dentate nucleus of the cerebellum and emerge from the hilus of this nucleus; a few arise from the cells of the smaller gray nuclei in the cerebellar white substance, and others from the cells of the cerebellar cortex. They are continued upward beneath the corpora quadrigemina, and the fibers of the two peduncles undergo a complete decussation ventral to the Sylvian aqueduct. Having crossed the middle line they divide into ascending and descending groups of fibers, the former ending in the red nucleus, the thalamus, and the nucleus of the oculomotor nerve, while the descending fibers can be traced as far as the dorsal part of the pons; Cajal believes them to be continued into the anterior funiculus of the medulla spinalis.

As already stated (page 762), the majority of the fibers of the **ventral spinocerebellar fasciculus** of the medulla spinalis pass to the cerebellum, which they reach by way of the superior peduncle.

The **middle cerebellar peduncles** (*brachia pontis*) (Fig. 705) are composed entirely of centripetal fibers, which arise from the cells of the nuclei pontis of the opposite side and end in the cerebellar cortex; the fibers are arranged in three fasciculi, superior, inferior, and deep. The **superior fasciculus**, the most superficial, is derived from the upper transverse fibers of the pons; it is directed backward and lateralward superficial to the other two fasciculi, and is distributed mainly to the lobules on the inferior surface of the cerebellar hemisphere and to the parts of the superior surface adjoining the posterior and lateral margins. The **inferior fasciculus** is formed by the lowest transverse fibers of the pons; it passes under cover of the superior fasciculus and is continued downward and backward more or less parallel with it, to be distributed to the folia on the under surface close to the vermis.

The **deep fasciculus** comprises most of the deep transverse fibers of the pons. It is at first covered by the superior and inferior fasciculi, but crosses obliquely and appears on the medial side of the superior, from which it receives a bundle; its fibers spread out and pass to the upper anterior cerebellar folia. The fibers of this fasciculus cover those of the restiform body.[1]

The **inferior cerebellar peduncles** (*restiform bodies*) pass at first upward and lateralward, forming part of the lateral walls of the fourth ventricle, and then bend abruptly backward to enter the cerebellum between the superior and middle peduncles. Each contains the following fasciculi: (1) the dorsal spinocerebellar fasciculus of the medulla spinalis, which ends mainly in the superior vermis; (2) fibers from the gracile and cuneate nuclei of the same and of the opposite sides; (3) fibers from the opposite olivary nuclei; (4) crossed and uncrossed fibers from the reticular formation of the medulla oblongata; (5) vestibular fibers, derived partly from the vestibular division of the acoustic nerve and partly from the nuclei in which this division ends—these fibers occupy the medial segment of the inferior peduncle and divide into ascending and descending groups of fibers, the ascending fibers partly end in the roof nucleus of the opposite side of the cerebellum; (6) cerebellobulbar fibers which come from the opposite roof nucleus and probably from the dentate nucleus, and are said to end in the nucleus of Deiters and in the formatio reticularis of the medulla oblongata; (7) some fibers from the ventral spinocerebellar fasciculus are said to join the dorsal spinocerebellar fasciculus.

The **anterior medullary velum** (*velum medullare anterius; valve of Vieussens; superior medullary velum*) is a thin, transparent lamina of white substance, which stretches between the superior peduncle; on the dorsal surface of its lower half the folia and lingula are prolonged. It forms, together with the superior peduncle, the roof of the upper part of the fourth ventricle; it is narrow above, where it passes beneath the inferior colliculi, and broader below, where it is continuous with the white substance of the superior vermis. A slightly elevated ridge, the **frænulum**

[1] See article by E. B. Jamieson, Journal of Anatomy and Physiology, vol. xliv.