

and the straightness of the scapula; not having any occasion to turn the fore-leg, their radius will be solidly united to the cubitus, or at least articulated by a hinge-joint, and not by ball and socket, with the shoulder; their herbaceous diet will require teeth with a broad surface, to crush seeds and herbs; this breadth must be irregular, and for this reason, the enamelled parts must alternate with the osseous parts; this sort of surface compelling horizontal motion, for grinding the food to pieces, the articulation of the jaw cannot form a hinge so close as in carnivorous animals; it must be flattened, and correspond with the facing of the temporal bones, more or less flattened; the temporal cavity, which will only contain a very small muscle, will be small and shallow, &c. All these things are necessary deductions one from another, according to their greater or lesser universality; and so that some are essential and exclusively belonging to hoofed animals, and others, although equally necessary to those animals, are not peculiar to them, but are to be found in other animals, where the other general rules of structure admit of these also.

If we descend to the orders or subdivisions of the class of hoofed animals, and examine what modifications the general condition undergo, or rather what peculiar conditions are united to them, according to the character proper to each of these orders, the reasons of these secondary conditions begin to appear less palpable. We soon perceive, in general terms, the necessity of a digestive system more complicated in the species where the dental system is more imperfect; thus we might say that these should rather be ruminating animals, where such and such an order of the teeth is wanting; we may deduce from it a certain form of the œsophagus,