

of the joints, and generally seek the protection of the adjacent bones. Grooves are formed in many of the bones, where arteries are lodged, with the evident intention of affording them a more secure passage. Thus, the principal arteries which supply the muscles of the chest, proceed along the lower edges of the ribs, in deep furrows formed for their protection. Arteries are often still more effectually guarded against injury or obstruction by passing through complete tubes of solid bone. An instance occurs in the arteries supplying the teeth, which pass along a channel in the lower jaw, excavated through the whole length of the bone. The aorta in fishes, after having supplied arteries to the viscera of the abdomen, is continued to the tail, and passes through a channel, formed by bony processes from the vertebræ; and the same kind of protection is afforded to the corresponding artery in the Cetacea. In the fore leg of the Lion, which is employed in actions of prodigious strength, the artery, without some especial provision, would have been in danger of being compressed by the violent contractions of the muscles; to guard against this inconvenience, it is made to pass through a perforation in the bone itself, where it is completely secure from pressure.*

The energy of every function is regulated in a great measure by the quantity of blood which the organs exercising that function receive. The muscles employed in the most vigorous actions are always found to receive the largest share of blood. It is commonly observed that the right fore leg of quadrupeds, as well as this right arm in man, is stronger than the left. Much of the superior strength is, no doubt, the result of education; the right arm being habitually more used than the left. But still the different mode in which the arteries are distributed to the two arms constitutes a natural source of inequality. The artery supplying the right arm with blood is the first which arises from the

* In like manner the coffin bone of the Horse is perforated for the safe conveyance of the arteries going to the foot.