

In front, the cisterna interpeduncularis extends forward across the optic chiasma, forming the **cisterna chiasmatis**, and on to the upper surface of the corpus callosum, for the arachnoid stretches across from one cerebral hemisphere to the other immediately beneath the free border of the falx cerebri, and thus leaves a space in which the anterior cerebral arteries are contained. The **cisterna fossæ cerebri lateralis** is formed in front of either temporal lobe by the arachnoid bridging across the lateral fissure. This cavity contains the middle cerebral artery. The **cisterna venæ magnæ cerebri** occupies the interval between the splenium of the corpus callosum and the superior surface of the cerebellum; it extends between the layers of the tela chorioidea of the third ventricle and contains the great cerebral vein.

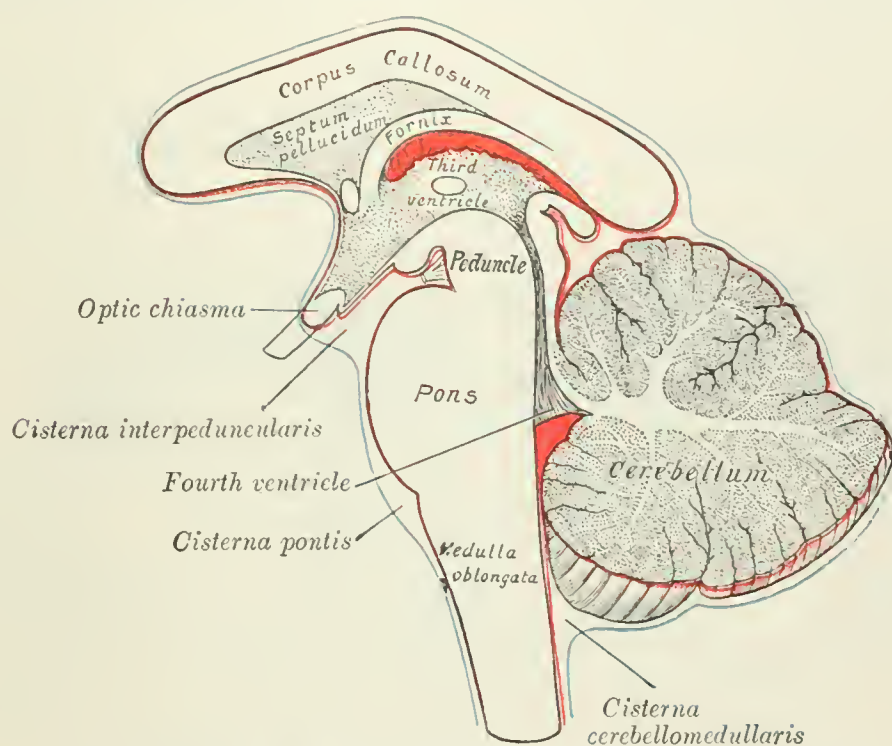


FIG. 768.—Diagram showing the positions of the three principal subarachnoid cisternæ.

The subarachnoid cavity communicates with the general ventricular cavity of the brain by three openings; one, the **foramen of Majendie**, is in the middle line at the inferior part of the roof of the fourth ventricle; the other two are at the extremities of the lateral recesses of that ventricle, behind the upper roots of the glossopharyngeal nerves and are known as the **foramina of Luschka**. It is still somewhat uncertain whether these foramina are actual openings or merely modified areas of the inferior velum which permit the passage of the cerebrospinal fluid from the ventricle into the subarachnoid spaces as through a permeable membrane.

The spinal part of the subarachnoid cavity is a very wide interval, and is the largest at the lower part of the vertebral canal, where the arachnoid encloses the nerves which form the cauda equina. Above, it is continuous with the cranial subarachnoid cavity; below, it ends at the level of the lower border of the second sacral vertebra. It is partially divided by a longitudinal septum, the **subarachnoid septum**, which connects the arachnoid with the pia mater opposite the posterior median sulcus of the medulla spinalis, and forms a partition, incomplete and cribriform above, but more perfect in the thoracic region. The spinal subarachnoid cavity is further subdivided by the **ligamentum denticulatum**, which will be described with the pia mater.

The cerebrospinal fluid is a clear limpid fluid, having a saltish taste, and a slightly alkaline reaction. According to Lassaigne, it consists of 98.5 parts of water, the remaining 1.5 per cent. being solid matters, animal and saline. It varies in quantity, being most abundant in old persons, and is quickly secreted.