

the fourth pair meet at their hind ends under the pelvis. So we have an irregular ellipse of true bone, narrowed backward. This ring does not touch the ribs. The ribs are broad and flat, firmly supported and kept in position by the corium resting upon them. The first pair is free from the second, and so is the tenth from the ninth. The ninth extends back by the side of the pelvis, and thus strengthens the narrow end of the carapace. The specimen examined has only some of the neck vertebræ preserved, among which is the last; this has very little motion at the joint with the first dorsal vertebra. There are no scales on any part of the skin; at least, there are none on the skin of the only genus thus far known to belong to this family.

The skeleton is light; the shield narrow and small in proportion to the size of the animal, and so placed with reference to the limbs as to be as little cumbersome as possible; the surrounding thick layer of corium is filled with fat; the body is rounded, and the wings and paddles are large and free. These characters seem to indicate that the animal travels far and fast. This assumption would certainly be justified, if it can be shown, as I shall attempt to do,<sup>1</sup> that the specimens of *Sphargis coriacea*, observed in Europe, had travelled across the Atlantic from the coasts of North America.

The head is high, short, and very broad at the hind end. As in the other members of the sub-order of Chelonii, the parietal, postfrontal, jugal, temporal, and mastoid bones are so extended as to form one continuous bony roof over the whole head back of the eyes, protecting the temporal muscles, and projecting somewhat back over the first neck vertebræ. In Sphargididæ the parietal bones are almost exclusively devoted to the formation of that arch, as they enlarge the cavity of the brain-box only by a depression in their thickness, and a sulcus formed by two low ridges, and do not reach down to the floor of the skull, the upper occipital bone extending entirely across the brain-box under them. The temporal bones are small, and reach outward, so as to add rather breadth than length to the bony arch, thus making more room for the temporal muscles. The lower edge of the temporal and jugal bones, at their meeting, is deeply concave, thus allowing a broader attachment of the muscles for the lower jaw, and leaving them here somewhat exposed. The floor of the skull is carried far forward, considerably beyond the end of the roof. The prefrontals do not extend beyond the frontals, but the front edges of both make the front end of the top of the skull; the roof formed by them does not extend more than half way over the nasal cavity. The os quadratum descends low down, and carries the articulation of the jaws far below the general level of the floor of the skull. The outer

<sup>1</sup> See, below, Chap. 3.