

single vertebra with which it is connected, or upon the two bodies of adjacent vertebræ; but in serpents the extremity of the head of the rib has two slightly concave articular surfaces, which play on a convex protuberance of the vertebra. This structure is attended with the advantage of preventing the ribs from interfering with the motions of the vertebræ upon one another. At their lower ends the ribs of one side have no connexion with those of the other, nor are they joined to any bone analogous to a sternum; for, except in the *Ophiosaurus* and the Blind-worm (*Anguis fragilis*), there is no vestige either of a sternum or scapula, in any animal of this class. Each rib terminates in a slender cartilage, tapering to a point, which rests, for its whole strength, upon the upper surface of one of the *scuta*, or broad scales on the lower side of the body. These *scuta*, which are thus connected with the ends of the ribs, and which are moved by means of short muscles, may be compared to hoofs, while the ribs themselves may be considered as performing the office of legs. The ribs move in pairs; and the scutum under each pair, being carried along with it in all its motions, and laying hold of the ground by its projecting edge, becomes a fixed point for the advance of the body. This motion, Sir E. Home observes, is beautifully seen when a snake is climbing over an angle to get upon a flat surface. When the animal is moving on a plane, it alters its shape from a circular or oval form, to one that approaches to a triangle, of which the surface applied to the ground forms the base. Five sets of muscles are provided for the purpose of giving to the ribs the motions backwards and forwards, by which, as levers, they effect this species of progression. These muscles are disposed in regular layers; some passing over one or two ribs to be attached to the succeeding rib. In all snakes the ribs are continued backwards much beyond the region occupied by the lungs; and although the anterior set are subservient to respiration, as well as to progressive motion, it is evident, that all those posterior to the lungs must be employed solely for the latter of these purposes.