

with a beautiful net-work of pulmonary vessels. Other mollusca of the same order, which are more aquatic in their habits, have yet a similar structure, and are obliged at intervals to come to the surface of the water in order to breathe atmospheric air: this is the case with the *Onchidium*, the *Planorbis*, the *Lymnæa*, &c.

The structure of the pulmonary organs becomes gradually more refined and complicated as we ascend to the higher classes of animals. In all vertebrated terrestrial animals they are called *lungs*, and consist of an assemblage of vesicles, into which the air is admitted by a tube, called the *trachea*, or wind-pipe, extending downwards from the back of the mouth, parallel to the œsophagus. Great care is taken to guard the beginning of this passage from the intrusion of any solid or liquid that may be swallowed. A cartilaginous valve, termed the *epiglottis*, is generally provided for this purpose, which is made to descend by the action of the same muscles that perform deglutition, and which then closes accurately the entrance into the air-tube. It is an exceedingly beautiful contrivance, both as to the simplicity of the mechanism, and the accuracy with which it accomplishes the purpose of its formation. At the upper part of the chest the trachea divides into two branches, called the *bronchia*, passing to the lungs on either side. Both the wind-pipe and the bronchia are prevented from closing by the interposition of a series of firm cartilaginous ringlets, interposed between their inner and outer coats, and placed at small and equal distances from one another. The natural elasticity of these ringlets tends to keep the sides of the tube stretched, and causes it to remain open: it is a structure very analogous to that of the trachea of insects, or of the vessels of the same name in plants.

The lungs of Reptiles consist of large sacs, into the cavity of which the bronchia, proceeding from the bifurcation of the trachea, open at once, and without farther subdivision. Cells are formed within the sides of this great cavity, by fine membranous partitions, as thin and delicate as soap