

this, fewer of the nerves take part in the formation of the plexus. This is very well exemplified in the case of the Dolphin and Ass respectively. In the former, where the cervical vertebræ are all compressed together so as to reduce the neck to a minimum, we find that the plexus is formed by the posterior five cervical nerves and the first two dorsal nerves.¹ In the Ass,² on the other hand, the last two cervical nerves and the first dorsal nerve are the only nerves which take part in the formation of the plexus. In the Horse and in Ruminants³ the brachial nerves are represented by the last three cervical and the first and second dorsal nerves, and in man and animals with a neck of medium length the plexus is formed by the last four cervical nerves and the first and second dorsal nerves, as, for example, the Dog,⁴ the Cat,⁵ &c.

But this rule does not hold good in every case. In the Pig,⁶ whose neck cannot be called long, the plexus is formed by the same nerves as in the Ass, and the Jaguar and the Fox⁶ in this respect resemble the Horse.

In both the *Thylacine* (Pl. I. fig. 6) and *Cuscus* (Pl. II. fig. 6) the brachial plexus is formed, as in man, by the anterior primary divisions of the posterior four cervical nerves and of the first dorsal nerve. In the *Thylacine*, however, only a portion of the 5th cervical nerve enters the plexus. The 5th cervical nerve in this animal divides into two equal parts close to the intervertebral foramen, and diverging widely from each other, the posterior of these joins the plexus, whilst the anterior proceeds forwards under cover of the omo-hyoid muscle (*a*), and joins the 4th cervical nerve. It also gives cutaneous twigs to the neck and outer and dorsal aspects of the shoulder (*b* and *c*).

In the *Thylacine* the branches entering into the constitution of the brachial plexus join so as to present a more or less looped appearance, but the general plan of the plexus is very indefinite, irregular, and complicated (Pl. I. fig. 6).

The branches which proceed from it arise in the following manner:—(1) From the 5th and 6th cervical nerves the suprascapular (*s.*), the phrenic (*p.*), and the nerve to the subclavius (*s.c.*); (2) from the 6th and 7th the subscapular nerves (*s.s.*) and the external respiratory (*e.r.*); (3) from the 7th muscular branches to the panniculus carnosus (*p.c.*) and pectoral muscles (*p.m.*), the circumflex (*c.f.*), and the nerves corresponding to the musculo-cutaneous in man (*m.c.*); (4) from the 7th, 8th, and 1st dorsal the median (*m.*) and musculo-spiral (*m.s.*); (5) from the 8th and 1st dorsal the ulnar (*u.*) and internal cutaneous (*i.c.*).

In the *Cuscus* the brachial nerves have a more definite arrangement (Pl. II. fig. 6). They first unite so as to form four nervous loops, and from these two large trunks proceed—the one deriving fibres from the 5th, 6th, and 7th cervical nerves, and the other

¹ Spinal Nervous System of the Porpoise and Dolphin, Jour. Anat. and Phys., p. 217, 1876.

² Swan's Comparative Anatomy of the Nervous System.

³ Chauveau's Comparative Anatomy.

⁴ Graduation Thesis on the Anatomy of the Dog, by J. H. Scott, M.D., unpublished, but to be consulted in the Library of the University of Edinburgh.

⁵ Chauveau's Comparative Anatomy.

⁶ Swan's Comparative Anatomy of the Nervous System.