

partially subdivided by indentations which encroach upon their margins. The **inferior articular facets** are circular in form, flattened or slightly convex and directed downward and medialward, articulating with the axis, and permitting the rotatory movements of the head. Just below the medial margin of each superior facet is a small tubercle, for the attachment of the transverse atlantal ligament which stretches across the ring of the atlas and divides the vertebral foramen into two unequal parts—the anterior or smaller receiving the odontoid process of the axis, the posterior transmitting the medulla spinalis and its membranes. This part of the vertebral canal is of considerable size, much greater than is required for the accommodation of the medulla spinalis, and hence lateral displacement of the atlas may occur without compression of this structure. The **transverse processes** are large; they project lateralward and downward from the lateral masses, and serve for the attachment of muscles which assist in rotating the head. They are long, and their anterior and posterior tubercles are fused into one mass; the foramen transversarium is directed from below, upward and backward.

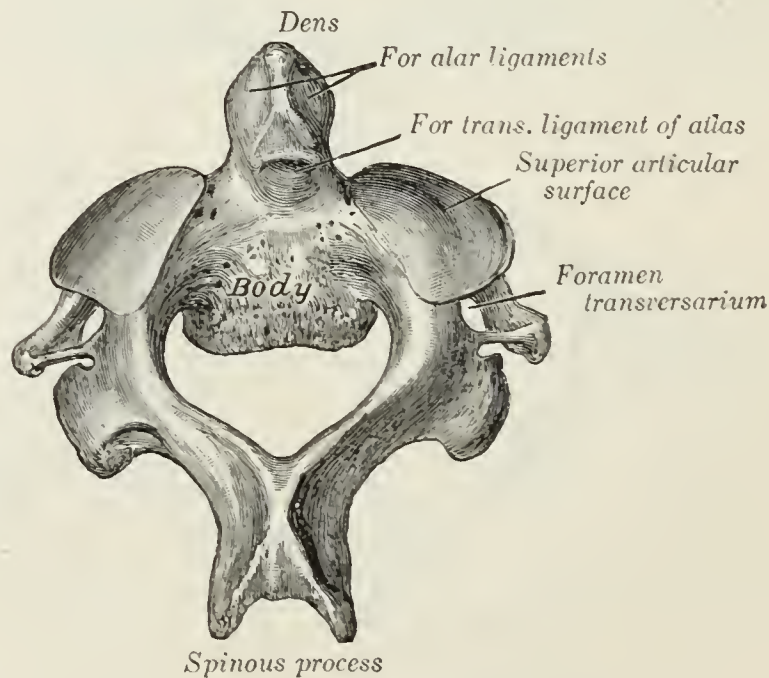


FIG. 87.—Second cervical vertebra, or epistropheus, from above.

Second Cervical Vertebra.—The second cervical vertebra (Fig. 87 and 88) is named the **epistropheus** or **axis** because it forms the pivot upon which the first vertebra, carrying the head, rotates. The most distinctive characteristic of this bone is the strong odontoid process which rises perpendicularly from the upper surface of the body. The **body** is deeper in front than behind, and prolonged downward anteriorly so as to overlap the upper and fore part of the third vertebra. It presents in front a median longitudinal ridge, separating two lateral depressions for the attachment of the Longus colli muscles. Its under surface is concave from before backward and convex from side to side. The **dens** or **odontoid process** exhibits a slight constriction or neck, where it joins the body. On its anterior surface is an oval or nearly circular facet for articulation with that on the anterior arch of the atlas. On the back of the neck, and frequently extending on to its lateral surfaces, is a shallow groove for the transverse atlantal ligament which retains the process in position. The **apex** is pointed, and gives attachment to the apical odontoid ligament; below the apex the process is somewhat enlarged, and presents on either side a rough impression for the attachment of the alar ligament; these ligaments connect the process to the occipital bone. The internal structure