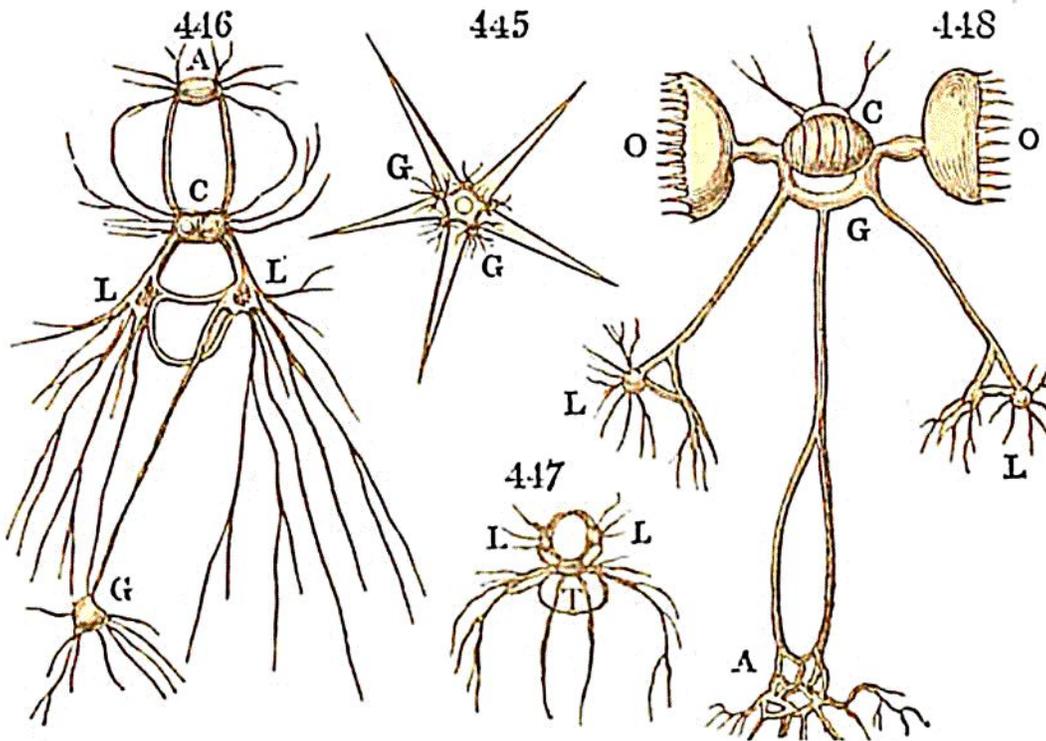


origin to the motor nerves, while the subjacent column sends out the nerves of sensation.

In the next great division of the animal kingdom, which includes all molluscous animals, the nervous ganglia have a circular, instead of a longitudinal arrangement. • The first example of this type occurs in the *Asterias*, where the nervous system (Fig. 445) is composed of small ganglia, equal



in number to the rays of the animal, and disposed in a circle round the central aperture or mouth, but occupying situations intermediate between each of the rays. A nerve is sent off from both sides of each ganglion, and passes along the side of the rays, each ray receiving a pair of these nerves. In the *Holothuria* there is a similar chain of ganglia, encircling the œsophagus; and the same mode of arrangement prevails in all the bivalve *Mollusca*, except that, besides the œsophageal ganglia, others are met with in different parts of the body, distributing branches to the viscera, and connected with one another and with the œsophageal ganglia, by filaments, so as to form with them one continuous nervous system. In the Gasteropoda, which are furnished with a distinct head and organs of the higher