

only be distinctly seen after the cerebellum has been separated from the medulla oblongata and pons. On either side of the nodule is a thin layer of white substance, named the **posterior medullary velum**. It is semilunar in form, its convex border being continuous with the white substance of the cerebellum; it extends on either side as far as the flocculus. The **flocculus** is a prominent, irregular lobule, situated in front of the biventral lobule, between it and the middle cerebellar peduncle. It is subdivided into a few small laminae, and is connected to the inferior medullary velum by its central white core. The flocculi, together with the posterior medullary velum and nodule, constitute the **lobus noduli**.

The Uvula and Tonsilla.—The **uvula** (*uvula vermis*; *uvular lobe*) forms a considerable portion of the inferior vermis; it is separated on either side from the tonsil by the **sulcus vallecule**, at the bottom of which it is connected to the tonsil by a ridge of gray matter, indented on its surface by shallow furrows, and hence called the **furrowed band**. The **tonsilla** (*tonsilla cerebelli*; *amygdaline nucleus*) is a rounded mass, situated in the hemispheres. Each lies in a deep fossa, termed the **bird's nest** (*nidus avis*), between the uvula and the biventral lobule. The uvula and tonsillae form the **lobus uvulae**.

The **Pyramid and Biventral lobules** constitute the **lobus pyramidis**. The **pyramid** is a conical projection, forming the largest prominence of the inferior vermis. It is separated from the hemispheres by the sulcus vallecule, across which it is connected to the biventral lobule by an indistinct gray band, analogous to the furrowed band already described. The **biventral lobule** is triangular in shape; its apex points backward, and is joined by the gray band to the pyramid. The lateral border is separated from the inferior semilunar lobule by the postpyramidal fissure. The base is directed forward, and is on a line with the anterior border of the tonsil, and is separated from the flocculus by the postnodular fissure.

The **Tuber Vermis** (*tuber valvulae*) and the **Inferior Semilunar Lobule** (*lobulus semilunaris inferior*; *postero-superior lobule*) collectively form the **lobus tuberis** (*tuberæ lobe*). The **tuber vermis**, the most posterior division of the inferior vermis, is of small size, and laterally spreads out into the large inferior semilunar lobules, which comprise at least two-thirds of the inferior surface of the hemisphere.

Internal Structure of the Cerebellum.—The cerebellum consists of white and gray substance.

White Substance.—If a sagittal section (Fig. 704) be made through either hemisphere, the interior will be found to consist of a central stem of white substance, in the middle of which is a gray mass, the **dentate nucleus**. From the surface of this central white stem a series of plates is prolonged; these are covered with gray substance and form the laminae. In consequence of the main branches from the central stem dividing and subdividing, a characteristic appearance, named the **arbor vitæ**, is presented. If the sagittal section be made through the middle of the vermis, it will be found that the central stem divides into a vertical and a horizontal branch. The *vertical* branch passes upward to the culmen monticuli, where it subdivides freely, one of its ramifications passing forward and upward to the central lobule. The *horizontal* branch passes backward to the folium vermis, greatly diminished in size in consequence of having given off large secondary branches; one, from its upper surface, ascends to the clivus monticuli; the others descend, and enter the lobes in the inferior vermis, viz., the tuber vermis, the pyramid, the uvula, and the nodule.

The white substance of the cerebellum includes two sets of nerve fibers: (1) **projection fibers**, (2) **fibræ propriæ**.

Projection Fibers.—The cerebellum is connected to the other parts of the brain by three large bundles of projection fibers, viz., to the cerebrum by the superior peduncle, to the pons by the middle peduncle, and to the medulla oblongata by the inferior peduncles (Fig. 705).