We must therefore look elsewhere in the carnivorous brain for the homologue of the fissure of Rolando.

Owen, from a comparative survey of the brain in a large number of gyrencephalous Mammals, was led to regard the coronal fissure in the Carnivora as corresponding with the fissure of Rolando in Man, which he also called the coronal fissure. Pansch and Meynert took a similar view of the homology of the coronal fissure, and Pansch held that the fissure of Rolando was the anterior part of the upper or first curved fissure and was the second in order of position from before backwards of the three primary fissures which occur on the cranial surface of the hemisphere of all Mammals with convoluted brains. In the Primates they were placed radially above the Sylvian fissure, but in other Mammals the first or most anterior was more vertical, whilst the second and third had a sagittal direction. Pansch's determination of the homology was based on the relative period of appearance and on the depth of the fissure in various Mammals, and guided by these considerations he regarded the ascending frontal and parietal (or the central) convolutions as having their morphological equivalents in the anterior parts of the 4th and 3rd convolutions of Leuret, *i.e.*, the sagittal and mediolateral convolutions of the Dog or the 1st and 2nd convolutions of Ferrier.

Ferrier, who was at one time disposed to agree with the anatomists who looked upon the fissure of Rolando as the homologue of the crucial fissure, now holds with those who consider it to be represented by the coronal fissure, and he supports his present opinion by the result of his experiments on the cerebral cortex in Monkeys and Carnivora. From a comparison of these results it would seem that a number of the effects produced are reconcilable with the view that parts of the brain in front of the fissure of Rolando and of the coronal fissure in these animals are physiologically homologous. Thus the area marked (12) by Ferrier, which in the Monkey includes the posterior half or two-thirds of the superior and middle frontal convolutions, and in the Dog is situated on the anterior limb of the sigmoid gyrus, when stimulated occasioned in both animals wide opening of the eyes, dilatation of the pupils, and turning of the head and eyes to opposite sides; stimulation of the area (3), which in the Monkey lies in the upper end of the ascending frontal convolution close to its sulcus, and in the Dog in the 1st external or sagittal convolution just behind the crucial sulcus, produced in both animals movements of the tail; stimulation of the area (4), situated in the Monkey in the upper end of the ascending frontal and anterior margin of the adjacent part of the ascending parietal convolution, and in the Dog in the back of the posterior limb of the sigmoid gyrus, produced corresponding movements in the fore limbs of both animals; stimulation of (5), situated in the Monkey in front of (3) where the superior frontal joins the ascending frontal, and in the Dog in the sigmoid gyrus about opposite the outer end of the crucial fissure, occasioned in both animals an extension forward of the opposite fore limb. It will also be observed that the area marked (12) in both animals was the most anterior region to respond to electrical