muscular fibre. In the cerebrum, the cortical substance is found upon its external surface, while the medullary constitutes its interior portion. The tenuous ducts of the cortical spherules, go from the circumference of the brain to its centre. As soon as they emerge from the gray substance, they being comparatively free from blood vessels, form a white medullary substance. This last substance is linear, because it is formed of assembled ducts, and are anatomically called *medullary fibres.*

The four nervous centres, the cerebrum, cerebellum, medulla oblongata, and medulla spinalis, give off and receive what are named *nerves;* the former are *motive*, the latter are *sensitive.* The number of the motive are thirty-five pairs, and the number of the sensitive are thirty-four. The two kinds as they go to or from these centres, are generally enveloped in the same sheath: there are, however, five exceptions to this. As soon as the medullary fibres pass out of the great centres, they are clustered together into bodies resembling long cords, and their first divisions are called nervous *fibres.* Their least unities, however, are termed nervous *filaments.*

There is a little ganglion (small nervous enlargement) in the anterior part of the longitudinal fissure of the cerebrum, which gives off two small fibres. They descend, pass through the base of the skull, down the neck on each side of the spine, at the junction of the transverse processes of the vertebræ with their bodies, through the thorax, the abdomen, pelvis, and finally meet at the inferior end of the sacrum (last bone, but one, of the spine). All along their tracks, they are continually forming enlargements, termed *ganglions.* The curvical portion of each side has three, the dorsal twelve, the lumbar five, and sacral five. These ganglions give off fine filaments, which become intimately associated with similar filaments from the intercostal, par vagnum, portio dura, and trigeminus (nerves of the back and head). After their union with these, they go to different parts of the face, to the roots of the lungs, the arch of the aorta, the origins of the celiac, the large and small mesenteric, the emulgent, primitive, external and internal iliac arteries, and at these different points form enlargements and networks, called plexuses. These centres also give off filaments which creep upon the walls of bloodvessels, and follow them to their utmost divisions.

The *motive* nerves which go from the nervous centres, are of *two* kinds: one is *voluntary*, the other *involuntary;* the former is under the government of the will, or cerebrum, the latter under that of nature or the cerebellum.

Muscular fibre is the *material body* of all *apparent* motion in organic formations, and that which the *cortical glandules* elaborate from the sublimated essences carried to them by the carotid and vertebral arteries, divided to their utmost tenuity, is the *soul* of all *apparent* motion in organic forms. The *connecting link* of the body and soul of organic motion, is the centrifugal nervous tissue. When this link is severed, the *body* of motion is powerless. This link, the efferent nerves, has its origin in the *cortical glandules* of the great nervous centres, and its termination in the *unities* of muscles.

The muscular tissue is the *servant* of the etherial fluid manufactured by the cineritious portion of the brain, and is high servant to the mind and true soul.

The muscular tissue has the same divisions that the nerves has—the voluntary and involuntary. The former is active only when we will to do something; then it moves a part or the whole of the body, according to our wishes.

The latter division of muscles has periods of labor and rest; but as a general thing, those periods are so short that we do not ordinarily recognize them. This class of muscles is found in the alimentary canal, in the arteries, in the veins, in the lymphatics, in the lacteals, in the ducts of all the glands, in the bladder, in the uterus and its appendages, in the heart, in the diaphragm, and in the intercostal muscles.

The leasts of muscles, their unities, called *fibrillæ*, are fine threads, composed of minute