

though apparently not ankylosed with, the maxillary plates. The transition from this to a desmognathous type would therefore be but very slight.

The palatines in the smaller forms are of generally flat form, with their posterior angles rounded off, closely apposed together for a very short way behind the posterior nares, and with fairly developed descending and ascending plates, the latter being recurved posteriorly and ankylosed to the vomer. This latter bone (Pl. VI. figs. 5 and 6) is always broad behind, of generally depressed form, and strongly bent downwards in front, its pointed extremity appearing between the maxillo-palatine processes at about their anterior edge.

In the larger forms the vomer becomes enormously broad, and keeled both above and below. The palatines meet for a much more considerable distance posteriorly, greatest in *Fulmarus*, and their descending plate becomes more pronounced; at its anterior end the bones of opposite sides nearly meet. The ascending plate, too, becomes very large, more or less embracing the vomer at its base, and being separated, especially in the Albatrosses, only by a narrow chink anteriorly from the posterior end of the equally upturned maxillo-palatine. The posterior margin of the palatines is more or less concave. The pterygoids are nearly straight, slightly compressed, cylindrical bones, which articulate mesially partly with the basisphenoidal rostrum, partly with the truncated posterior ends of the palatines. Well-developed basiptyergoid facets are present in all the forms (*vide* Pl. VI. figs. 2 and 4), except the Diomedeinæ, the Oceanitidæ, *Procellaria* and *Cymochorea*.<sup>1</sup> The quadrate, as in most birds, is two-headed. Its distal end has two distinct articular cartilage-coated areas, separated by a depression. The most external of these is oblique from behind outwards, and is somewhat saddle-shaped, being convex from side to side, and concave antero-posteriorly. The inner facet has its axis directed forwards and inwards, nearly parallel to that of the pterygoid bone. It is divided by a prominent oblique trochlea into an inner, nearly flat, surface, of triangular shape, and a more external, deeply grooved one, also of saddle shape. As might be expected, these features are less obvious in the feeble and smaller, than in the stronger and larger, species of the group.

The foramen magnum is more or less reniform, with the major axis transverse, in the small species, whereas in the biggest it is oval, especially in *Ossifraga*, with the long axis vertical. The moderately sized species are here again intermediate in structure.

The mandible has no recurved angular process: its posterior end is more or less inturned and truncated behind, the truncated surface being of triangular shape. The articular surfaces are two in number, and, of course, of inverse shape to the corresponding facets on the quadrate bone. One or more pneumatic foramina enter the bone at this point.

*Axial skeleton*.—The number of vertebræ varies from thirty-eight to forty-two, but

<sup>1</sup> *Halocyptena* has not yet been examined in this respect: it probably resembles the last two genera named.