

The left auricle isolated from the auricular septum and right auricle, is rarely spontaneously rhythmical.

A block may be established between any two parts of the auricles, provided one is spontaneously rhythmical, by narrowing the functional connection between them. Since all the phenomena of heart block can be obtained by narrowing the functional connection between any two spontaneously rhythmical parts of the auricles, there is no reason for assigning to the auriculo-ventricular bundle any special physiological properties other than those which result from the fact that it is a narrow bridge of tissue joining two other spontaneously rhythmical masses of heart tissue.

Cannon, of Boston, *Am. J. Phys.*, Nov., 1907, contributes an article upon "The Acid Control of the Pylorus."

After noting the views at present held concerning the function of gastric evacuation, he states the two factors in this process:

- a The Peristaltic waves.
- b The condition of the pyloric sphincter.

From X-ray observations he finds the former do not vary in strength, and as food is intermittently discharged, the control of the discharge must reside in the sphincter.

Cannon propounds a theory to explain the mode of pyloric action as follows: The pylorus is tonically closed when food is ingested and remains closed against recurring pressure. The appearance of acid at the pylorus causes the muscle to relax.

The pressing peristaltic waves now force some of the acid chyme into the duodenum. The acid in the duodenum tightens the sphincter against further exit, the same acid also stimulates the flow of alkaline pancreatic juice. As neutralization proceeds, the stimulus closing the pylorus is weakened, now the acid in the stomach is able again to relax the sphincter and thus until the stomach is emptied. He makes use of the X-ray to work out his hypothesis.

Making a mixture of mashed potato, cracker and rice, and bismuth subnitrate, and feeding to a cat in 25 cc. amounts, and examining by X-ray at $\frac{1}{2}$ hour intervals, and measuring the length of the food masses in the duodenum, he found that when given simply moistened with water, ten times as much had passed the pylorus in $\frac{1}{2}$ hour as when moistened with 1% NaHCO_3 , in one hour three times as much, and in two hours twice as much.

Proteid food was tested by comparing the rate of discharge of simple proteid food and of acid proteid made by digestion with 10% HCl. and dialysis.