Surfaces.—The **lateral or orbital surface** (Fig. 163) is divided by a vertical ridge, the **posterior lacrimal crest**, into two parts. In front of this crest is a longitudinal groove, the **lacrimal sulcus** (*sulcus lacrimalis*), the inner margin of which unites with the frontal process of the maxilla, and the lacrimal fossa is thus completed. The upper part of this fossa lodges the lacrimal sac, the lower part, the nasolacrimal duct. The portion behind the crest is smooth, and forms part of the medial wall of the orbit. The crest, with a part of the orbital surface immediately behind it, gives origin to the lacrimal part of the Orbicularis oculi and ends below in a small, hook-like projection, the **lacrimal hamulus**, which articulates with the lacrimal tubercle of the maxilla, and completes the upper orifice of the lacrimal canal; it sometimes exists as a separate piece, and is then called the **lesser lacrimal bone.**

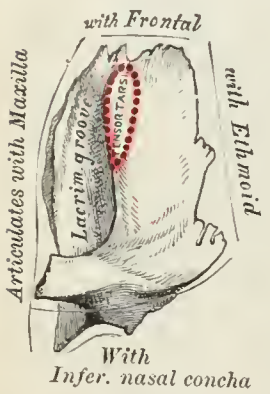

Fig. 163.—Left lacrimal bone. Orbital surface. Enlarged.

The **medial or nasal surface** presents a longitudinal furrow, corresponding to the crest on the lateral surface. The area in front of this furrow forms part of the middle meatus of the nose; that behind it articulates with the ethmoid, and completes some of the anterior ethmoidal cells.

Borders.—Of the *four borders* the **anterior** articulates with the frontal process of the maxilla; the **posterior** with the lamina papyracea of the ethmoid; the **superior** with the frontal bone. The **inferior** is divided by the lower edge of the posterior lacrimal crest into two parts: the posterior part articulates with the orbital plate of the maxilla; the anterior is prolonged downward as the **descending process**, which articulates with the lacrimal process of the inferior nasal concha, and assists in forming the canal for the nasolacrimal duct.

Ossification.—The lacrimal is ossified from a single center, which appears about the twelfth week in the membrane covering the cartilaginous nasal capsule.

Articulations.—The lacrimal articulates with *four* bones: two of the cranium, the frontal and ethmoid, and two of the face, the maxilla and the inferior nasal concha.

The Zygomatic Bone (Os Zygomaticum; Malar Bone).

The **zygomatic bone** is small and quadrangular, and is situated at the upper and lateral part of the face: it forms the prominence of the cheek, part of the lateral wall and floor of the orbit, and parts of the temporal and infratemporal fossæ (Fig. 164). It presents a malar and a temporal surface; four processes, the frontosphenoidal, orbital, maxillary, and temporal; and four borders.

Surfaces.—The **malar surface** (Fig. 165) is convex and perforated near its center by a small aperture, the **zygomaticofacial foramen**, for the passage of the zygomaticofacial nerve and vessels; below this foramen is a slight elevation, which gives origin to the Zygomaticus.

The **temporal surface** (Fig. 166), directed backward and medialward, is concave, presenting medially a rough, triangular area, for articulation with the maxilla, and laterally a smooth, concave surface, the upper part of which forms the anterior boundary of the temporal fossa, the lower a part of the infratemporal fossa. Near the center of this surface is the **zygomaticotemporal foramen** for the transmission of the zygomaticotemporal nerve.

Processes.—The **frontosphenoidal process** is thick and serrated, and articulates with the zygomatic process of the frontal bone. On its orbital surface, just within the orbital margin and about 11 mm. below the zygomaticofrontal suture is a tubercle of varying size and form, but present in 95 per cent. of skulls (Whitnall[1]).

[1] Journal of Anatomy and Physiology, vol. xlv. The structures attached to this tubercle are: (1) the check ligament of the Rectus lateralis; (2) the lateral end of the aponeurosis of the Levator palpebræ superioris; (3) the suspensory ligament of the eye (Lockwood); and (4) the lateral extremities of the superior and inferior tarsi.