

case where self-abuse was habitually practised by a chronic lunatic at the advanced age of ninety.

Of late years so much has been accomplished in Italy, France, Germany and England, as well as on this side of the Atlantic, in a topographical survey of the brain and mapping out centres for the various functions of the body, it seems desirable to give a synopsis of what is known regarding a centre for the sexual function, irritation or disease of which would naturally produce modifications in the sexual appetite, and might be a cause or result of masturbation.

The theory of Gall and his followers, "that the instinct of propagation or sexual appetite has its seat in the cerebellum, and that this portion of the brain is exclusively devoted to that function," seems, in the light of our present knowledge derived from recent experimental and pathological research, to be entirely disproved. Ferrier failed to find any indications of excitement of the generative organs in monkeys or other animals, male or female, during irritation of the median or lateral lobes of the cerebellum. The foundation had been taken from Gall's theory by the experiment of Flourens on a cock, the half of whose cerebellum he had removed. The mutilated animal having been put several times with the hens, always tried to tread them but never could succeed on account of his inability to maintain his equilibrium; and it is further stated that, notwithstanding this traumatism, his testicles were enormous.

Clinical facts also go to refute Gall's theory. The case is recorded of a girl in whom the cerebellum was absent, nevertheless she suffered from nymphomania; and of another who suffered in a similar way when there was atrophy of the cerebellum. But the finishing stroke to Gall's hypothesis appears to be given by Luciani, who on the 2nd of May, 1882, removed the whole of the cerebellum of a bitch; she on the 2nd of September was in heat, and presented tumescence of the vulva, as well as a sanious discharge from the vagina, together with other signs of eroticism. A lover was obtained for her, and with much satisfaction, coitus was several times successfully accomplished. She became pregnant, and in due course brought forth four living puppies.

Having thus shown that the cerebellum is not the centre of the sexual function, as was formerly supposed, it is important to adduce such evidence

as can be obtained which will indicate its probable seat. Up to the present time the point does not appear to be settled, or its probable location established with any degree of certainty, but from data given, it would seem that the upper part of the spinal cord, the medulla and the pons, have something to do with the sexual function.

Ferrier states that "the instances in which disease of the cerebellum have coexisted with priapism, have been chiefly cases of apoplexy or hemorrhage into the middle lobe, a condition of things eminently calculated to cause irritation of the subjacent posterior surface of the medulla oblongata and pons. Whilst irritation directly applied to the median lobe of the cerebellum produced no vascular turgescence of the generative organs, it has been found by Segalas, that irritation of the posterior aspect of the medulla and pons produces this effect." Eckhardt and others have likewise shown that irritation of the pons and as high up as the crura cerebri, cause vascular turgescence of the generative organs and priapism. This effect, however, may be due to the relaxation of the local blood vessels in the sexual organs, which would be a natural sequence to certain injuries of these nerve centres.

It is held by some of the most able scientific men of the present day that the sexual desire is in close relationship with the emotions, and that the cerebral centres which contribute to the emotional state, are also, to a large extent, the centres for the sexual appetite. Thus Ferrier states, "that from certain facts of experiment, we have reason to conclude that the centres of sexual feeling are probably localizable in the regions connecting the occipital lobes with the lower and inner part of the 'temporo-sphenoidal lobe'; and he adds that, as the reproductive organs in women form such a preponderant element in their bodily constitution, they must correspondingly be more largely represented in the cerebral hemispheres, a fact which is in accordance with the greater emotional excitability in women and a relatively *larger development* of the posterior lobes of the brain."

It would also seem quite probable that the centre for the sexual appetite is in close proximity to the centre for smell. As in the lower animals the sense of smell is one of the most powerful excitants of the sexual desire, the location pointed