

fibers are continued directly from the gracile and cuneate fasciculi into the inferior peduncle.

(6) Fibers from the **terminal sensory nuclei** of the cranial nerves, especially the vestibular. Some of the fibers of the vestibular nerve are thought to continue directly into the cerebellum.

(7) Fibers from the **ventral spinocerebellar fasciculus**.

(8) The existence of fibers from the **cerebellum** (cerebellobulbar, cerebelloolivary, and cerebellospinal) to the medulla and spinal cord is very uncertain.

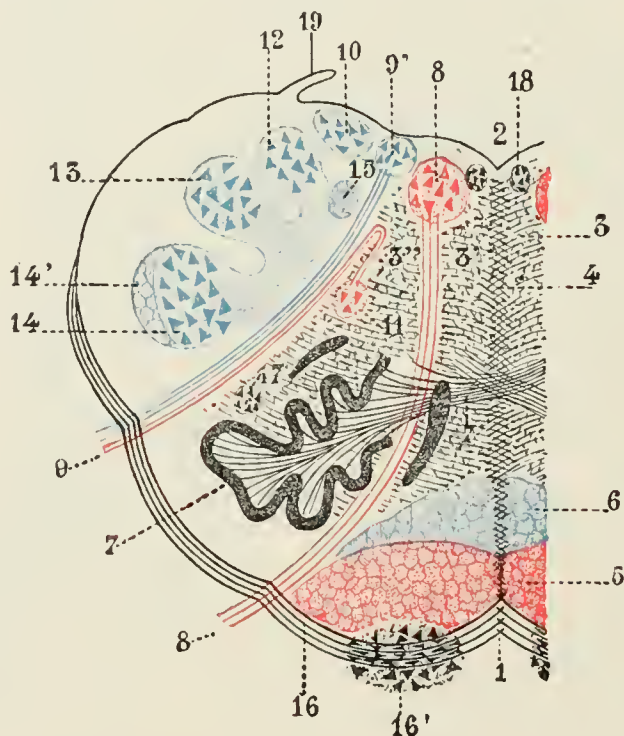


FIG. 700.—The formatio reticularis of the medulla oblongata, shown by a transverse section passing through the middle of the olive. (Testut.) 1. Anterior median fissure. 2. Fourth ventricle. 3. Formatio reticularis, with 3', its internal part (reticularis alba), and 3'', its external part (reticularis grisea). 4. Raphé. 5. Pyramid. 6. Lemniscus. 7. Inferior olivary nucleus with the two accessory olivary nuclei. 8. Hypoglossal nerve, with 8', its nucleus of origin. 9. Vagus nerve, with 9', its nucleus of termination. 10. Lateral dorsal acoustic nucleus. 11. Nucleus ambiguus (nucleus of origin of motor fibers of glossopharyngeal, vagus, and cerebral portion of spinal accessory). 12. Gracile nucleus. 13. Cuneate nucleus. 14. Head of posterior column, with 14', the lower sensory root of trigeminal nerve. 15. Fasciculus solitarius. 16. Anterior external arcuate fibers, with 16', the nucleus arcuatus. 17. Nucleus lateralis. 18. Nucleus of fasciculus teres. 19. Ligula.

Formatio Reticularis (Fig. 700).—This term is applied to the coarse reticulum which occupies the anterior and lateral districts of the medulla oblongata. It is situated behind the pyramid and olive, extending laterally as far as the inferior peduncles, and dorsally to within a short distance of the rhomboid fossa. The reticulum is caused by the intersection of bundles of fibers running at right angles to each other, some being longitudinal, others more or less transverse in direction. The formatio reticularis presents a different appearance in the anterior district from what it does in the lateral; in the former, there is an almost entire absence of nerve cells, and hence this part is known as the **reticularis alba**; whereas in the lateral district nerve cells are numerous, and as a consequence it presents a gray appearance, and is termed the **reticularis grisea**.

In the substance of the formatio reticularis are two small nuclei of gray matter: one, the **inferior central nucleus** (*nucleus of Roller*), near the dorsal aspect of the hilus of the inferior olivary nucleus; the other, the **nucleus lateralis**, between the olive and the spinal tract of the trigeminal nerve.

In the reticularis alba the longitudinal fibers form two well-defined fasciculi, viz.: (1) the **lemniscus**, which lies close to the raphé, immediately behind the fibers of the pyramid; and (2) the **medial longitudinal fasciculus**, which is continued upward from the anterior and lateral proper fasciculi of the medulla spinalis, and,