projection of the superficial transverse fibers, and thus give rise to the eminences on the anterior surface. Some of these fibers end in, or give off collateral to, the nuclei pontis. An important pathway is thus formed between the cerebral cortex and the cerebellum, the first neuron having its cell body in the cortex and sending its axon through the internal capsule and cerebral peduncle to form synapses either by terminals or collaterals with cell bodies situated in the nuclei pontis. Axons from these cells form the transverse fibers which pass through the middle peduncle into the cerebellum. Others after decussating, terminate either directly or indirectly in the motor nuclei of the trigeminal, abducent, facial, and hypoglossal nerves; but most of them are carried through the pons, and at its lower surface are collected into the pyramids of the medulla. The fibers which end in the motor nuclei of the cranial nerves are derived from the cells of the cerebral cortex, and bear the same relation to the motor cells of the cranial nerves that the cerebro-

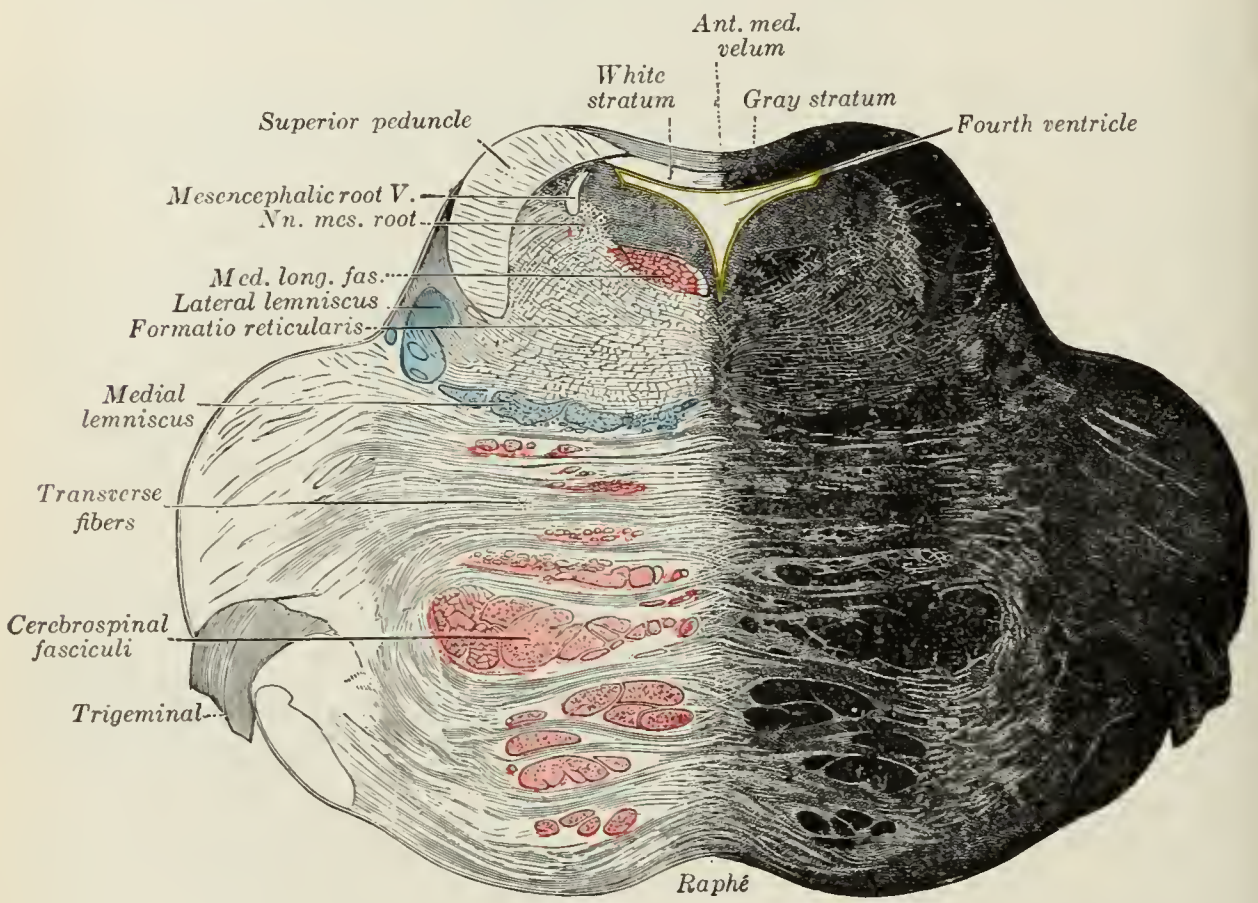

Fig. 701.—Coronal section of the pons, at its upper part.

spinal fibers bear to the motor cells in the anterior column of the medulla spinalis. Probably none of the collaterals or terminals of the cerebrospinal and cerebrobulbar fibers end directly in the motor nuclei of the spinal and cranial nerves, one or more association neurons are probably interpolated in the pathway.

The **nuclei pontis** are serially continuous with the arcuate nuclei in the medulla, and consist of small groups of multipolar nerve cells which are scattered between the bundles of transverse fibers.

The **dorsal** or **tegmental part** of the pons is chiefly composed of an upward continuation of the reticular formation and gray substance of the medulla oblongata. It consists of transverse and longitudinal fibers and also contains important gray nuclei, and is subdivided by a median raphé, which, however, does not extend into the basilar part, being obliterated by the transverse fibers. The transverse fibers in the lower part of the pons are collected into a distinct strand, named the