

with the lobule of the auricula. About 1 cm. below and in front of the apex of the mastoid process, the **transverse process of the atlas** can be distinguished. In front of the ear the **zygomatic arch** can be felt throughout its entire length; its posterior end is narrow and is situated a little above the level of the tragus; its anterior end is broad and is continued into the zygomatic bone. The lower border of the arch is more distinct than the upper, which is obscured by the attachment of the temporal fascia. In front, and behind, the upper border of the arch can be followed into the **superior temporal line**. In front, this line begins at the zygomatic process of the frontal bone as a curved ridge which runs at first forward and upward on the frontal bone, and then curving backward separates the forehead from the temporal fossa. It can then be traced across the parietal bone, where, though less marked, it can generally be recognized. Finally, it curves downward, and forward, and passing above the external acoustic meatus, ends in the posterior root of the zygomatic arch. Near the line of the greatest transverse diameter of the head are the **parietal eminences**, one on either side of the middle line; further forward, on the forehead, are the **frontal eminences**, which vary in prominence in different individuals and are frequently unsymmetrical. Below the frontal eminences the **superciliary arches**, which indicate the position of the frontal sinuses, can be recognized; as a rule they are small in the female and absent in children. In some cases the prominence of the superciliary arches is related to the size of the frontal sinuses, but frequently there is no such relationship. Situated between, and connecting the superciliary ridges, is a smooth, somewhat triangular area, the **glabella**, below which the **nasion** (*frontonasal suture*) can be felt as a slight depression at the root of the nose.

Below the nasion the **nasal bones**, scantily covered by soft tissues, can be traced to their junction with the nasal cartilages, and on either side of the nasal bone the complete outline of the **orbital margin** can be made out. At the junction of the medial and intermediate thirds of the supraorbital margin the **supraorbital notch**, when present, can be felt; close to the medial end of the infraorbital margin is a little tubercle which serves as a guide to the position of the lacrimal sac. Below and lateral to the orbit, on either side, is the **zygomatic bone** forming the prominence of the cheek; its posterior margin is easily palpable, and on it just above the level of the lateral palpebral commissure is the **zygomatic tubercle**. A slight depression, about 1 cm. above this tubercle, indicates the position of the **zygomaticofrontal suture**. Directly below the orbit a considerable part of the anterior surface of the maxilla and the whole of its alveolar process can be palpated. The outline of the **mandible** can be recognized throughout practically its entire extent; in front of the tragus and below the zygomatic arch is the condyle, and from this the posterior border of the ramus can be followed to the angle; from the angle to the symphysis the lower rounded border of the mandible can be easily traced; the lower part of the anterior border of the ramus and the alveolar process can be made out without difficulty. In the receding angle below the chin is the **hyoid bone**, and the finger can be carried along the bone to the tip of the greater cornu, which is on a level with the angle of the mandible: the greater cornu is most readily appreciated by making pressure on one side, when the cornu of the opposite side will be rendered prominent and can be felt distinctly beneath the skin.

**Joints and Muscles.**—The **temporomandibular articulation** is quite superficial, and is situated below the posterior end of the zygomatic arch, in front of the external acoustic meatus. Its position can be ascertained by defining the condyle of the mandible; when the mouth opens, the condyle advances out of the mandibular fossa on to the articular tubercle, and a depression is felt in the situation of the joint.

The outlines of the muscles of the head and face cannot be traced on the surface except in the case of the Masseter and Temporalis. The muscles of the scalp