

so far back as to come into relation with, and have any effect upon the organ of voice. This probably explains the persistently braying character of the voice of the Penguins, which all who have listened to these birds in their native haunts describe as being uniform in tone, and capable of but little modulation.

The Bronchial Tubes.—Each of the bronchial tubes, from the point of bifurcation of the trachea to the corresponding lung, measures in *Eudyptes chrysocome* from Tristan d'Acunha 1 inch in length. Each diminishes in diameter from its commencement to its termination. The bronchial rings, exclusive of those which enter into the formation of the syrinx, are twelve in number, and, unlike those which form the trachea, are incomplete, and form a series of cartilaginous bars which are confined to the inferior or ventral surface of the bronchial tube. The bronchial bars are soft and flexible, and therefore differ from those met with in the trachea, which are rigid and osseous in character. The bronchial bars diminish rapidly in length from before backwards. The dorsal wall of each bronchus is entirely membranous from end to end, this membrane constituting the vibrating plate already described in connection with the lower larynx.

In both specimens of *Eudyptes chrysocome* from Tristan d'Acunha, which I examined, a peculiar dense fibrous pad (Pl. XIX. fig. 1) was closely adherent to this membrane. The exact nature or function of this body is difficult to determine, but that it forms no essential part of the laryngeal or bronchial apparatus is shown by the fact that it is absent in every other species of Penguin which I have dissected. This remark holds good, not only of other species, but also of specimens of *Eudyptes chrysocome* from the Falkland Isles (Pl. XIX. fig. 3) and from Kerguelen, and were it not for the fact that it was observed in two specimens of *Eudyptes chrysocome* from Tristan, I should certainly have regarded it as an individual and possibly pathological occurrence. In view of the fact stated, however, its occurrence ought probably to be regarded as a distinctive peculiarity of a local form of one species of *Eudyptes*. Farther research, however, is necessary to decide this point. The terminal portion of each bronchus is entirely membranous and altogether devoid of cartilaginous bars.

MUSCLES OF THE TRACHEA AND BRONCHI.

1. *Cleido-thyroid muscle.*

Sterno-thyroidien, Vicq d'Azyr, 1773, p. 581, No. 1.

Gabelknochen-Luftröhren-Muskel, Tiedemann, Bd. i. p. 667, No. 2.

Ypsilo-trachéens, Cuvier, vol. iv. p. 466.

Ypsilo-trachéalis, Meckel, vol. x. p. 340.

Cleido-trachéen, Gervais and Alix, p. 17.

Attachments.—The cleido-thyroid muscle (Pl. VIII.) arises from the anterior border of the clavicle, about $\frac{1}{2}$ an inch from its junction with the bone of the opposite side. The two