tion of the anus has caused marked arrest of the heart; but in others, a preliminary slowing, followed by an accelerated rhythm, while the current is still passing.

2. In certain cases, stimulation of the liver has led to the usual cardiac arrest; but in others, acceleration has been the first result and the only one; while in still others, acceleration has followed and preceded slowing.

It is to be understood that, in all these cases, the spinal cord and medulla oblongata were intact.

The significance of such results as those cited aboved are discussed in my paper on the Alligator.*

Upon the whole, it may be said that, while in the matter of cardiac arrest by reflex agency, there is much similarity among the different genera and species of Chelonians, the *Chelonia mydas* is the most susceptible of the three species examined by me; and the Slider Terrapin, is almost if not quite equal to it in this respect, and in advance of the other marine turtles. The condition of the animal at the time of experiment is also a most important factor.

III. Stimulation of the Vagi.

The possible effects of stimulation of the vagi in the marine turtles are :---

1. Preliminary weakening of the beat, most marked in the auricles, without arrest of the heart's action or change in the rate of beat. This may occur with a very weak current; but more frequent is—

2. Arrest of the auricles; the rest of the heart continuing either with unchanged or a slowed rhythm and weakened beat. Gaskell^{\dagger} has stated in his paper on *Testudo Græco* that he had never seen any evidence that an excitation wave is able to travel from the sinus to the ventricle and cause a ventricular contraction independently of a wave of contraction over both parts of the auricle. The latter statement is at variance with my observations on the Terrapin and still more frequently on the marine turtles. Often, when both auricles proper are arrested by stimulation of

* Journal of Anat. and Phys., vol. xx.

+ Journal of Physiology, vol. iii. Nos. 5 and 6.