Exner on Cerebral Localisation.—At the meeting of the Academy of Sciences at Vienna, June 17, 1880, Exner gave the following as the results of his investigations on the functions of the cerebral cortex. He had limited his examination to cases of purely cortical lesions—169 in number—recorded in literature. The results, which will be published more fully at a later date, are, that in the cortex there are areas which are in relation with certain functions in a limited, and others in a more general sense.

In general it is lesions of the two central convolutions which paralyse or impair volitional movements on the opposite side. But in addition to these the greater portion of the convex surface of the hemisphere must also be reckoned in the motor zone, though of less significance.

In the motor zone there are areas corresponding to certain muscular actions which may be termed absolute, when lesion of these invariably causes affection of these movements; relative only, when this is not constant. Only the muscles of the extremities and the right side of the face have an absolute cortical area; the others, only relative cortical regions.

All the motor areas have a greater signification, and, in a certain sense, also greater extension, in the left hemisphere than in the right. They are not sharply demarcated, but cease gradually. Many muscles, those which are usually associated together, have areas in both hemispheres. Those muscles which usually act together, whatever their peripheral nervous supply, are intimately related together in the cortex.

As regards speech, the temporal convolutions are not less important than the frontal or the insula. Lesions of the temporal lobes, especially affecting the middle temporal convolution, cause the affection of speech termed "word deafness."

As to the sensory areas, it appears that as the left hemisphere is especially motor, so is the right especially sensory. The tactile areas of the extremities correspond with their motor areas. They are not separate, but the centres are conjoint sensory and motor.

The centre of vision is in the first occipital convolution, and, like the motor areas, shades gradually into the surrounding cortex. Lesions of this centre cause ocular hallucinations, or disorders of visual perception, or hemianopy. Each sensory centre seems to be in relation with both sides of the body.

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