

With everything ready to take a graphic record of the movements of the left leg, the Sherrington electrodes are connected on both sides, each with a separate inductorium, and the recording drum having been started the left sciatic is stimulated momentarily with a tetanising current of moderate strength. The leg drops into flexion because of reflex inhibition of the postural tonus. Does the leg go back to its extended position when the stimulus is removed?

A similar stimulus is applied to the right sciatic, when a reflex contraction of the left extensor muscle will occur (crossed extension reflex (see p. 218).

Finally it can be demonstrated that this reflex contraction is inhibited through stimulation of the contralateral sciatic nerve. To do this the right sciatic is stimulated, and whenever the tracing shows that the left extensor muscles are decidedly contracted, the left sciatic is simultaneously stimulated for a brief period. If the proper strength of stimulus is employed, it will be observed that the extensors relax. These observations should be repeated with stimuli of varying strengths and duration. When the stimulation of the left sciatic is discontinued while still maintaining that of the right the muscle goes back to the contracted state. Draw a diagram to show the probable arrangement of the reflex pathways in the spinal cord.

DECEREBRATE PIGEON.

Demonstration 18. While under the influence of ether the skull is exposed by a transverse incision of the skin. A piece of bone just large enough to expose the cerebrum is quickly removed by sharp scissors. By means of a glass tube connected with a suction pump*, the cerebrum is sucked up. Great care must be taken to avoid injury to the cerebellum, as there is no tentorium in the pigeon. The advantage of this method of decerebration is that the blood is sucked away, thus allowing a clear view of the field of operation. The cavity is plugged with absorbent cotton, and the skin sewn up. The actual decerebration should take but a few seconds.

*The tube should be slightly drawn out with an opening 2 or 3 mm. in diameter. This tube is connected by rubber tubing to a filter flask so that the brain tissue will not be drawn into the pump.