

In lateral aspect it is roughly four-sided in outline, longest, and deeply and angularly concave above, and sinuous in front and behind with a convergence downward to the comparatively short base which is broadly and shallowly concave.

It consists of a plate-like main portion from which is given off an antero-superior alar extension and a postero-superior alar extension directed upward and forward and upward and backward respectively. Internally the bone is strengthened by two large flanges which are united above and diverge downward to opposite ends of the base.

The alar extensions, or wings, are both broad-based and narrow rapidly upward. The posterior one is flat, continues in the plane of the main portion of the bone and ends in a slender point. The anterior one leaves the general plane of the outer face, the contained external angle approaching 130 degrees. It is curved at right angles to its length presenting a transversely convex surface facing backward and upward, and, as the bone is thin, its lower, front surface is transversely concave.

Of the internal flanges the posterior one is the larger and the stouter of the two. It is carried backward and inward in much the same general line of direction as the upper part of the anterior wing, in fact a prolongation backward of the superior border of the wing forms the joint apical portion of the converging flanges. The more anterior and thinner flange is also directed backward but more inward than the larger one, and its inner anterior surface is a continuation backward of the inner concavity of the anterior wing. The two flanges partition the bone internally into three unequal areas; an anterior one, the largest, consisting of the moderately shallow, inner concavity of the anterior wing and its backward continuation by the anterior flange; a median one, the smallest of the three, deeply confined between the upwardly converging flanges; and a posterior one deeply but more openly enclosed by the posterior flange and the posterior wing.

The sutural union of the pterygoid with the quadrate is extensive and is effected by the application of the external face of the former to the inner face of the flange of the latter, the surface of contact on the pterygoid extending forward from the full height of its posterior border so as to include nearly the whole of the wing area and the lower portion of the bone to a short distance in advance of its inferior midlength. The slender upper end of the wing reaches up to within a short distance of the head of the quadrate, the front border of the wing and that of the flange of the quadrate being coincident for some distance down. The posterior border of the wing below its slender upper termination comes to a thin edge. Below the wing the posterior border thickens to some extent, is rugose and is applied to a ridge on the face of the flange of the quadrate. Still farther down the postero-inferior angle of the bone becomes stout, is roughened, and fits into the narrow concavity between the posterior border of the quadrate, where it is angularly most protrudent, and the base of the flange.

The pterygoid meets the maxillary in two small, separate surfaces, viz., one, infero-anteriorly where the bone curves outward and forward over the lower portion of the posterior end of the maxillary and ends pointedly, the other, a short distance higher up, where the anterior margin passes forward on the inner side of the posterior process of the maxillary.