

I may observe, that epilepsy, that Herculean disease, of which Esquirol said : " Les symptômes de l'épilepsie sont tellement extraordinaires, tellement au dessus de toute explication physiologique ; que," &c., epilepsy is become, since the detection of the spinal system, one of the maladies of the human frame best understood ! For epilepsy is, in every case *direct* or *reflex* action, and its effects. And epilepsy, and the simple apoplexy of Abercrombie, and what may be termed simple paralysis, and mania, and dementia, may be but different phases of the same disease ! Is not this, then, a noble study ? And to know the disease is said to be 'half its cure !' It is certainly the means of learning the just and proper treatment. It is also the means of insuring our profession from empiricism.

But I now revert to the experiments with which I proposed to occupy this evening, and proceed to describe them more in detail. My audience will kindly excuse a little repetition.

*Exp. 1.* In this, my first experiment, I shall endeavor to pass this needle so as accurately to divide the cerebrum from the medulla oblongata. If I should fail in accomplishing this, one of two events will occur ; either I shall leave a portion of the cerebrum attached to the medulla oblongata, or I may injure the medulla oblongata. In the former case spontaneous movements may remain ; in the latter, which will be indicated by a laryngeal sound, respiration will become extinct.

I now pass the needle at the point at which I have spoken. You heard the sound ; the medulla oblongata is injured ; we shall have no spontaneous movements, but we shall also observe that all respiratory movements will have ceased.

But first, gentlemen, observe the momentary absence of excited reflex action when I irritate the toe. This phenomena is the effect of *shock*—of the shock of the operation. In a few minutes the frog will have recovered from this shock, and on again irritating the toe, energetic movements will be observed.

And now, on exciting the integument of the foot, the frog actually *leaps* out of the plate ! But having done so, it remains quiescent, absolutely quiescent, and will move no more ! The position assumed would be a most painful one, if sensibility remained ; and there would be an immediate voluntary movement to change it, if volition remained. But there is absolute immobility. As I have already said, the position of the animal might be drawn, and if it were preserved from all excitement absolutely, it would be found to be retained until all vitality had ceased.

(To be continued.)

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