

anticus minor and pectoralis minor muscles, and unites with the large anterior thoracic vein from the pectoralis major to form the subclavian. As the humeral vein passes upwards it receives a branch of large size opposite the elbow joint. This branch is formed by the union of several small branches, which arise near the tip of the dorsal surface of the wing, and, after passing from the dorsal to the ventral or concave surface of the organ, through the interosseous space between the radius and ulna, where it receives some small twigs from the extremity of the concave surface of the wing, ascends to open into the trunk of the humeral vein opposite the elbow joint.

#### *The Subclavian Vein*

Is formed by the junction of the humeral and anterior thoracic veins, close to the axillary border of the scapula. After entering the thorax, it lies parallel with and above the artery of the same name, and terminates by uniting with the jugular to form the innominate vein. The subclavian vein, before entering the thorax, receives a large branch from the scapular region. This branch lies between the scapula and the wall of the chest. Within the cavity of the chest the subclavian vein receives branches corresponding to those of the companion artery. The *vertebral* vein, which closely accompanies the vertebral artery, opens into the angle of junction of the subclavian and jugular veins. In some species (*Pygosceles*) the vertebral vein joins the subclavian, while in others (*Spheniscus demersus* and *Spheniscus minor*) it pours its blood into the jugular vein. In either case the termination of the vertebral is close to the point of junction of the great veins of the head and wing.

There is not the slightest appearance in the wing of the Penguin of a venous rete mirabile, comparable to that already described in connection with the humeral artery.

#### *The Innominate Vein.*

Formed by the junction of the jugular and subclavian veins, the innominate vein (Pl. XI. fig. 1) passes backwards, and crossing below the pulmonary and above the innominate artery of the same side, opens into the cavity of the right auricle in the usual manner. The position of the orifices of the innominate veins is described in connection with the heart. Their cardiac extremities, as well as that of the inferior vena cava, are much enlarged, and recal to mind the appearance of the corresponding dilatation of the inferior vena cava of the Seals.

#### *The Crural Vein*

Is formed behind the knee joint by the union of branches which correspond to those of the crural artery. It travels upwards along with that artery to the upper border of the adductor magnus, over which it passes to reach the inner side of the thigh. From the inner side