is conducive to their mutual strength; for the fibres of each intermix and even co-operate in their actions, and both circulations are carried on at the same time; that is, both ventricles contract or close at the same instant; and the same applies to the auricles. The blood which has just returned from the body, and that from the lungs, the former by the venæ cavæ, the latter by the pulmonary veins, fill their respective auricles at the same instant; and both auricles, contracting at the same moment, discharge their contents simultaneously into their respective ventricles. In the like manner, at the moment when the left ventricle is propelling its aerated blood into the aorta, for the purposes of general nutrition, the right ventricle is likewise driving the vitiated blood into the pulmonary artery, in order that it may be purified by the influence of the air. Thus, the same blood which, during the interval of one pulsation, was circulating through the lungs, is, in the next, circulating through the body; and thus do the contractions of the veins, auricles, ventricles, and arteries, all concur in the same general end, and establish the most beautiful and perfect harmony of action.*

§ 4. *Distribution of Blood Vessels.*

In the distribution of the arteries in the animal system, we meet with numberless proofs of wise and provident arrangement. The great trunks of both arteries and veins, which carry on the circulation in the limbs, are conducted always on the interior sides, and along the interior angles

* Evidence is afforded of the human conformation being expressly adapted to the erect position of the body by the position of the heart, as compared with quadrupeds; for, in the latter, the heart is placed directly in the middle of the chest, with the point towards the abdomen, and not occupying any portion of the diaphragm; but, in man, the heart lies obliquely on the diaphragm, with the apex turned towards the left side.