

membrane, which fills up the angle bounded by the two halves of the lower jaw bone. The margins of this portion of mucous membrane are serrated, and form a double line of stunted papillæ, which project upwards and rest against the lateral margins of the tongue. On each side of the floor of the mouth, immediately in front of the gape, is a circumscribed group of conical papillæ, the apices of which are directed backwards. This group, for purposes of description, may be termed the buccal group.

*The roof of the mouth or palate* (Pl. XIII. fig. 2), like the tongue, is covered by a series of stout recurved conical papillæ. These are arranged in six longitudinal rows, to which, however, opposite the angle of the mouth, two others are added. There are therefore eight rows in all, but only six of them extend the whole length of the palate. These rows are arranged symmetrically—four on either side of the middle line. As on the tongue, so on the palate, the largest papillæ are met with in the central rows, those forming the lateral rows diminishing gradually in size. In front the roof of the mouth is completed by two elongated hardened plates, which fill up the angle formed by the junction of the two superior maxillary bones of opposite sides. These plates are smooth and altogether devoid of papillæ.

*Salivary Glands.*—The salivary or buccal glands consist of a number of secretory follicles, which, in accordance with their position, may be divided into three groups.

The first or parotid group is situated immediately behind the angle of the mouth. The glands themselves lie immediately beneath the mucous membrane of the cheek, and their ducts open by means of a linear series of apertures immediately behind the gape.

The second or palatal group is met with beneath the mucous membrane of the palate. The glands composing it are somewhat irregularly distributed, but are met with in greatest numbers along a transverse line joining the two angles of the mouth.

The third or lingual series consists of a quantity of isolated follicles situated on the outer side of each of the laryngeal pads. The openings of their ducts are clearly distinguishable on the mucous membrane of this region.

#### *Variations in respect of the Mouth.*

In *Eudyptes chrysocome* from Kerguelen (Pl. XIII. fig. 1) the papillæ covering the dorsum linguæ are arranged in seven instead of nine rows, as in *Eudyptes chrysocome* from Tristan d'Acunha. Of these rows one corresponds to the middle line of the tongue, while the others are placed three on either side of the middle line.

In *Eudyptes chrysocome* from the Falkland Islands, the laryngeal pads together measure  $\frac{3}{4}$ ths of an inch in length and  $\frac{1}{8}$ ths in greatest breadth. The papillæ covering them are of smaller size and less numerous than in the specimens of this species from Tristan d'Acunha and from Kerguelen. Indeed the laryngeal pads of this species may be said to be almost smooth.