

After birth (Fig. 183) the two segments of the bone become joined at the symphysis, from below upward, in the first year; but a trace of separation may be visible in the beginning of the second year, near the alveolar margin. The body becomes elongated in its whole length, but more especially behind the mental foramen, to provide space for the three additional teeth developed in this part. The depth of the body increases owing to increased growth of the alveolar part, to afford room for the roots of the teeth, and by thickening of the subdental portion which enables the jaw to withstand the powerful action of the masticatory muscles; but the alveolar portion is the deeper of the two, and, consequently, the chief part of the body lies above the oblique line. The mandibular canal, after the second dentition, is situated just above the level of the mylohyoid line; and the mental foramen occupies the position usual to it in the adult. The angle becomes less obtuse, owing to the separation of the jaws by the teeth; about the fourth year it is 140° .

In the adult (Fig. 184) the alveolar and subdental portions of the body are usually of equal depth. The mental foramen opens midway between the upper and lower borders of the bone, and the mandibular canal runs nearly parallel with the mylohyoid line. The ramus is almost vertical in direction, the angle measuring from 110° to 120° .

In old age (Fig. 185) the bone becomes greatly reduced in size, for with the loss of the teeth the alveolar process is absorbed, and, consequently, the chief part of the bone is below the oblique line. The mandibular canal, with the mental foramen opening from it, is close to the alveolar border. The ramus is oblique in direction, the angle measures about 140° , and the neck of the condyle is more or less bent backward.

The Hyoid Bone (*Os Hyoideum*; Lingual Bone).

The **hyoid bone** is shaped like a horseshoe, and is suspended from the tips of the styloid processes of the temporal bones by the stylohyoid ligaments. It consists of five segments, viz., a **body**, two **greater cornua**, and two **lesser cornua**.

The Body or Basihyal (*corpus oss. hyoidei*).—The body or central part is of a quadrilateral form. Its **anterior surface** (Fig. 186) is convex and directed forward and upward. It is crossed in its upper half by a well-marked transverse ridge with a slight downward

convexity, and in many cases a vertical median ridge divides it into two lateral halves. The portion of the vertical ridge above the transverse line is present in a majority of specimens, but the lower portion is evident only in rare cases. The anterior surface gives insertion to the Geniohyoideus in the greater part of its extent both above and below the transverse ridge; a portion of the origin of the Hyoglossus notches the lateral

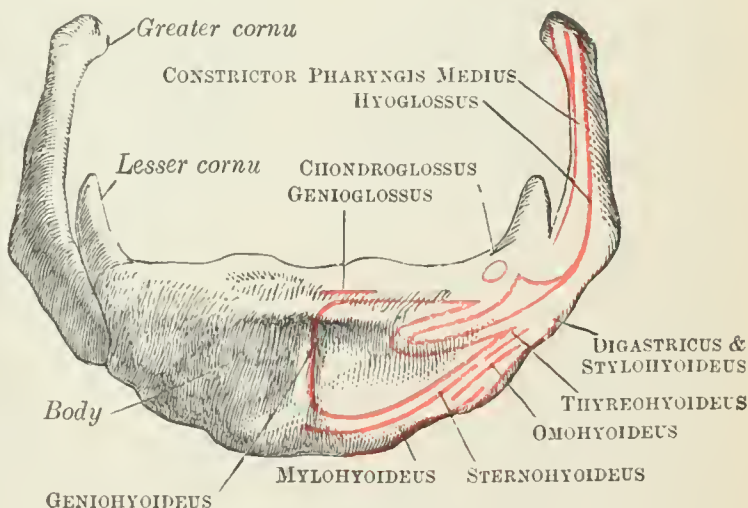


FIG. 186.—Hyoid bone. Anterior surface. Enlarged.

margin of the Geniohyoideus attachment. Below the transverse ridge the Mylohyoideus, Sternohyoideus, and Omohyoideus are inserted. The **posterior surface** is smooth, concave, directed backward and downward, and separated from the epiglottis by the hyothyroid membrane and a quantity of loose areolar tissue; a bursa intervenes between it and the hyothyroid membrane. The **superior border** is rounded, and gives attachment to the hyothyroid membrane and some aponeurotic fibers of the Genioglossus. The **inferior border** affords insertion medially to the Sternohyoideus and laterally to the Omohyoideus and occasionally a portion of the Thyreohyoideus. It also gives attachment to the Levator glandulae thyroideae, when this muscle is present. In early life the **lateral borders** are connected to the greater cornua by synchondroses; after middle life usually by bony union.