is named the **tegmentum**; the ventral, the **base** or **crusta**; the two bases are separated from each other, but the tegmenta are joined in the median plane by a forward prolongation of the raphé of the pons. Laterally, the tegmenta are free; dorsally, they blend with the corpora quadrigemina.

The **base** (*basis pedunculi; crusta or pes*) is semilunar on transverse section, and consists almost entirely of longitudinal bundles of efferent fibers, which arise from the cells of the cerebral cortex and are grouped into three principal sets, viz., cerebrospinal, frontopontine, and temporopontine (Fig. 710). The **cerebrospinal fibers**, derived from the cells of the motor area of the cerebral cortex, occupy the middle three-fifths of the base; they are continued partly to the nuclei of the motor cranial nerves, but mainly into the pyramids of the medulla oblongata. The **frontopontine fibers** are situated in the medial fifth of the base; they arise from the cells of the frontal lobe and end in the nuclei of the pons. The **temporopontine fibers** are lateral to the cerebrospinal fibers; they originate in the temporal lobe and end in the nuclei pontis.[1]

The **substantia nigra** (*intercalatum*) is a layer of gray substance containing numerous deeply pigmented, multipolar nerve cells. It is semilunar on transverse section, its concavity being directed toward the tegmentum; from its convexity, prolongations extend between the fibers of the base of the peduncle. Thicker medially than laterally, it reaches from the oculomotor sulcus to the lateral sulcus, and extends from the upper surface of the pons to the subthalamic region; its medial part is traversed by the fibers of the oculomotor nerve as these stream forward to reach the oculomotor sulcus. The connections of the cells of the substantia nigra have not been definitely established. It receives collaterals from the medial lemniscus and the pyramidal bundles. Bechterew is of the opinion that the fibers from the motor area of the cerebral cortex form synapses with cells whose axons pass to the motor nucleus of the trigeminal nerve and serve for the coördination of the muscles of mastication.

The **tegmentum** is continuous below with the reticular formation of the pons, and, like it, consists of longitudinal and transverse fibers, together with a considerable amount of gray substance. The principal gray masses of the tegmentum are the red nucleus and the interpeduncular ganglion; of its fibers the chief longitudinal tracts are the superior peduncle, the medial longitudinal fasciculus, and the lemniscus.

Gray Substance.—The **red nucleus** is situated in the anterior part of the tegmentum, and is continued upward into the posterior part of the subthalamic region. In sections at the level of the superior colliculus it appears as a circular mass which is traversed by the fibers of the oculomotor nerve. It receives many terminals and collaterals from the superior cerebellar peduncle also collaterals from the ventral longitudinal bundle, from Gudden's bundle and the median lemniscus. The axons of its larger cells cross the middle line and are continued downward into the lateral funiculus of the medulla spinalis as the rubrospinal tract (page 761); those of its smaller cells end mainly in the thalamus. The rubrospinal tract forms an important part of the pathway from the cerebellum to the lower motor centers.

The **interpeduncular ganglion** is a median collection of nerve cells situated in the ventral part of the tegmentum. The fibers of the fasciculus retroflexus of Meynert, which have their origin in the cells of the ganglion habenulæ (page 812), end in it.

Besides the two nuclei mentioned, there are small collections of cells which form the dorsal and ventral nuclei and the central nucleus or nucleus of the raphé.

[1] A band of fibers, the *tractus pedunculari transversus*, is sometimes seen emerging from in front of the superior colliculus; it passes around the ventral aspect of the peduncle about midway between the pons and the optic tract, and dips into the oculomotor sulcus. This band is a constant structure in many mammals, but is only present in about 30 per cent. of human brains. Since it undergoes atrophy after enucleation of the eyeballs, it may be considered as forming a path for visual sensations.