

on the surface of the cortex, and to its relations to the splenial fissure on the mesial aspect of the hemisphere. There can, I think, be no doubt that the anterior and upper part of the splenial fissure in the brains of the Carnivora and Pinnipedia corresponds with the fissure which is known as calloso-marginal in Man and Apes. Both the splenial and calloso-marginal fissures are separated from the corpus callosum by the callosal convolution of the limbic lobe, and each runs in this part of its course about midway between the corpus callosum and the free upper margin of the hemisphere. In the Canidæ, the Badger, Ratel, Weasel, Ferret, Elephant Seal, and Walrus the splenial fissure was continuous with the crucial fissure, but in the Cat, Tiger, Coati, and Polar Bear they were not continuous; whilst in a *Phoca vitulina* the two fissures were continuous in the one hemisphere, but not in the other. In those cases in which the fissures were not continuous, the splenial ended in or near the margin of the mesial longitudinal fissure in proximity to the crucial fissure and usually a little behind it.

In the human brain the calloso-marginal fissure turns round the genu of the corpus callosum and then runs backwards about midway between the corpus callosum and the margin of the great longitudinal fissure; when a little in front of the splenium of the corpus callosum it bends upwards to reach the margin of the hemisphere somewhat behind the fissure of Rolando. Where it makes this bend a fissure is prolonged for a variable distance backwards from it, but does not reach the collateral fissure, for it is so interrupted by convolutions in this region which are continuous with the præcuneus or quadrilateral lobule, that the callosal convolution loses immediately above the splenium its sharp line of demarcation superiorly. Both in the human brain and that of the Ape the limbic lobe, where the callosal and hippocampal convolutions approach each other, possesses a less definite differentiation peripherally than is the case both in the Carnivora and in Mammals generally, a condition which is apparently due to the much greater development of bridging convolutions at its splenial end. In the Walrus, for example, the bridging convolution in this region (Pl. IX. fig. 3) is a single narrow gyrus, whilst in the human and Ape's brain they correspond to the broad base of the præcuneus. Not unfrequently I have seen one or more short fissures arise from the calloso-marginal about opposite the genu and indent transversely the superior frontal convolution at the anterior end of the cerebrum, which was bent around each fissure like a short sigmoid gyrus. In its direction and relation to the calloso-marginal fissure any one of these fissures resembled the crucial fissure, but cannot be morphologically the same as the fissure of Rolando, which is situated much further back on the side of the hemisphere, and which has no definite relation with the calloso-marginal fissure. It is obvious that the crucial fissure is not of primary importance, as it is not always present in gyrencephalous Mammals, and in those Carnivora, such as the Dog and Cat, in which its development has been examined, it has been shown by Pansch to appear subsequently to the splenial fissure having assumed a certain depth, so that it has only a secondary value.