and Orthoptera, for example, come out of the egg with nearly the same form as that which they have in the mature state; excepting that they are without wings; these organs being added in the progress of their growth, and constituting, when acquired, their perfect or *imago* condition.

§ 4. *Aquatic Larvæ.*

MANY insects, which, when fully developed, are the most perfectly constructed for flying, are, when in the state of larvæ, altogether aquatic animals. Some of them are destitute of feet, or other external instruments of motion, swimming only by means of the alternate inflections of the body from side to side, in the same manner as the Nais, and the Lecch.