SECTION III.

THE GENERA AND SPECIES OF CHELONIOIDÆ.

Three well marked genera, belonging to this family, occur along the coasts of the United States; namely, Chelonia, Eretmochelys, and Thalassochelys. The most important generic characters thus far observed relate to the structure of the mouth, and indicate much difference between them, in the manner of eating, and, perhaps, also in the kinds of plants upon which they feed. In CHELONIA the jaws act like straight-edged shears, cutting from behind forward; the mouth is bluntly curved about the front end; the outer alveolar edge of the lower jaw falls from the angle forward till just at the end, where it rises to a small, sharp projection; the bill along this edge is deeply serrated; its teeth act against sharp ridges, which cross, from above downward, the inner vertical surface of the bill of the upper jaw. In ERETMOCHELYS the jaws are drawn out forward, as it were, and the mouth is narrow and long; at the front end the cutting edges of the two jaws project toward one another beyond their general level, so that as the jaws close, these edges approach each other first at their front and hind ends; the cutting edge of the lower jaw is short, as the upper surface is rounded for some distance in front of the angle; the cutting edges are sharp, but not serrated. In THALASSOCHELYS the jaws are prolonged toward one another at the front ends into strong, pointed beaks, but not drawn out forward as in Eretmochelys; as the jaws close, they approach one another first at the front and hind ends; the alveolar edge of the lower jaw is deeply concave, and rises higher at the point than at the angles; the alveolar edge of the upper jaw rises on each side of the beak, and curves downward under the eye; the alveolar edges are blunt, and not serrated.

I am not able to express an opinion upon the value of the genera Halichelys and Lepidochelys, as I have not enjoyed an opportunity of examining myself the species upon which they are founded.[1] But I can state that there occur, among the fossils of the reefs of Florida, remains of a large marine Turtle which differs generically from the other species found alive about the reefs. I am indebted for a splendid skull of this Turtle to one of my pupils, Mr. Theodore Lyman, of Boston; and I have obtained myself other fragments of the

[1] These genera were proposed by Fitzinger in his Systema Reptilium; Halichelys for the Caretta atra, *Merr.*, Chelonia atra, *Auct.*, and Lepidochelys for the Chelonia olivacea, *Esch.*, of the Pacific.