

consolidated into one piece in each jaw, forming, by their union the beak of the parrot, in a manner perfectly analogous to that which leads to the construction of the compound tooth of the elephant, and which I shall presently describe. The original indentations are obliterated as the beak advances in growth; but they are permanent in the bill of the duck, where the structure is very similar to that above described in the embryo of the parrot.

### § 3. *Mastication by means of Teeth.*

THE teeth, being essential instruments for seizing and holding the food, and effecting that degree of mechanical division necessary to prepare it for the chemical action of the stomach, perform, of course, a very important part in the economy of most animals; and in none more so than in the Mammalia, the food of which generally requires considerable preparation previously to its digestion. There exist, accordingly, the most intimate relations between the kind of food upon which each animal of this class is intended by nature to subsist, and the form, structure, and position of the teeth; and similar relations may also be traced in the shape of the jaw, in the mode of its articulation with the head, in the proportional size and distribution of the muscles which move the jaw, in the form of the head itself, in the length of the neck, and its position on the trunk, and, indeed, in the whole conformation of the skeleton. But since the nature of the appropriate food is at once indicated by the structure and arrangement of the teeth, it is evident that these latter organs, in particular, will afford to the naturalist most important characters for establishing a systematic classification of animals, and more especially of quadrupeds, where the differences among the teeth are very considerable; and these differences have, accordingly, been the object of much careful study. To the physiologist they present views of still higher interest, by exhibiting most