

cells of various sizes, interlaced, by a net-work of fine fibers. Besides these scattered cells it contains three groups which constitute the nuclei of the oculomotor and trochlear nerves, and the nucleus of the mesencephalic root of the trigeminal nerve. The **nucleus of the trigeminal nerve** extends along the entire length of the aqueduct, and occupies the lateral part of the gray stratum, while the nuclei of the oculomotor and trochlear nerves are situated in its ventral part. The **nucleus of the oculomotor nerve** is about 10 cm. long, and lies under the superior colliculus, beyond which, however, it extends for a short distance into the gray substance of the third ventricle. The **nucleus of the trochlear nerve** is small and nearly circular, and is on a level with a plane carried transversely through the upper part of the inferior colliculus.

THE FORE-BRAIN OR PROSENCEPHALON.

The **fore-brain** or **prosencephalon** consists of: (1) the **diencephalon**, corresponding in a large measure to the third ventricle and the structures which bound it; and (2) the **telencephalon**, comprising the largest part of the brain, viz., the cerebral hemispheres; these hemispheres are intimately connected with each other across the middle line, and each contains a large cavity, named the lateral ventricle. The lateral ventricles communicate through the interventricular foramen with the third ventricle, but are separated from each other by a medial septum, the **septum pellucidum**; this contains a slit-like cavity, which does not communicate with the ventricles.

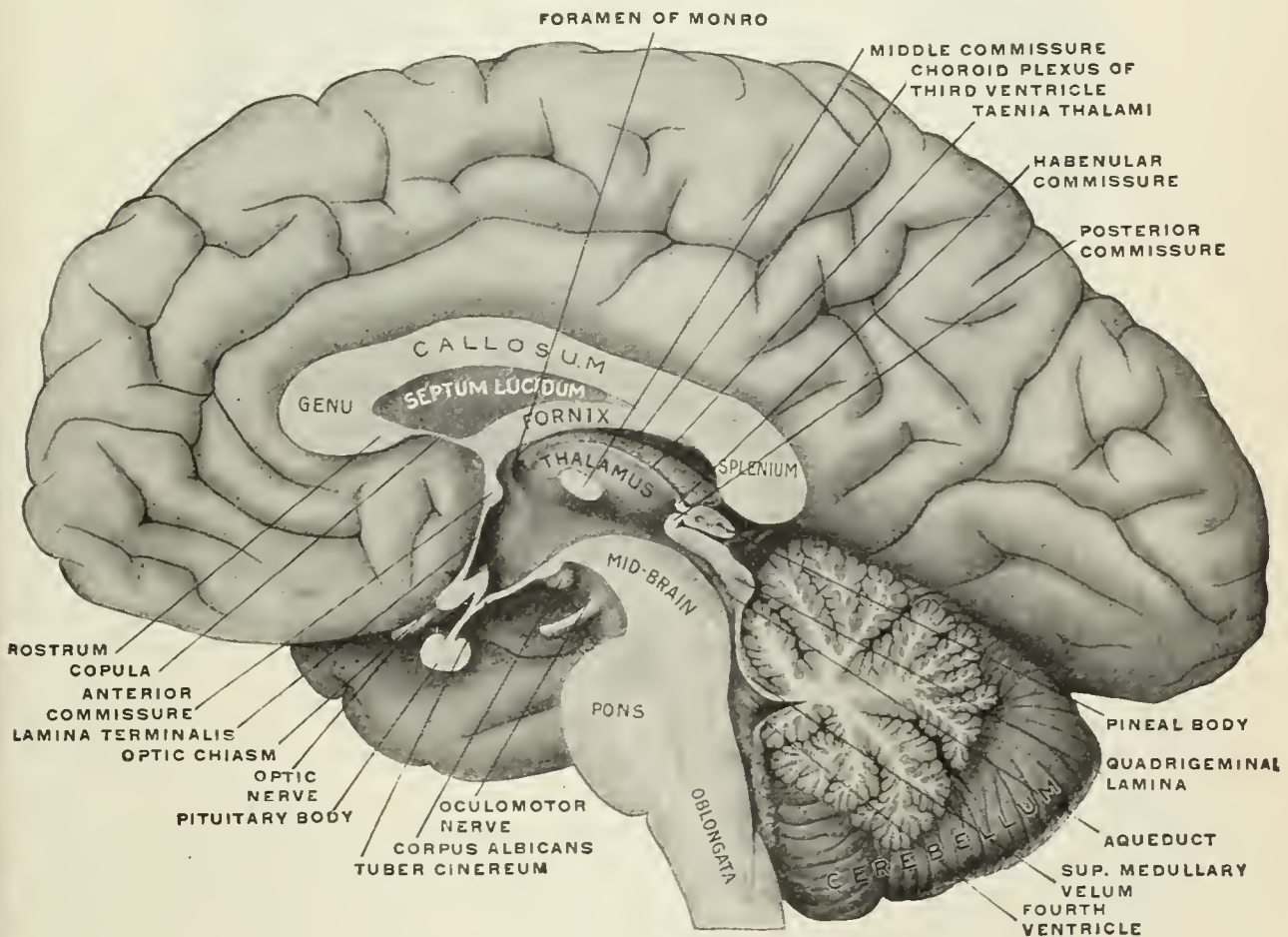


FIG. 715.—Mesal aspect of a brain sectioned in the median sagittal plane.

The Diencephalon.—The diencephalon is connected above and in front with the cerebral hemispheres; behind with the mid-brain. Its upper surface is concealed by the corpus callosum, and is covered by a fold of pia mater, named the tela chorioidea of the third ventricle; inferiorly it reaches to the base of the brain.

The diencephalon comprises: (1) the **thalamencephalon**; (2) the **pars mamillaris**