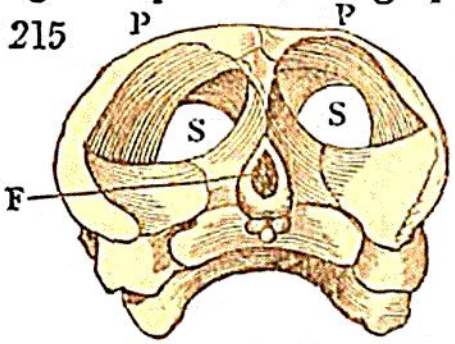
The immobility of the trunk is compensated, as far as regards the safety of the head, by the great flexibility of the neck which is composed of seven vertebræ, unencumbered by processes, and capable of taking a double curvature like the letter S, when the head is to be retracted within the carapace. These vertebræ are joined by the ball and socket articulation common to all the *existing* species of reptiles.* The articulation of the head with the neck is effected in the same manner; but it is interesting to remark that the occipital condyle, which is situated at the lower margin of the great aperture, though presenting a single convex surface, yet has that surface evidently divided into three parts; the two upper portions being lateral, and the lower portion in the middle. These three articular surfaces are seen immediately below the central aperture, F, in Fig. 215, which exhibits the skull of the *Testudo mydas*, viewed from behind. Although closely approximated, a faint line of demarcation, which divides their surface, indicates an incipient tendency to separate; we shall find that, in the farther steps of development which occur in the higher classes, this separation actually takes place by the obliteration of the lower articular surface, and the transfer of the two lateral surfaces to the condyloid processes arising from the development of the leaves of the occipital bone.

215



The singular conformation of the bones of the head, in the turtle, affords fresh evidence in support of the theory that these bones were originally vertebræ. The brain of this animal is exceedingly small; and yet the skull, when viewed from above, presents an appearance of great breadth, as if it enclosed a cavity of large dimensions. But if we look upon

so that it is not possible to draw inferences respecting the form of the latter from the mere inspection of the external shell.

* The expression of this fact is thus qualified, because it does not apply to many fossil or extinct species, such as the *Ichthyosaurus*.