Periscope.

ANATOMY AND PHYSIOLOGY.

124. **UNTERSUCHUNGEN ÜBER DIE ANATOMIE UND PATHOLOGIE DES UNTERSTEN RÜCKENMARKSABSCHNITTES** (Investigations on the Anatomy and Pathology of the Lowest Portion of the Spinal Cord). L. R. Müller (Deutsche Zeitschrift für Nervenheilkunde, 14, 1898, 2, p. 1).

Müller has made a careful study of the anatomy and pathology of the conus in man. He gives a summary of his most important findings. The anterior roots are much less numerous than the posterior in the conus, and the large motor ganglion cells are absent from the anterior horns below the third sacral segment; instead of these, groups of multipolar ganglion cells are found in the intermediate gray matter between the anterior and posterior horns. Fibers radiate in the conus from the posterior columns into the gray matter, and the posterior gray commissure is absent below the second sacral segment. The crossed pyramidal tracts do not extend below the third sacral segment; below this level the lateral columns are filled with fibers of other origin. Numerous fibers from the ganglion cells in the intermediate gray matter of the conus pass into the posterior part of the lateral columns, and fibers from the lateral columns pass into the posterior roots. The histology of the conus differs essentially from that of the remainder of the cord. Spinal ganglia belonging to the posterior roots of the conus may occasionally be found *within* the dura, and the lowest posterior roots not infrequently contain isolated spinal-ganglion cells. The posterior columns disappear in the lower part of the conus before the other columns disappear, and the central canal becomes enlarged and occupies the area of the posterior columns. The posterior columns in the lower part of the cord contain mostly centrifugal fibers, but the oval field of the lumbar region, the dorso-medial sacral bundle, and the triangular zone, degenerate differently in descending degeneration of the posterior columns. Descending degeneration in the posterior columns of the lumbar and sacral regions occurs only after an almost complete transverse lesion, and seldom extends below the third sacral segment, and the triangular field remains almost always intact. Descending degeneration is never found in the lateral columns in the lower sacral region. The degeneration in the posterior columns of the conus in tabes and cauda-equina lesions is slight. One of Müller's cases shows that a primary acute inflammatory affection of the cauda may occur, and cause the same symptoms as conus lesions.

SPILLER.

125. **ZUR ANATOMIE UND PHYSIOLOGIE DES UNTEREN SCHEITELLAP-
SCHENS** (The Anatomy and Physiology of the Inferior Parietal Lobes). C. von Monakow (Archiv f. Psychiatrie, Vol. 31, 1898-99, p. 1).

This is a paper of some seventy pages, and presents the author's preliminary contribution to the subject of the localization of the function of the gyrus angularis and the gyrus supramarginalis, with the anatomy of these parts of the parietal lobes. A number of observa-