

the corpora striata and thalami; later the fibers from the cells of the cortex are added. Medullation of these fibers begins about the time of birth and continues until puberty. A summary of the parts derived from the brain vesicles is given in the following table:

Hind-brain or Rhombencephalon	{ 1. Myelencephalon 2. Metencephalon 3. Isthmus rhombencephali	Medulla oblongata
		Lower part of fourth ventricle.
		Pons Cerebellum Intermediate part of fourth ventricle.
Mid-brain or Mesencephalon	{ 1. Diencephalon 2. Telencephalon	Anterior medullary velum Brachia conjunctiva cerebelli. Upper part of fourth ventricle.
		Cerebral peduncles Lamina quadrigemina Cerebral aqueduct.
Fore-brain or Prosencephalon	{ 1. Diencephalon 2. Telencephalon	Thalamus Metathalamus Epithalamus Pars mamillaris hypothalami Posterior part of third ventricle.
		Anterior part of third ventricle Pars optica hypothalami Cerebral hemispheres Lateral ventricles Interventricular foramen.

The Cranial Nerves.—With the exception of the olfactory, optic, and acoustic nerves, which will be especially considered, the cranial nerves are developed in a similar manner to the spinal nerves (see page 735). The sensory or afferent nerves are derived from the cells of the ganglion rudiments of the neural crest. The central processes of these cells grow into the brain and form the roots of the nerves, while the peripheral processes extend outward and constitute their fibers of distribution (Fig. 645). It has been seen, in considering the development of the medulla oblongata (page 739), that the *tractus solitarius* (Fig. 660), derived from the fibers which grow inward from the ganglion rudiments of the glossopharyngeal and vagus nerves, is the homologue of the *oval bundle* in the cord which had

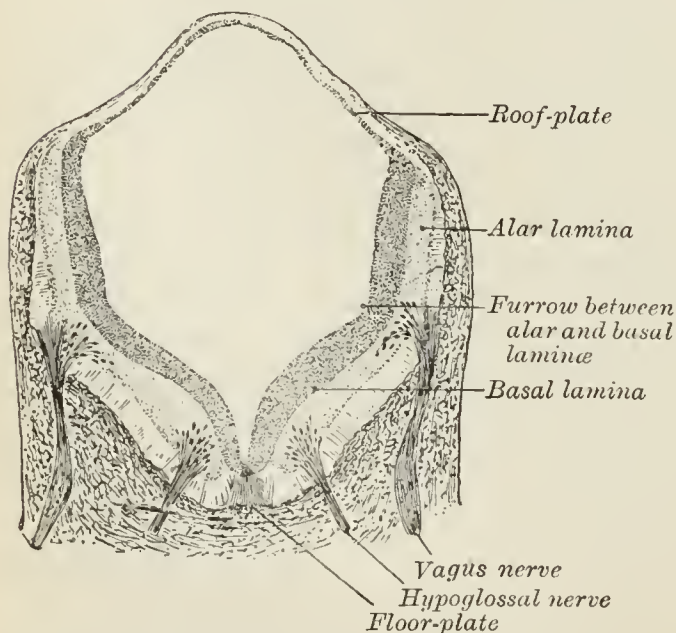


FIG. 659.—Transverse section of medulla oblongata of human embryo. X 32. (Kollmann)

the *oval bundle* in the cord which had