

In tracing the blood through the heart, commencing at the right auricle, we find the two large veins of the body, called the anterior and posterior vena cavae, which empty the impure blood of the body into the right auricle of the heart. It is there guarded by two small valves at the mouth of each vein, while the right auricle contracts, forcing the blood down through the hole in the septum into the right ventricle. It is there guarded by a valve to keep the blood from flowing back, while the right ventricle contracts and forces the blood up into the pulmonary artery, which passes only two or three inches above the heart and divides into two branches, one to the right lung and the other to the left lung. These again divide into other small arteries, which flow into what is known as the capillary network. This network is situated around the air cells of the lungs, where, by a process, the blood gives off carbonic acid gas, which is breathed out along with the air. The blood takes in the oxygen from the pure air, which changes the color of the blood from a black red to a bright red. This is a point of importance to note as it shows that stables should be well ventilated so that animals can have plenty of pure air. The blood now flows into the pulmonary veins, which carry the pure blood back to the heart to be emptied into the left auricle. Here these veins are guarded with valves so as not to allow the blood to flow back while the left auricle contracts to force the blood down through the opening mentioned before into the left ventricle. This opening is also guarded by valves so as not to allow the blood to flow back while the left ventricle contracts, with great force, to drive the blood up into the common aorta, the largest artery in the body, which passes above the heart two or three inches, and, just below the backbone, breaks into branches, one passing forward and supplying the parts of the body in front of the heart, the other branch passing backward under the spinal bones, supplying the parts of the body behind the heart.

The branch which goes forward runs under the spine just a few inches, where it breaks into other branches, some going to supply the shoulder and front leg; the other branches being two large ones, one passing on each side of the neck under the jugular vein, which are called carotid arteries. These give off small branches, as they pass up the side of the neck, to feed the muscles and other parts thereof, while just below the butt of the ear, this artery breaks into three large branches, which go to supply the brain and different parts of the head. In considering