

Stimulation of nerve roots from the medulla led to very prolonged inhibition, followed by an accelerated after-rhythm of 7-8.

IV. Faradisation of the Heart.

As in the Terrapin, Alligator, and Fish, the result obtained depends on the strength of the current and the condition of the heart.

The sinus being in good condition, and the current sufficiently strong, it is arrested, but if the heart be much exhausted, no arrest may follow; arrest of the sinus, of course, leads to stoppage of the rest of the heart, unless, as often happens, there is escape of current.

The same arrest of auricles occurs on stimulation, unless the heart be very much exhausted.

Dilation is less prominent in the ventricle of the sea-turtle than in that of the Terrapin; but the bluish appearance accompanying it, and the light points where the electrodes are applied, are manifest

I have never obtained, in the sea-turtle, arrest of the ventricle by stimulation of this part of the heart with the interrupted current; on the contrary, stimulation of the ventricle gives rise to a more rapid pulsation; or, especially if the nutrition be imperfect, a peculiar form of contraction, which, as it does not exactly resemble that denoted by such terms as fibrillar, peristaltic, &c., I have called intervermiform, which seems preferable to peristaltic, inasmuch as the latter has acquired a very definite physiological meaning, which it is not well to extend.

With a very weak current in all but the freshest hearts, the dilation following the stimulation is much more local, and there may be no marked effects as far as rhythmic variation is concerned.

But in a heart very much exhausted it is often quite impossible to arrest the sinus or any part of the heart with the strongest current.

That the white dots seen at the points of application of the electrodes are due to marked contraction of the heart muscle, the behaviour of the Alligator's heart renders extremely probable; but that the other effects are due, not