jugular foramen; an eminence occasionally projects from the center of the fossa, and divides the foramen into two. The **anterior angle** is divided into two parts —a lateral joined to the squama by a suture (*petrosquamous*), the remains of which are more or less distinct; a medial, free, which articulates with the spinous process of the sphenoid.

At the angle of junction of the petrous part and the squama are two canals, one above the other, and separated by a thin plate of bone, the **septum canalis musculotubarii** (*processus cochleariformis*); both canals lead into the tympanic cavity. The upper one (*semicanalis m. tensoris tympani*) transmits the Tensor tympani, the lower one (*semicanalis tubæ auditivæ*) forms the bony part of the auditory tube.

The tympanic cavity, auditory ossicles, and internal ear, are described with the organ of hearing.

Tympanic Part (*pars tympanica*).—The tympanic part is a curved plate of bone lying below the squama and in front of the mastoid process.

Surfaces.—Its **postero-superior surface** is concave, and forms the anterior wall, the floor, and part of the posterior wall of the bony external acoustic meatus. Medially, it presents a narrow furrow, the **tympanic sulcus**, for the attachment of the tympanic membrane. Its **antero-inferior surface** is quadrilateral and slightly concave; it constitutes the posterior boundary of the mandibular fossa, and is in contact with the retromandibular part of the parotid gland.

Borders.—Its **lateral border** is free and rough, and gives attachment to the cartilaginous part of the external acoustic meatus. Internally, the tympanic part is fused with the petrous portion, and appears in the retreating angle between it and the squama, where it lies below and lateral to the orifice of the auditory tube. Posteriorly, it blends with the squama and mastoid part, and forms the anterior boundary of the tympanomastoid fissure. Its **upper border** fuses laterally with the back of the postglenoid process, while medially it bounds the petrotympanic fissure. The medial part of the **lower border** is thin and sharp; its lateral part splits to enclose the root of the styloid process, and is therefore named the **vaginal process**. The central portion of the tympanic part is thin, and in a considerable percentage of skulls is perforated by a hole, the **foramen of Huschke**.

The **external acoustic meatus** is nearly 2 cm. long and is directed inward and slightly forward: at the same time it forms a slight curve, so that the floor of the canal is convex upward. In sagittal section it presents an oval or elliptical shape with the long axis directed downward and slightly backward. Its anterior wall and floor and the lower part of its posterior wall are formed by the tympanic part; the roof and upper part of the posterior wall by the squama. Its inner end is closed, in the recent state, by the tympanic membrane; the upper limit of its outer orifice is formed by the posterior root of the zygomatic process, immediately below which there is sometimes seen a small spine, the **suprameatal spine**, situated at the upper and posterior part of the orifice.

Styloid Process (*processus styloideus*).—The styloid process is slender, pointed, and of varying length; it projects downward and forward, from the under surface of the temporal bone. Its proximal part (*tympanohyal*) is ensheathed by the vaginal process of the tympanic portion, while its distal part (*stylohyal*) gives attachment to the stylohyoid and stylomandibular ligaments, and to the Styloglossus, Stylohyoideus, and Stylopharyngeus muscles. The stylohyoid ligament extends from the apex of the process to the lesser cornu of the hyoid bone, and in some instances is partially, in others completely, ossified.

Structure.—The structure of the squama is like that of the other cranial bones: the mastoid portion is spongy, and the petrous portion dense and hard.

Ossification.—The temporal bone is ossified from *eight* centers, exclusive of those for the internal ear and the tympanic ossicles, viz., one for the squama including the zygomatic process, one for