

convexity, but it must be sufficiently strong to support the action of the masseter.

“To enable the animal to carry off its prey when seized, a corresponding force is requisite in the muscles which elevate the head; and this necessarily gives rise to a determinate form of the vertebræ, to which these muscles are attached, and of the occiput into which they are inserted.

“In order that the teeth of a carnivorous animal may be able to cut the flesh, they require to be sharp, more or less so in proportion to the greater or less quantity of flesh which they have to cut. It is requisite that their roots should be solid and strong, in proportion to the greater quantity and size of the bones which they have to break to pieces. The whole of these circumstances must necessarily influence the development and form of all the parts which contribute to move the jaws.

“To enable the claws of a carnivorous animal to seize its prey, a considerable degree of mobility is necessary in their paws and toes, and a considerable strength in the claws themselves. From these circumstances, there necessarily result certain determinate forms in all the bones of their paws, and in the distribution of the muscles and tendons by which they are moved. The fore arm must possess a certain facility of moving in various directions, and consequently requires certain determinate forms in the bones of which it is composed. As the bones of the fore arm are articulated with the arm bone, or humerus, no change can take place in the form or structure of the former, without occasioning correspondent changes in the form of the latter. The shoulder-blade, also, or scapula, requires a correspondent degree of strength in all animals destined for catching prey, by which it likewise must necessarily have an appropriate form. The play and action of all these parts require certain proportions in the muscles which set them in motion, and the impressions formed by these muscles must still farther determine the form of all these bones.

“After these observations it will easily be seen that similar conclusions may be drawn with respect to the hinder limbs of carnivorous animals, which require particular conformations to fit them for rapidity of motion in general; and that similar considerations must influence the forms and connections of the vertebræ and other bones constituting the trunk of the body, and to fit them for flexibility and readiness of motion in all