then excited by mustard. The splanchnics were next divided and it was found that vomiting could still be induced. The vagi were then divided on the œsophagus and it was observed that reflex vomiting was now no longer possible. This has been confirmed in several experiments.

In other similar experiments it was found impossible to induce vomiting after division of the vagi, the splanchnics alone remaining intact. We may, therefore, conclude that the vagi alone conduct from the gastric mucosa the impulses which are capable of exciting vomiting.

For the purpose of securing tracings of the vomiting movements, the operation on the stomach was performed on a cat anæsthetised with urethane. The respirations were recorded by causing the animal to breathe into a large bottle connected with a tambour. In Fig. 1 is shown the result of introducing a 5 p.c. solution of mustard into the stomach.

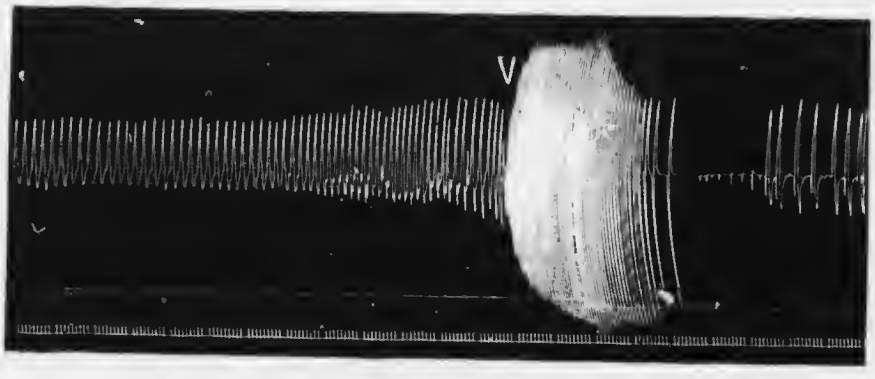

Fig. 1. Record of respirations in cat. Vomiting movements begin at *V*. Signal shows introduction and removal of mustard. Time in seconds.

The respirations are seen to become considerably quicker and deeper and vomiting occurs in 1 min. 54 secs. The vomiting movements take place with greater frequency than the preceding respirations, but become considerably slower after the removal of the mustard from the stomach. Following the vomiting there is a brief interval of rest, after which the breathing is gradually resumed.

It is known that stimulation of the trunk of the vagus may cause vomiting, but the effect of stimulating the branches to the stomach does not appear to have been investigated. On trial it was found that excitation of both the dorsal and ventral branch was effective.