

transversarium may be as large as that in the other cervical vertebræ, but is generally smaller on one or both sides; occasionally it is double, sometimes it is absent. On the left side it occasionally gives passage to the vertebral artery; more frequently the vertebral vein traverses it on both sides; but the usual arrangement is for both artery and vein to pass in front of the transverse process, and not through the foramen. Sometimes the anterior root of the transverse process attains a large size and exists as a separate bone, which is known as a **cervical rib**.

### The Thoracic Vertebræ (Vertebræ Thoracales).

The **thoracic vertebræ** (Fig. 90) are intermediate in size between those of the cervical and lumbar regions; they increase in size from above downward, the upper vertebræ being much smaller than those in the lower part of the region. They are distinguished by the presence of facets on the sides of the bodies for articulation with the heads of the ribs, and facets on the transverse processes of all, except the eleventh and twelfth, for articulation with the tubercles of the ribs.

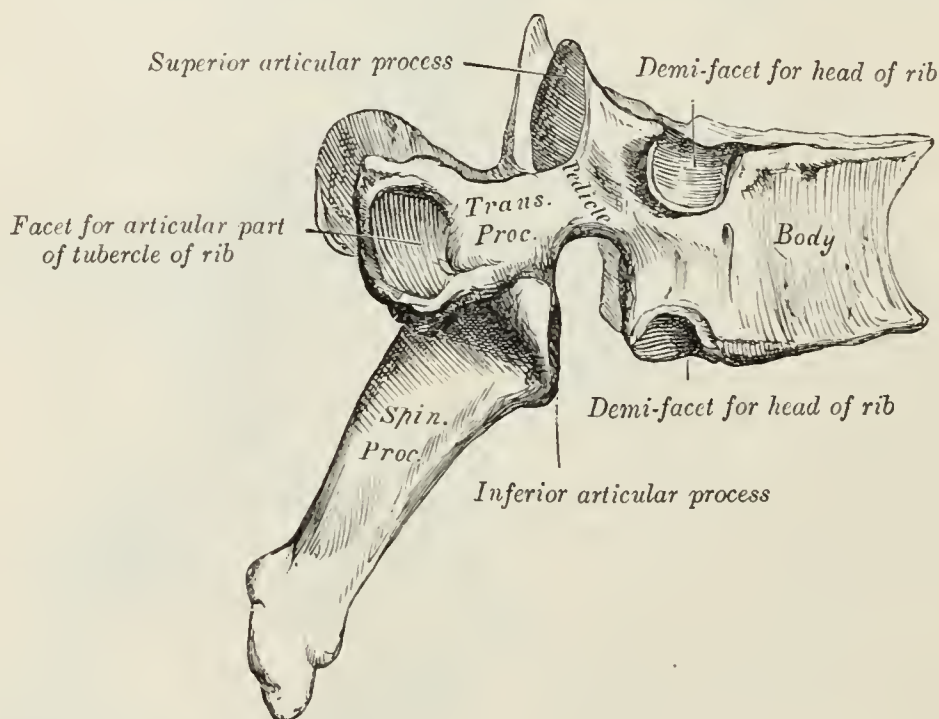


FIG. 90.—A thoracic vertebra.

The **bodies** in the middle of the thoracic region are heart-shaped, and as broad in the antero-posterior as in the transverse direction. At the ends of the thoracic region they resemble respectively those of the cervical and lumbar vertebræ. They are slightly thicker behind than in front, flat above and below, convex from side to side in front, deeply concave behind, and slightly constricted laterally and in front. They present, on either side, two costal demi-facets, one above, near the root of the pedicle, the other below, in front of the inferior vertebral notch; these are covered with cartilage in the fresh state, and, when the vertebræ are articulated with one another, form, with the intervening intervertebral fibrocartilages, oval surfaces for the reception of the heads of the ribs. The **pedicles** are directed backward and slightly upward, and the inferior vertebral notches are of large size, and deeper than in any other region of the vertebral column. The **laminæ** are broad, thick, and imbricated—that is to say, they overlap those of subjacent vertebræ like tiles on a roof. The **vertebral foramen** is small, and of a circular form. The **spinous process** is long, triangular on coronal section, directed obliquely downward, and ends in a tuberculated extremity. These processes