

the exception of the Clark's cells and those in the lateral tracts, as *middle* cells, because they cannot be differentiated from each other either morphologically or anatomically. The cells are usually polygonal in shape in the higher scale of the mammal, and oval in form in the lower mammal. In all animals the position of the cells is in the commissural region of the cervical, lumbar and sacral areas, and in the dorsal where the Clark's cells are developed. In those parts of the cord where the Clark's cells are fully developed the position of the middle cells is always ventro-lateral to Clark's cells and at times some are in the columns proper. The number of the middle cells is greatest in the cervical and lumbar enlargement. In the dorsal region of the spinal cord in men and animals, where Clark's cells are present, the middle cells diminish in number with the increase of Clark's column. The author believes that the increase of the Clark's cells with a corresponding diminution of the middle cells, or vice versa, offers a hypothetical explanation of the existence of a physiological connection in the sense of a reciprocal functional substitution between these two kinds of cells (middle cells and Clark's cells). Moreover, his views are ratified by the following anatomical facts: (1) In those regions in which Clark's columns are interrupted in their course the middle cells appear on the increase at the corresponding level. (2) Quite often the Clark's cells enter the middle cells and vice versa. (3) Morphological transformation exists between these two kinds of cells. (4) The middle cells like the Clark's cells appear to receive fibers from the posterior roots and most probably form the direct cerebellar tract ventral (Gowers'), and also the direct cerebral tract dorsal where the Clark's columns are not present (in the sacral region in men and in the whole cord of the lower mammal). The author is of the opinion that a physiological reciprocity exists between these two tracts (direct cerebellar ventral and direct cerebellar dorsal).

M. J. KARPAS (Vienna, Austria).

APROPPOS OF THE BUNDLE OF FIBERS IN THE TEGMENTUM AND ITS PROBABLE RELATION TO THE ACT OF MASTICATION. Julius Bauer (*Anatomischer Anzeiger*, XXXIII. Bd., 1908).

Bauer describes a bundle of fibers which in sagittal and basal sections in various animals could be easily traced through the mid-brain. They run laterally and originate probably from the caudal segment of substantia nigra and enter toward the midline of velum medulare anterior. In those animals in which this bundle of fibers (it was named by the author as *fasciculus circumflexus lemnisci lateralis*) is not well defined, however, there are numerous fibers which run between the upper fillet nucleus and substantia nigra. The author believes that possibly both these bundles of fibers unite the substantia nigra with the motor nuclei of mastication.

M. J. KARPAS (Vienna, Austria).

THE PRESENT STATUS OF PSYCHOTHERAPY. A. Forel (*Journal für Psychologie und Neurologie*, Band XI., Heft 6).

The author starts by defining psychotherapy as "the sum total of those remedial agents which make direct use of the natural nerve-waves or the activities of the neurones called by me 'neurokymys,' for the purpose of obtaining curative effects. The concept of neurokym is used in the broadest sense of the word, namely, in the sense of each and every nerve activity from peripheral sensory organs to the brain. It includes the activ-