

trachea, and from its recurrent nerve; on the left side from the recurrent nerve only; passing inward, they end in the deep part of the cardiac plexus.

The **Anterior Bronchial Branches** (*rami bronchiales anteriores; anterior or ventral pulmonary branches*), two or three in number, and of small size, are distributed on the anterior surface of the root of the lung. They join with filaments from the sympathetic, and form the **anterior pulmonary plexus**.

The **Posterior Bronchial Branches** (*rami bronchiales posteriores; posterior or dorsal pulmonary branches*), more numerous and larger than the anterior, are distributed on the posterior surface of the root of the lung; they are joined by filaments from the third and fourth (sometimes also from the first and second) thoracic ganglia of the sympathetic trunk, and form the **posterior pulmonary plexus**. Branches from this plexus accompany the ramifications of the bronchi through the substance of the lung.

The **Esophageal Branches** (*rami œsophagei*) are given off both above and below the bronchial branches; the lower are numerous and larger than the upper. They form, together with the branches from the opposite nerve, the **esophageal plexus**. From this plexus filaments are distributed to the back of the pericardium.

The **Gastric Branches** (*rami gastrici*) are distributed to the stomach. The right vagus forms the **posterior gastric plexus** on the postero-inferior surface of the stomach and the left the **anterior gastric plexus** on the antero-superior surface.

The **Celiac Branches** (*rami cœliaci*) are mainly derived from the right vagus: they join the celiac plexus and through it supply branches to the pancreas, spleen, kidneys, suprarenal bodies, and intestine.

The **Hepatic Branches** (*rami hepatici*) arise from the left vagus: they join the hepatic plexus and through it are conveyed to the liver.

#### THE ACCESSORY NERVE (N. ACCESSORIUS; ELEVENTH NERVE; SPINAL ACCESSORY NERVE) (Figs. 792, 793, 794).

The **accessory nerve** consists of two parts: a **cranial** and a **spinal**.

The **Cranial Part** (*ramus internus; accessory portion*) is the smaller of the two. Its fibers *arise* from the cells of the **nucleus ambiguus** and emerge as four or five delicate rootlets from the side of the medulla oblongata, below the roots of the vagus. It runs lateralward to the jugular foramen, where it interchanges fibers with the spinal portion or becomes united to it for a short distance; here it is also connected by one or two filaments with the jugular ganglion of the vagus. It then passes through the jugular foramen, separates from the spinal portion and is continued over the surface of the ganglion nodosum of the vagus, to the surface of which it is adherent, and is distributed principally to the pharyngeal and superior laryngeal branches of the vagus. Through the pharyngeal branch it probably supplies the *Musculus uvulæ* and *Lévator veli palatini*. Some few filaments from it are continued into the trunk of the vagus below the ganglion, to be distributed with the recurrent nerve and probably also with the cardiac nerves.

The **Spinal Part** (*ramus externus; spinal portion*) is firm in texture, and its fibers *arise* from the motor cells in the lateral part of the anterior column of the gray substance of the medulla spinalis as low as the fifth cervical nerve. Passing through the lateral funiculus of the medulla spinalis, they emerge on its surface and unite to form a single trunk, which ascends between the ligamentum denticulatum and the posterior roots of the spinal nerves, enters the skull through the foramen magnum, and is then directed to the jugular foramen, through which it passes, lying in the same sheath of dura mater as the vagus, but separated from it by a fold of the arachnoid. In the jugular foramen, it receives one or two filaments from the cranial part of the nerve, or else joins it for a short distance and then separates from