

receive impulses from the mitral cells. These fibers of the medullary stria end for the most part in the habenular nucleus of the same side, some, however, cross in the habenular commissure (dorsal part of the posterior commissure) to the habenular nucleus of the opposite side. A few fibers of the medullary stria are said to pass by the habenular nucleus to the roof of the mid-brain, especially the superior colliculus, while a few others come into relation with the posterior longitudinal bundle and association tracts of the mesencephalon.

The ganglion of the habenulæ located in the trigonum habenulæ just in front of the superior colliculus contains a mesial nucleus with small cells and a lateral nucleus with larger cells. The axons of these cells are grouped together in a bundle, the **fasciculus retroflexus of Meynert**, which passes ventrally medial to the red nucleus and terminates in a small medial ganglion in the substantia perforata posterior, immediately in front of the pons, called the **interpeduncular ganglion**.

The **interpeduncular ganglion** has rather large nerve cells whose axons curve backward and downward as the **tegmental bundle of Gudden**, to end partly in the dorsal tegmental nucleus and surrounding gray substance where they come into relation with association neurons and the dorsal longitudinal bundle of Schütz.

The majority of the axons that arise from the mitral cells of the olfactory bulb and course in the olfactory tract course in the lateral olfactory stria to the uncus and hippocampal gyrus, and terminate in the cortex. Other fibers probably pass to the uncus and hippocampal gyrus from the primary olfactory centers in the trigonum and anterior perforated substance. The gyrus hippocampus is continued through the isthmus into the gyrus cinguli which passes over the corpus callosum to the area parolfactoria. The cortical portions of these gyri are connected together by a thick association bundle, the **cingulum**, that lies buried in the depth of the gyrus cinguli extending forward to the parolfactory area and backward into the hippocampal region. The axons from the gyrus cinguli pass into the cingulum, many of them bifurcate, the anterior branches together with the axons which run in that direction are traceable as far forward as the anterior part of the septum pellucidum and the anterior end of the corpus striatum, where some of them are incorporated with projection fibers passing toward the internal capsule. The branches and axons which pass backward terminate partly in the hippocampus, the dentate gyrus and hippocampal gyrus. Shorter association fibers connect various sections of the gyrus fornicatus (cingulate gyrus, isthmus, and hippocampal gyrus) and these with other regions of the cortex. These gyri constitute the cortical center for smell.

The **dentate gyrus** which may be considered as a modified part of the hippocampus is partially separated from the gyrus hippocampus by the hippocampal fissure and from the fimbria by the fimbrio-dentate sulcus; it is intimately connected with the hippocampal gyrus and the hippocampus. When followed backward the dentate gyrus separates from the fimbria at the splenium, loses its incisions and knobs, and as the fasciola cinerea passes over the splenium onto the dorsal surface of the corpus callosum and spreads out into a thin layer of gray substance known as the **indusium**, which can be traced forward around the genu of the corpus callosum into the gyrus subcallosus. The white matter of the indusium known as the **medial longitudinal striæ** (*nerves of Lancisi*) and the **lateral longitudinal striæ**, are related to the indusium somewhat as the cingulum is to the gyrus cinguli. Axons from the indusium pass into the longitudinal striæ, some running forward and others backward while some after entering the medial longitudinal stria, pierce the corpus callosum to join the fornix. Some of the fibers which pass forward extend around the front of the corpus callosum and the anterior commissure, then curve downward, according to Cajal, to enter the corpus striatum where they join the olfactory projection-path. Other fibers are said to arise in the parolfactory area, the **gyrus subcallosus** and the **anterior perforated substance** (*diagonal band of*