

**Dimmer, Jr.** TWO CASES OF GUNSHOT INJURY TO THE CENTRAL VISUAL PATHWAYS. [Wiener kl. Wochenschr., 28, 519, 1915.]

In one case a quadrant hemianopia occurred, in the other absolute homonymous scotoma of congruent form in the right lower quadrant of both visual hemispheres. The second case is of interest for the theories of central macular replacement. This case favors Wildebrand's view of over-compensation of the most central portion of the field of vision in both hemispheres. In that portion of the visual center and of the visual radiations starting from there, related to the smallest pericentral visual field, there is an analogous localization of individual portions of the retina. For only a quadrant of this smallest pericentral visual field has been eliminated and this is joined to the peripherally situated portion of the whole scotoma. The center of the macula region should be localized in the anterior portion of the calcarine fissure.

**Marie, P., and Chatelin, Ch.** VISUAL DISTURBANCES RESULTING FROM LESIONS OF THE INTERCEREBRAL OPTIC PATHWAYS AND OF THE CORTICAL VISUAL SPHERE IN GUNSHOT WOUNDS OF THE HEAD. [Rev. Neuro., 1919, Nos. 23-24, pp. 882-925.]

The authors studied thirty cases of cranial injuries in which various disturbances of the visual field were found. Under ordinary conditions most lesions of intercerebral optic pathways and of the visual sphere have a vascular origin, a more or less extensive softening of cerebral material. Here the destruction of cells and fibers is massive and whole sections are annihilated. In the wounded, however, when the disruption is over and the blood reabsorbed, the lesion is very limited. It lies in healthy tissue, since the brain is usually young, the vascular system intact, and the possibility of reconstruction great. From their own observation the writers believe that the cortical center of vision is localized at the calcarine scissure and on the adjacent cortex (lower portion of the cuneus, upper part of lingual lobe). They also believe that there is a systematization of the cortical sphere such that the upper quarter of the retina on one side is projected to the upper lip of the calcarine of the other side, so that the destruction of this latter produces hemianopsia of the lower quadrant; that a restricted lesion of the cortical visual sphere on one side reveals itself by a hemianoptic scotoma in each half of the visual field on the opposite side. The systematization continues in the radial sections closest to the cortex so that a restricted radial lesion gives the same type of scotomata as restricted cortex lesions. The writers emphasize in cortical lesions, the fact that hemianoptic failings have the following characteristics: their outlines are distinct, and do not alter with time; they are entirely or very nearly congruent; they are caused by a definite destruction of a recognized portion of the cortex or of the white matter directly beneath. In regard to the projection of the macula upon the calcareous cortex, they