

size. These tubes after they pass into the substance of the lungs they break up into other small tubes which pass all through the lungs and terminate into what is known as the air cells. These small tubes and air cells are lined inside by a very thin mucous membrane which is a continuation of the membrane lining the other organs already mentioned. Just inside this thin mucous membrane is found the capillary network of the lungs, and while the blood is slowly passing through this network of vessels it gives off to the air in the air cells carbonic acid gas and takes in the oxygen from the pure air while it is in the lungs.

The Lungs are the most important organs in connection with breathing, they are spongy, yellowish organs, two in number, one situated on the right side and the other on the left; the right lung is the largest on account of the left one having a hollow in its side for the heart. The lungs are separated by a partition known as the mediastinum, also by the heart which is in the folds of this partition and also by the large blood vessels and œsophagus or tube which passes on its way to the stomach. The lungs are made up of light elastic tissue and are full of air cells and tubes, they are very large while the animal is alive and fills up nearly the whole chest cavity, after death they collapse and are not nearly so large. Between the lungs and the ribs is found a serous membrane called the pleura or the lining membrane of the chest. It is made up of two folds, one being attached around the outer part of the lungs while the other is attached to the ribs at the side and at the back to the large curtain which separates the lungs from the bowels. The little glands situated in this membrane secrete an oily fluid which serves to lubricate these parts while the lungs are working in the chest so as not to cause friction. When this membrane becomes inflamed from a chill or injury it sets up the disease called pleurisy.

The trachea, or windpipe, bronchial tubes and air cells are sometimes compared to a tree, the windpipe being the trunk while the bronchial tubes and air cells represent the branches and leaves of the tree. The lungs are largely supplied by blood vessels and nerves.

Breathing in the horse consists of first drawing the pure air in and then forcing the impure air out. These two acts are performed by the muscles of the chest, part of them in contracting in such a manner as to dilate or enlarge the chest cavity and on