may be examined. The vault shows the cerebral aspects of parts of the frontal, parietal and occipital bones, and of the sutures between them. In the mid line is a shallow antero-posterior groove for the superior longitudinal blood sinus, and on each side of this irregular depressions are often seen for the Pacchionian bodies (see B rain) . The *base* (fig. 5) is divided into three fossae, anterior, middle and posterior, each being behind and on a lower level than the one in front of it.

The *anterior cranial fossa* is formed by the *cribriform plate of the ethmoid,* near the mid line, freely perforated for the passage of the olfactory nerves. In the mid line, near the front, is a triangular plate rising up which attaches the falx cerebri (see Brain) and is called the *crista galli.* On each side of this is the *nasal slit* for the nasal branch of the first division of the fifth nerve. On each side of the cribriform plate is the *orbital plate* of the frontal, while the back part of the fossa has for its floor the body of the sphenoid (pre-sphenoid) near the mid line and the lesser wing *(orbito-sphenoid)* on each side. Each lesser wing is prolonged back into a tongue-like process, the *anterior clinoid process,* just internal to which is the *optic foramen* (fig. 5, 11), and the two foramina are joined by the *optic groove* for the optic commissure. Behind this groove is a transverse elevation, the *olivary eminence* (22), which marks the junction of the *pre-* and *basi- sphenoid* parts of the body of the sphenoid bone.

The *middle cranial fossa* is like an hour-glass placed transversely, as there is a central constricted, and two lateral expanded, parts. The central part forms the *pituitary fossa* (fig. 5, 3) for the pituitary body (see Brain) and is bounded behind by the wall-like *dorsum sellae,* at the sides of which are the *posterior clinoid processes* (5, 4). The olivary eminence, pituitary fossa and dorsum sellae together resemble a Turkish saddle and are often called the *sella turcica.* The lateral expanded part of the middle cranial fossa is bounded in front by the great wing of the sphenoid (alisphenoid), behind by the front of the petrous part of the temporal *(periotic)* and laterally by the squamous part of the temporal *(squamosal).* Between the ali­sphenoid and orbitosphenoid is the *sphenoidal fissure* already noticed in the orbit, and a little behind this, piercing the alisphenoid, is the posterior opening of the *foramen rotundum,* through which the second division of the fifth nerve passes into the spheno-maxillary fossa. Further back the alisphenoid is pierced by the foramen ovale (*o*) and foramen sρinosum *(s),* both of which have been already noticed on the norma basalis. From the latter a groove for the middle meningeal artery runs forward and outward, and soon divides into anterior and posterior branches, the former of which deepens into a tunnel near the pterion. At the apex of the petrous bone and at the side of the dorsum sellae is the *middle lacerated foramen* (c), already noticed, and running inward to this from an aperture in the petrous bone is a groove for the great superficial petrosal nerve which is overlaid by the Casserian ganglion of the fifth nerve.

The *posterior cranial fossa* is pentagonal in outline, having an anterior border formed by the dorsum sellae, two antero-lateral borders, by the upper borders of the petrous bones, and two postero­lateral curved borders, by the grooves for the lateral sinuses (fig. 5, 11). In the middle of this fossa is the foramen magnum, bounded by the four parts of the occipital bone, which unite during child­hood. In front of the foramen magnum the floor of the fossa is formed by the basi-occipital and basi-sphenoid bones, which unite soon after twenty and form a steep slope, downward and backward, known as the *clivus (b).* This is slightly grooved from side to side, and lodges the pons and medulla.(see Brain) and the basilar artery.

On each side of the basi-occipital the posterior surface of the petrous bone bounds the fossa, and lying over the suture between them is the groove for the inferior petrosal venous sinus which leads backward and outward to the *jugular foramen* already noticed on the norma basalis. About the middle of the posterior surface of the petrous bone is the *internal auditory meatus,* through which pass the facial and auditory nerves, the pars intermedia (see Nerves, Cranial) and the auditory artery. Close to the antero-lateral part ' of the foramen magnum is the inner opening of the *anterior condylar foramen* which is sometimes double for the two bundles of the hypoglossal nerve, and a little in front of and outside this is a heaping up of bone called the *tuberculum jugulare,* which marks the union of the basi- and ex-occipital bones. The hindmost limit of the posterior fossa in the mid line is marked by an elevation called the *internal occipital protuberance,* and at this point the grooves for the superior longitudinal (5), and two lateral sinuses (11) join to form the *torcular Herophili* (see Veins). Running from the internal occipital pro­tuberance toward the foramen magnum in the mid line is the *internal occipital crest,* which attaches the falx cerebelli (see Brain) and on each side of this is the cerebellar fossa.

From the internal occipital protuberance the two wide grooves for the lateral venous sinuses (11 ) run nearly horizontally outward till they reach the posterior inferior angles of the parietal bones; here they turn downward with an S-haped curve, grooving the mastoid portion of the temporal and later on the exoccipital bones, until they reach the jugular foramina. To the edges of the hori­zontal parts of these grooves, and to the upper edge of the petrous bones the tentorium cerebelli is attached.

The Skull in Sagittal Section. If the skull be sawn down just to the right of the mid line and the left half be looked at, the appear­ance will be that reproduced in fig. 6. The section of the cranial bones shows that they are formed of an *outer* and *inner table of* hard bone, while between the two is a layer of cancellous tissue called the *diploe.* In certain places the diploe is invaded by ingrowths from the air passage which separate the two tables and form the air sinuses of the skull, though it is important not to confuse these with the intracranial blood or venous sinuses. In the section under con­sideration two of these spaces, the *frontal (fs)* and the *sphenoidal* (PS) *air sinuses* are seen. Behind the frontal sinus is the *crista galli* already mentioned, while below is the bony septum of the nose formed, by the *mes-ethmoid plate* (ME), the *vomer,* (V), and the line of junction of the palatine processes of the two maxillae and two palate bones. The re-entering angle between the mes-ethmoid and vomer is filled in the recent state by the septal cartilage (SC).

Below the face is the inner surface of the body and ramus of the *mandible,* and half-way down the latter is the *inferior dental foramen* where the inferior dental branch of the fifth nerve accompanied by its artery passes into the *inferior dental canal* in the substance of the bone to supply the lower teeth. Just in front of this foramen is a little tongue of bone called the *lingula* attaching the *spheno-mandi- bular (long internal lateral) ligament,* while running downward and forward from this is the mylo-hyoid ridge with the groove of the same name just below it.

If the cut surface of the right half of the skull be looked at, the outer wall of the nasal cavity will be seen with the three turbinated bones each overhanging its own meatus, but the anatomy of this part has already been dealt with in the article on the olfactory system (*q.v*.).

For further details see any standard anatomical textbook— Quain, Gray, Cunningham, &c. For charm of style, *The Human Skeleton* by G. Μ. Humphry (London, 1858), although somewhat out of date, is unsurpassed.

*Embryology.*

The *notochord* (see Skeleton: *Axial)* extends forward to the ventral surface of the middle cerebral vesicle (see Brain) or as far