

**The Greater Cornua or Thyrohyals** (*cornua majora*).—The greater cornua project backward from the lateral borders of the body; they are flattened from above downward and diminish in size from before backward; each ends in a tubercle to which is fixed the lateral hyothyroid ligament. The **upper surface** is rough close to its lateral border, for muscular attachments: the largest of these are the origins of the Hyoglossus and Constrictor pharyngis medius which extend along the whole length of the cornu; the Digastricus and Stylohyoideus have small insertions in front of these near the junction of the body with the cornu. To the **medial border** the hyothyroid membrane is attached, while the anterior half of the **lateral border** gives insertion to the Thyreohyoideus.

**The Lesser Cornua or Ceratohyals** (*cornua minora*).—The lesser cornua are two small, conical eminences, attached by their bases to the angles of junction between the body and greater cornua. They are connected to the body of the bone by fibrous tissue, and occasionally to the greater cornua by distinct diarthrodial joints, which usually persist throughout life, but occasionally become ankylosed.

The lesser cornua are situated in the line of the transverse ridge on the body and appear to be morphological continuations of it (Parsons<sup>1</sup>). The apex of each cornu gives attachment to the stylohyoid ligament;<sup>2</sup> the Chondroglossus rises from the medial side of the base.

**Ossification.**—The hyoid is ossified from *six* centers: two for the body, and one for each cornu. Ossification commences in the greater cornua toward the end of fetal life, in the body shortly afterward, and in the lesser cornua during the first or second year after birth.

## THE EXTERIOR OF THE SKULL.

The skull as a whole may be viewed from different points, and the views so obtained are termed the **normæ** of the skull; thus, it may be examined from above (**norma verticalis**), from below (**norma basalis**), from the side (**norma lateralis**), from behind (**norma occipitalis**), or from the front (**norma frontalis**).

**Norma Verticalis.**—When viewed from above the outline presented varies greatly in different skulls; in some it is more or less oval, in others more nearly circular. The surface is traversed by three sutures, viz.: (1) the **coronal sutures**, nearly transverse in direction, between the frontal and parietals; (2) the **sagittal sutures**, medially placed, between the parietal bones, and deeply serrated in its anterior two-thirds; and (3) the upper part of the **lambdoidal suture**, between the parietals and the occipital. The point of junction of the sagittal and coronal suture is named the **bregma**, that of the sagittal and lambdoid sutures, the **lambda**; they indicate respectively the positions of the anterior and posterior fontanelles in the fetal skull. On either side of the sagittal suture are the **parietal eminence** and **parietal foramen**—the latter, however, is frequently absent on one or both sides. The skull is often somewhat flattened in the neighborhood of the parietal foramina, and the term **obelion** is applied to that point of the sagittal suture which is on a level with the foramina. In front is the **glabella**, and on its lateral aspects are the **superciliary arches**, and above these the **frontal eminences**. Immediately above the glabella may be seen the remains of the **frontal suture**; in a small percentage of skulls this suture persists and extends along the middle line to the bregma. Passing backward and upward from the zygomatic processes of the frontal bone are the **temporal lines**, which mark the upper limits of the temporal fossæ. The zygomatic arches may or may not be seen projecting beyond the anterior portions of these lines.

<sup>1</sup> See article on "The Topography and Morphology of the Human Hyoid Bone," by F. G. Parsons, *Journal of Anatomy and Physiology*, vol. xliii.

<sup>2</sup> These ligaments in many animals are distinct bones, and in man may undergo partial ossification.