

motor and sympathetic filaments from various sources; these filaments are called the **roots of the ganglia**.

The **Ophthalmic Nerve** (*n. ophthalmicus*) (Figs. 776, 777), or **first division** of the trigeminal, is a sensory nerve. It supplies branches to the cornea, ciliary body, and iris; to the lacrimal gland and conjunctiva; to the part of the mucous membrane of the nasal cavity; and to the skin of the eyelids, eyebrow, forehead, and nose. It is the smallest of the three divisions of the trigeminal, and *arises* from the upper part of the semilunar ganglion as a short, flattened band, about 2.5 cm. long, which passes forward along the lateral wall of the cavernous sinus, below the oculomotor and trochlear nerves; just before entering the orbit, through the superior orbital fissure, it divides into three branches, **lacrimal, frontal, and nasociliary**.

The ophthalmic nerve is joined by filaments from the cavernous plexus of the sympathetic, and communicates with the oculomotor, trochlear, and abducent nerves; it gives off a recurrent filament which passes between the layers of the tentorium.

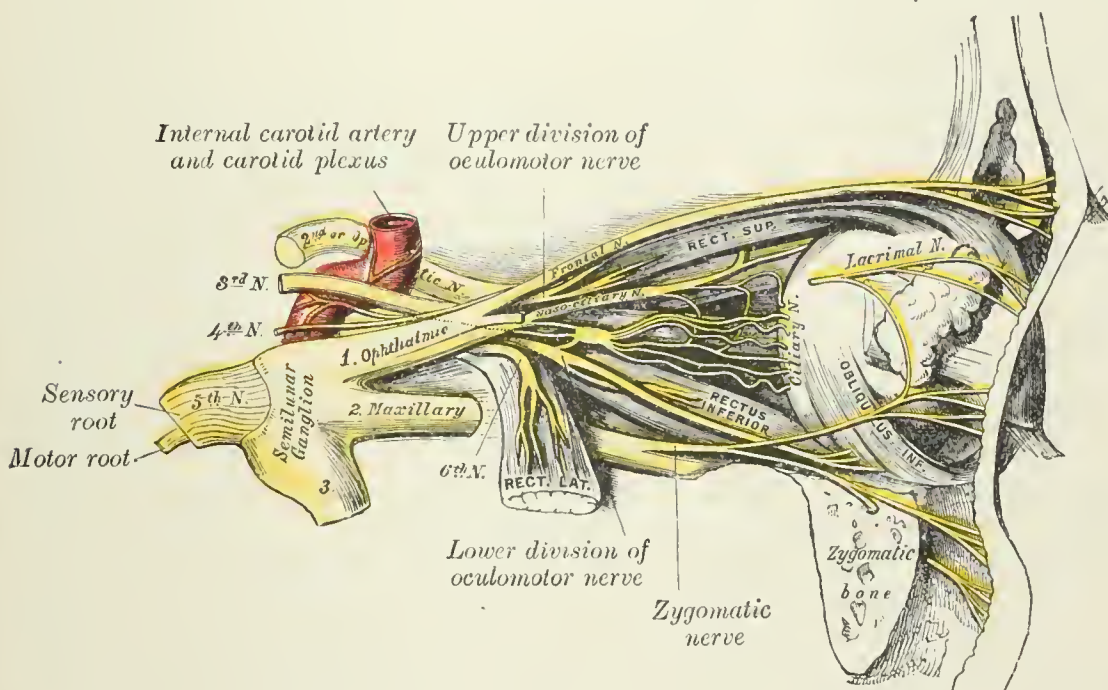


FIG. 777.—Nerves of the orbit, and the ciliary ganglion. Side view.

The **Lacrimal Nerve** (*n. lacrimalis*) is the smallest of the three branches of the ophthalmic. It sometimes receives a filament from the trochlear nerve, but this is possibly derived from the branch which goes from the ophthalmic to the trochlear nerve. It passes forward in a separate tube of dura mater, and enters the orbit through the narrowest part of the superior orbital fissure. In the orbit it runs along the upper border of the Rectus lateralis, with the lacrimal artery, and communicates with the zygomatic branch of the maxillary nerve. It enters the lacrimal gland and gives off several filaments, which supply the gland and the conjunctiva. Finally it pierces the orbital septum, and ends in the skin of the upper eyelid, joining with filaments of the facial nerve. The lacrimal nerve is occasionally absent, and its place is then taken by the zygomaticotemporal branch of the maxillary. Sometimes the latter branch is absent, and a continuation of the lacrimal is substituted for it.

The **Frontal Nerve** (*n. frontalis*) is the largest branch of the ophthalmic, and may be regarded, both from its size and direction, as the continuation of the nerve. It enters the orbit through the superior orbital fissure, and runs forward between the Levator palpebræ superioris and the periosteum. Midway between the apex and base of the orbit it divides into two branches, **supratrochlear** and **supraorbital**.