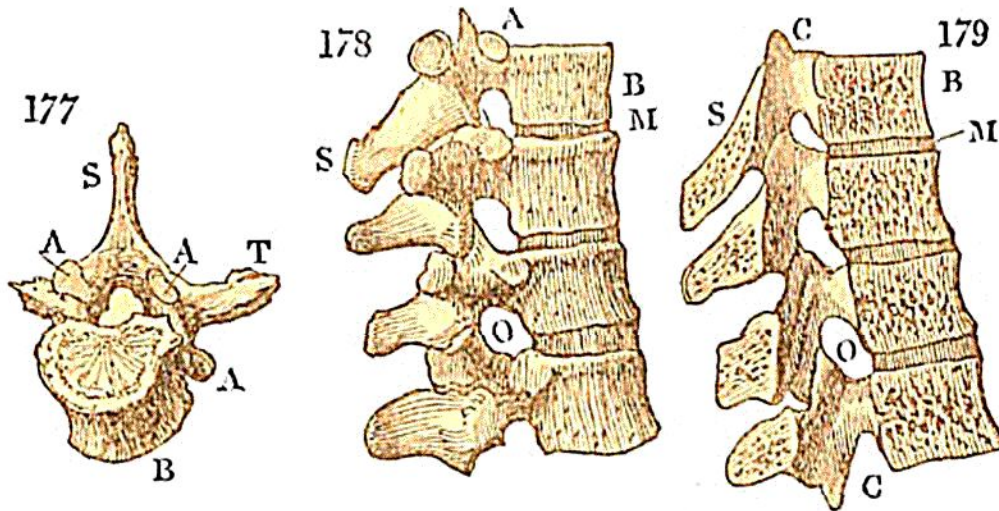


incased. When ossified, these several rings are termed *vertebræ*; and the entire column which they compose is the *Spine*. Fig. 177 shows the form of one of the *vertebræ* of the back in the human skeleton. Fig. 178 is a side view of four *vertebræ* joined together, and Fig. 179 is a vertical sec-



tion of the same part of the spine, showing the canal formed by the rings. From the constancy with which the spinal column is found in all animals of this type, and from the uniformity of the plan on which, amidst endless variations, it is modelled, it has been chosen as the distinctive character of this great assemblage of animals, which have, accordingly, been denominated the *Vertebrata* or *Vertebrated Animals*.

Nor is the spine of less importance when viewed in its mechanical relations to the rest of the skeleton. It is the great central beam of the fabric, establishing points of union between all its parts, and combining them into one continuous frame-work: it is the general axis of all their motions, or the common fulcrum on which the principal bones of the extremities are made to turn: it furnishes fixed points of attachment to all the large muscles which act upon these bones as levers, and, also, to those which move the trunk itself.

If this column had been perfectly rigid, the whole frame-work would have been exposed to inconvenience, and even danger, amidst the shocks it must encounter during all the quick and sudden movements of the body. Not only must its mechanism be framed to sustain these shocks, but also to