

matter of Schwann, and by some it is believed to be produced by the action of the reagents employed to show it.

The **medullary sheath**, or **white matter of Schwann** (Fig. 631), is regarded as being a fatty matter in a fluid state, which insulates and protects the essential part of the nerve—the axis-cylinder. It varies in thickness, in some forming a layer of extreme

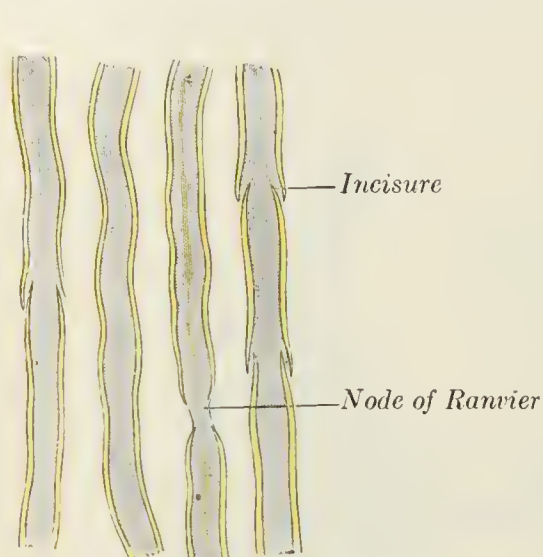


FIG. 630.—Medullated nerve fibers. $\times 350$.

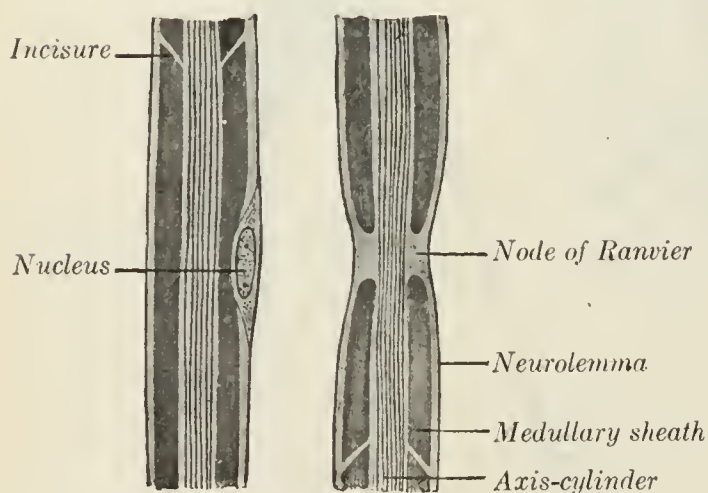


FIG. 631.—Diagram of longitudinal sections of medullated nerve fibers. Osmic acid.

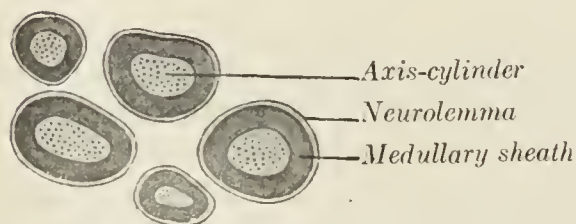


FIG. 632.—Transverse sections of medullated nerve fibers. Osmic acid.



FIG. 633.—Diagram of medullated nerve fibers stained with osmic acid. $\times 425$. (Schäfer.) R. Nodes of Ranvier. a. Neurolemma. c. Nucleus.

thinness, so as to be scarcely distinguishable, in others forming about one-half the nerve fiber. The variation in diameter of the nerve fibers (from 2 to 16μ) depends mainly upon the amount of the white substance, though the axis cylinder also varies within certain limits. The medullary sheath undergoes interruptions in its continuity at regular intervals, giving to the fiber the appearance of constriction