

The **medial wall** (Fig. 192) is nearly vertical, and is formed from before backward by the frontal process of the maxilla, the lacrimal, the lamina papyracea of the ethmoid, and a small part of the body of the sphenoid in front of the optic foramen. Sometimes the sphenoidal concha forms a small part of this wall (see page 152). It exhibits three vertical sutures, viz., the lacrimomaxillary, lacrimoethmoidal, and sphenoeethmoidal. In front is seen the **lacrimal groove**, which lodges the lacrimal sac, and behind the groove is the **posterior lacrimal crest**, from which the lacrimal part of the Orbicularis oculi arises. At the junction of the medial wall and the roof are the frontomaxillary, frontolacrimal, frontoethmoidal, and sphenofrontal sutures. The point of junction of the anterior border of the lacrimal with the frontal is named the **dacryon**. In the frontoethmoidal suture are the **anterior and posterior ethmoidal foramina**, the former transmitting the nasociliary nerve and anterior ethmoidal vessels, the latter the posterior ethmoidal nerve and vessels.

The **lateral wall**, directed medialward and forward, is formed by the orbital process of the zygomatic and the orbital surface of the great wing of the sphenoid; these are united by the sphenozygomatic suture which terminates below at the front end of the inferior orbital fissure. On the orbital process of the zygomatic bone are the orbital tubercle (Whitnall) and the orifices of one or two canals which transmit the branches of the zygomatic nerve. Between the roof and the lateral wall, near the apex of the orbit, is the **superior orbital fissure**. Through this fissure the oculomotor, the trochlear, the ophthalmic division of the trigeminal, and the abducent nerves enter the orbital cavity, also some filaments from the cavernous plexus of the sympathetic and the orbital branches of the middle meningeal artery. Passing backward through the fissure are the ophthalmic vein and the recurrent branch from the lacrimal artery to the dura mater. The lateral wall and the floor are separated posteriorly by the **inferior orbital fissure** which transmits the maxillary nerve and its zygomatic branch, the infraorbital vessels, and the ascending branches from the sphenopalatine ganglion.

The **base** of the orbit, quadrilateral in shape, is formed *above* by the supra-orbital arch of the frontal bone, in which is the **supraorbital notch or foramen** for the passage of the supraorbital vessels and nerve; *below* by the zygomatic bone and maxilla, united by the zygomaticomaxillary suture; laterally by the zygomatic bone and the zygomatic process of the frontal joined by the zygomaticofrontal suture; medially by the frontal bone and the frontal process of the maxilla united by the frontomaxillary suture.

The **apex**, situated at the back of the orbit, corresponds to the optic foramen¹ a short, cylindrical canal, which transmits the optic nerve and ophthalmic artery.

It will thus be seen that there are nine openings communicating with each orbit, viz., the optic foramen, superior and inferior orbital fissures, supraorbital foramen, infraorbital canal, anterior and posterior ethmoidal foramina, zygomatic foramen, and the canal for the nasolacrimal duct.

THE INTERIOR OF THE SKULL.

Inner Surface of the Skull-cap.—The inner surface of the skull-cap is concave and presents depressions for the convolutions of the cerebrum, together with numerous furrows for the lodgement of branches of the meningeal vessels. Along the middle line is a longitudinal groove, narrow in front, where it commences at the frontal crest, but broader behind; it lodges the superior sagittal sinus, and its margins afford attachment to the falx cerebri. On either side of it are several

¹ Some anatomists describe the apex of the orbit as corresponding with the medial end of the superior orbital fissure. It seems better, however, to adopt the statement in the text, since the ocular muscles take origin around the optic foramen, and diverge from it to the bulb of the eye.