

bræ, and to allow of motion only in those of the neck, and of the tail. The former, accordingly, are all anchylosed together, leaving, indeed, traces of their original forms as separate vertebræ, but exhibiting no sutures at the place of junction. The canal for the spinal marrow is preserved, as usual, above the bodies of these coalesced vertebræ, and is formed by their united leaves; the arches being completed by the spinous processes. But these processes do not terminate in a crest as usual; they are farther expanded in a lateral direction, forming flat pieces along the back, which are united to one another by sutures, and which are also joined to the expanded ribs, so as to form the continuous plane surface of the carapace. The transverse processes of the vertebræ are well marked, but, though firmly united to the ribs, do not give rise to them; for the ribs, which are flattened and expanded, so as to touch one another along their whole length, are inserted below, between the bodies of every two adjoining vertebræ; while above, they are united by suture with the plates of the spinous processes.

This change in the situation of the ribs is the consequence of the change in their office. When designed to be very moveable, we find them attached either to the extremities of the transverse processes, or to the articular surfaces of a single vertebra; but where solidity and security are to be provided, they are always inserted between the bodies of two vertebræ. This we shall find to be the case also in birds, where the bones of the thorax are required to be immoveable. It is remarkable, indeed, that a great number of the peculiarities which distinguish the conformation of the chelonia from that of other reptiles, indicate an approach to the structure of birds; as if nature had intended this small group of animals to be an intermediate link of gradation to that new and important type of animals destined for a very different mode of existence.

The sterno-costal appendages which connect the ribs to the sternum, are, in most animals, cartilaginous; though occasionally we find them partially ossified. In the tortoise,