

C. mydas gave much the most pronounced and certain results in my experiments on the marine turtles.

In one instance, with a weak current, preliminary increase in the rhythm occurred, followed by slowing and even short stops of the heart.

Prolonged alternate Stimulation of the Vagi.—The following account of an experiment on this subject furnishes the case of longest cardiac inhibition yet published :—

Exp.—*Chelonia imbricata*, 2 feet long.

12.32 p. m. 1. Stimulation of left vagus for 30 minutes, maintains constant standstill; then current withdrawn; after a latency of 14 seconds, rhythm re-established after 1-2 minutes. (First stimulation from 12.32 to 1.3 p. m.)

2. At 1.5 p. m. Stimulation of right vagus till 2.10 p. m.; after the current withdrawn, a latency of 16 seconds before rhythm began.

3. Stimulation of left vagus till 3.32 p. m.; when current shut off.

4. At 3.35 p. m. Stimulation of right vagus till 4.25 p. m.; latency 30 seconds.

5. Stimulation of left vagus, from 4.25 p. m. till 5.40 p. m., when beats began to appear.

Thus in all there was *continuous inhibition of the heart for more than six hours*; for the periods between the stimulation of the right and left vagi were only of sufficient length to ascertain that the heart would still beat, and in none of these cases did the heart begin to pulsate while the current was passing. It was, in fact, evident that the power of the vagus was not exhausted. To this remark, the right vagus at 4.26 p. m. is an exception, but in that case, the electrodes were at once, on the appearance of a beat, transferred to the opposite vagus.

It will also be noted that the periods of latency, after the stimulation ceases before a beat appears, lengthens with each stimulation.

Comparative inhibitory power of the two vagi.—The following is the statement of the results in 8 cases :—

Arrest of the heart with the induced current :

Specimen I. Left vagus, secondary coil $\frac{1}{2}$ over primary.

"	Right	"	"	$\frac{3}{4}$	"
"	II. Left	"	"	at 10 cm. from primary.	
"	Right	"	"	5	" "