

THE ACOUSTIC NUCLEUS AND THE INTEROLIVARY TRACT.—Freud has examined the medulla of fœtuses of 5-6 months' age, under Meynert's direction. At this time the acoustic fibres are medullated. He finds that the acoustic roots lie in a row from without inward, and end wholly in gray nuclei of the side on which they enter. The outer fibres end in the anterior nucleus, the middle fibres and a portion of the inner fibres end in the inner nucleus, the remainder of the inner fibres turn about and pass to the outer nucleus. From these nuclei new fibres arise. There is a bundle from the anterior to the inner nucleus. There are arched bundles from the inner nucleus to the decussation in the nucleus tegmenti of the cerebellum. There are fibræ arcuatæ between the inner nuclei which pass through the facial nucleus, and between the outer nuclei which pass through the area lying ventral of the former. There are bundles issuing from the anterior nuclei, and these make up the corp. trapezoides and pass through the upper olivary nucleus. After crossing the median line they turn downward into the interolivary tract. At this time there are no fibres to be found above the corp. trapezoides which correspond to the interolivary fibres in their stage of development; at the level of the decussation of the corp. trapezoides the interolivary tract begins; no other continuation of this bundle can be found; hence Freud concludes that the two tracts are continuous. But since the interolivary tract passes to the opposite posterior columns, this tract connects these columns with the anterior acoustic nucleus. The other constituents of the interolivary tract (lemniscal fibres) are not developed at this age. This conclusion agrees with the observation of Vejas, that after extirpation of the posterior column of one side an atrophy could be traced as high as the corp. trapezoides in the interolivary tract, but no higher (see *Periscope*, Jan., 1885).—*Neurologisches Centralblatt*, June 15, 1885.

THE TRACTS IN THE SPINAL CORD.—Homén of Helsingfors has experimented upon dogs to determine the direction, time, and exact character of degenerative changes in the tracts of the spinal cord. By using Weigert's methods of staining with fuchsin and hematoxylin it is possible to distinguish the changes occurring in the axis-cylinder from those due to degeneration of the myelin or of the connective tissue. Homén finds that in all cases the primary change after section of the cord consists in a granular degeneration of the axis-cylinder. The axis-cylinder appears as a granular light-yellow mass, while the myelin is intact and is surrounded by the normally stained blue erythrophile ring. Later the cylinder becomes swollen, the space between it and the colored ring becomes less; the myelin is involved in the degeneration, and the two cannot be distinguished from one another. Lastly the appearance of Deiters' cells indicates the participation of the connective tissue and the terminal stage of the process.