

lies next the sternum; the posterior border extends from about 3 inches to the outer side of the xiphi-sternum to the forearm, and there joins the dorso-abdominal part. The band of fibres, representing the handle of the fan, stretches outwards over the inner surface of the forearm, and blends with its deep fascia. A few fibres of the anterior border turn over the shoulder to join the cervico-scapular part. In the large *Phoca vitulina* the pectoral part was wanting.

*d. The Cervico-scapular* begins  $1\frac{1}{2}$  inch posterior to the spine of the scapula, covers the back of the shoulder, the dorsum, and the posterior part of the side of the neck, and reaches as far forwards as the orbits. Laterally it joins the lateral cervical part, and in the ventral thoracic region the pectoral part over the great humeral tuberosity. It *arises* about 2 inches posterior to the scapular spine, from the aponeurotic band covering the spines of the vertebræ. This aponeurosis runs to a point anterior to the scapula, from whence it takes origin from the ligamentum nuchæ, as far forwards as the occipital bone, and then from a fine fibrous slip continuous from this forwards between the parietal eminences to opposite the orbit.

The posterior fibres are transverse, and sweep over the deltoid and the trapezius. A little further forwards they turn round the humerus to the ventral thoracic region to unite with the pectoral part over the shoulder joint. From here the fibres begin to turn upwards, and curl round the posterior lateral region of the neck, stopping upon the cephalo-humeral muscle, so that part of it is uncovered by the panniculus. The middle fibres have the same direction, and join the lateral cervical part. The bulk of the anterior fasciculi are directed forwards and outwards, and terminate upon the vertex of the cranium, midway between the lambdoidal and coronal sutures, near the posterior termination of the zygoma. The fibres, arising from the fibrous slip, extending from midway between the lambdoidal and the coronal sutures to near the root of the nose, have a peculiar distribution.<sup>1</sup> The most posterior fasciculus stretches onwards and outwards, to end above the middle of the orbit; the next fasciculus stretches outwards and ends to the inner side of the last. In this way is formed a muscular slip, which, with its fellow of the opposite side, forms a V with a leg resting above each orbit. A little anterior to the root of the zygoma a muscular slip about half an inch broad ascends, and a few of its fibres join the two or three which cross the line midway between the lambdoidal and coronal sutures. The fibres separated by this arrangement are connected by fasciæ stretching between these groups. This part is with difficulty removed from the cephalo-humeral and anterior part of the trapezius, which lie beneath. In the large *Phoca vitulina* the cervico-scapular part was fused with the dorso-abdominal and not defined as in the smaller specimen. The fibres were very coarse and stronger than the dorso-abdominal. They had gaps between them, and the fibres were closely adherent to the fascia above.

*e. The Dorso-abdominal part.* The extreme hindmost fibres lie in the hollow between the tibia and the sides of the caudal vertebræ behind the great trochanter of the femur. Anteriorly, the fibres extend nearly as far forwards as the spine of the scapula. The intermediate ones embrace the back, the flank, and the side wall of the thorax, and reach as far forwards laterally as the outer edge of the abdominal pectoral. From the plane of the xiphi-sternum to the flipper the fibres intermingle with the pectoral part. Posterior to the elbow joint and the forearm it passes from the side of the thorax over the outer surface of the ulna. It *arises* from the spines of the vertebræ by a broad aponeurotic band, which is continuous posteriorly with the deep fascia over the tail. This fibrous origin is narrow at the hinder extremity, expands over the middle of the back, and

<sup>1</sup> They represent the occipito-frontalis.