

to reflex action. If in the frog the sciatic nerve be cut or the corresponding posterior roots severed, by which in the one case the out-going in the other the in-coming nerve impulses are cut off, the limb affected tends to become limp and hangs lower than the other, illustrating loss of *tonus*. The same loss of tone can be seen in the human face in consequence of weariness or of depressing emotions. We can truly become "down in the mouth," and many a man after a day of fatigue and worry looks years older because of the consequent diminution in the mus-

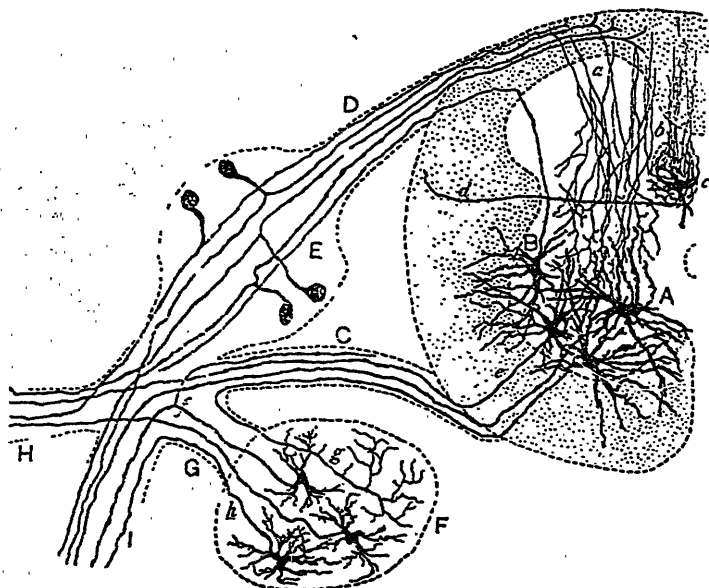


FIG. II. TRANSVERSE SECTION THROUGH HALF-SPINAL CORD SHOWING THE GANGLIA BY GOLGI'S METHOD. (Halliburton after Ramon y Cajal.)

A, Anterior cornual cells, B, axis-cylinder process of one of these going to posterior root; C, anterior (motor) root; D, posterior (sensory) root; E, spinal ganglion on posterior root; F, sympathetic ganglion; G, ramus communicans; H, posterior branch of spinal nerve; I, anterior branch of spinal nerve; a, long collaterals from posterior root fibres reaching to anterior horn; b, short collaterals passing to Clarke's column; c, cell in Clarke's column sending an axis cylinder process; d, to the direct cerebellar tract; e, fibres of the anterior root; f, axis-cylinder from sympathetic ganglion cell dividing into two branches, one to the periphery, the other toward the cord; g, fibre of the anterior root terminating by an arborization in the sympathetic ganglion; h, sympathetic fibre passing to periphery.

cular tone, and this is characteristic of age, for the best, fullest life of muscle is of short duration. The swelling importance of the middle-man that comes with ripening years, is not to be regarded as a sign of physiological well-being, though it may be associated with worldly prosperity. It cannot be explained alone by a plentiful supply of sustenance and a plentiful lack of exercise leading to accumulation of