

lowers its head, and gives considerable assistance to the muscles in raising it. In the deer and the ox, which toss their heads with force, and especially in the males, which are armed with antlers or horns, the muscles performing these motions are remarkably strong, and the spinous processes of the back particularly prominent. In the loins, on the contrary, we find the transverse processes more enlarged, for the purpose of giving a powerful mechanical purchase to the muscles which are inserted into them.

The chest of ruminant quadrupeds is compressed laterally, in order to allow room for the unrestrained motions of the anterior extremity; and the sternum projects so as to resemble the keel of a ship. The bones of the anterior extremity are not joined to the rest of the skeleton by means of any bone corresponding to a clavicle; but they are connected with the spine and ribs only by ligaments and muscles; so that the fore part of the trunk is, in fact, suspended between the limbs by its muscular attachments alone. This is not the case with the hind extremities; for their bones commence with the pelvis, which proceeds backwards from the sacrum, but with a considerable inclination downwards, and has a deep hemispherical cavity for the lodgement of the round head of the thigh bone. The lengthened forms of the iliac bones, and, also, of the scapula, provide for the application of muscles of considerable length, which are, consequently, capable of communicating to the parts they move a greater velocity than could have been effected by muscles of equal strength, but with shorter fibres.

Both the humerus in front, and the femur behind, are so short as to appear, on a superficial view, to form part of the trunk, being entirely enveloped and concealed by the large muscles connecting them with the body. The heads of the two humeri, in consequence of the absence of the clavicle, are brought very near each other, so as to occupy a situation as nearly as possible underneath the weight which the limb has to support.

The radius and ulna, which are the two bones of the fore-