

insect, the water boatman, (*notenecta*,) are so fitted that he always swims upon his back. Another, the bat-mite, (*pteroptus*,) has the power of instantly throwing its legs upwards so as to walk upon its back. Another, the dragon fly, can project a stream of water from its body, and thus be driven forward on the principle of the rocket.

Not less variety exists in the organs of respiration. We are apt to feel that breathing can be performed only by lungs. But the membranous air bags of reptiles are quite different. Frogs and tortoises swallow air, and hence have been known to live more than a month with their mouths and nostrils closed; although there is reason to believe that the common opinion that frogs live for centuries without air, enclosed in stone, is unfounded. Fishes breathe by their gills, and insects by means of tubes in various parts of their bodies.

Man, too, finds it difficult to conceive how animals can exist without heads. But a large class that inhabit sea shells are called *acephala*,—that is, headless animals,—and the skill which they discover in the formation of those beautiful structures which form their habitations throws into the shade the architecture of that biped race who not only have heads, but boast that they constitute the head of this lower creation.

The delicate changes in the organs of vision to adapt them to the condition and wants of animals are among the most remarkable provisions of divine wisdom for their comfort. We cannot see well in water, because our eyes are fitted for the air; nor can fish see well in air, for the same reason. By using very convex spectacles we might have distinct vision in water; and so, were a whale disposed to take an excursion on land, the optician might doubtless provide him with a pair of spectacles through which he could see as well as many travellers of our own species have done. But his glasses