

The Fourth Ventricle (*ventriculus quartus*).—The fourth ventricle, or cavity of the hind-brain, is situated in front of the cerebellum and behind the pons and upper half of the medulla oblongata. Developmentally considered, the fourth ventricle consists of three parts: a **superior** belonging to the isthmus rhombencephali, an **intermediate**, to the metencephalon, and an **inferior**, to the myelencephalon. It is lined by ciliated epithelium, and is continuous below with the central canal of the medulla oblongata;¹ above, it communicates, by means of a passage termed the cerebral aqueduct, with the cavity of the third ventricle. It presents four **angles**, and possesses a **roof** or dorsal wall, a **floor** or ventral wall, and **lateral boundaries**.

Angles.—The **superior angle** is on a level with the upper border of the pons, and is continuous with the lower end of the cerebral aqueduct. The **inferior angle** is on a level with the lower end of the olive, and opens into the central canal of the medulla oblongata. Each **lateral angle** corresponds with the point of meeting of the brachia and inferior peduncle. A little below the lateral angles, on a level with the striæ medullares, the ventricular cavity is prolonged outward in the form of two narrow **lateral recesses**, one on either side; these are situated between the inferior peduncles and the flocculi, and reach as far as the attachments of the glossopharyngeal and vagus nerves.

Lateral Boundaries.—The lower part of each lateral boundary is constituted by the clava, the fasciculus cuneatus, and the inferior peduncle; the upper part by the middle and the superior peduncle.

Roof or Dorsal Wall (Fig. 708).—The upper portion of the roof is formed by the superior peduncle and the anterior medullary velum; the lower portion, by the posterior medullary velum, the epithelial lining of the ventricle covered by the tela chorioidea inferior, the tæniæ of the fourth ventricle, and the obex.

The **superior peduncle** (page 792), on emerging from the central white substance of the cerebellum, pass upward and forward, forming at first the lateral boundaries of the upper part of the cavity; on approaching the inferior colliculi, they converge, and their medial portions overlap the cavity and form part of its roof.

The **anterior medullary velum** (page 793) fills in the angular interval between the superior peduncle, and is continuous behind with the central white substance of the cerebellum; it is covered on its dorsal surface by the lingula of the superior vermis.

The **posterior medullary velum** (page 794) is continued downward and forward from the central white substance of the cerebellum in front of the nodule and tonsils, and ends inferiorly in a thin, concave, somewhat ragged margin. Below this margin the roof is devoid of nervous matter except in the immediate vicinity of the lower lateral boundaries of the ventricle, where two narrow white bands, the **tæniæ of the fourth ventricle** (*ligulæ*), appear; these bands meet over the inferior angle of the ventricle in a thin triangular lamina, the **obex**. The non-nervous part of the roof is formed by the **epithelial lining of the ventricle**, which is prolonged downward as a thin membrane, from the deep surface of the posterior medullary velum to the corresponding surface of the obex and tæniæ, and thence on to the floor of the ventricular cavity; it is covered and strengthened by a portion of the pia mater, which is named the **tela chorioidea of the fourth ventricle**.

The **tæniæ of the fourth ventricle** (*tænia ventriculi quarti*; *ligula*) are two narrow bands of white matter, one on either side, which complete the lower part of the roof of the cavity. Each consists of a vertical and a horizontal part. The vertical part is continuous below the obex with the clava, to which it is adherent by its lateral

¹ J. T. Wilson (Journal of Anatomy and Physiology, vol. xl) has pointed out that the central canal of the medulla oblongata, immediately below its entrance into the fourth ventricle, retains the cleft-like form presented by the fetal medulla spinalis, and that it is marked by dorso- and ventro-lateral sulci.