

the intervals between its imperfectly developed elements also membranous. All this renders the whole shell less compact, more flexible, and weaker; but the movements of the animal are quicker and more energetic.

These characteristic differences between the aquatic Chelonia and those that live on land are still more strongly marked in the genus *Trionyx*, or soft tortoise; which is destitute of scales, and in which many of the pieces that are bony in the tortoise are replaced by simple cartilage or membrane.

The enormous weight of the shell of the turtle would be a serious impediment to the motion of this animal in the water, were there not some provision made for diminishing the specific gravity in the body. This purpose is answered by the great capacity of the lungs, which, when inflated with air, nearly fill the thorax, and give great buoyancy to the whole mass. Thus, wherever there exists a supposed inconvenience, dependent on the fulfilment of one condition, we are certain to meet with a compensation in the structure of some other part, and in the mode of executing some other function. An express provision for giving buoyancy has been made in the construction of the shell of a species of tortoise inhabiting the coasts of the Seychelle Islands. The under surface of the shell, instead of being gently concave, as in land tortoises, has a deep circular concavity in the centre, above four inches in depth, which, when the animal goes into the water, retains a large volume of air, buoying up the whole mass while it remains in that element.* The greater size of turtles, when compared with tortoises, is a farther instance of the superior facility with which organic growth proceeds in aquatic than in land animals formed on the same model of construction.

* Home's Lectures, vi. 37.