The dose of digitalis necessary to produce auricular fibrillation always exceeded the dose necessary to produce A-V block, and in three of the six cases toxic symptoms appeared before or simultaneous with the onset of fibrillation. In only one of the six cases was there any marked increase in the circus movement rate until the onset of fibrillation. In four of the six cases auricular fibrillation took place only after doses much larger than that usually needed to produce digitalization in other cardiac mechanisms had been given.

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Observations on the isolated pyloric segment.

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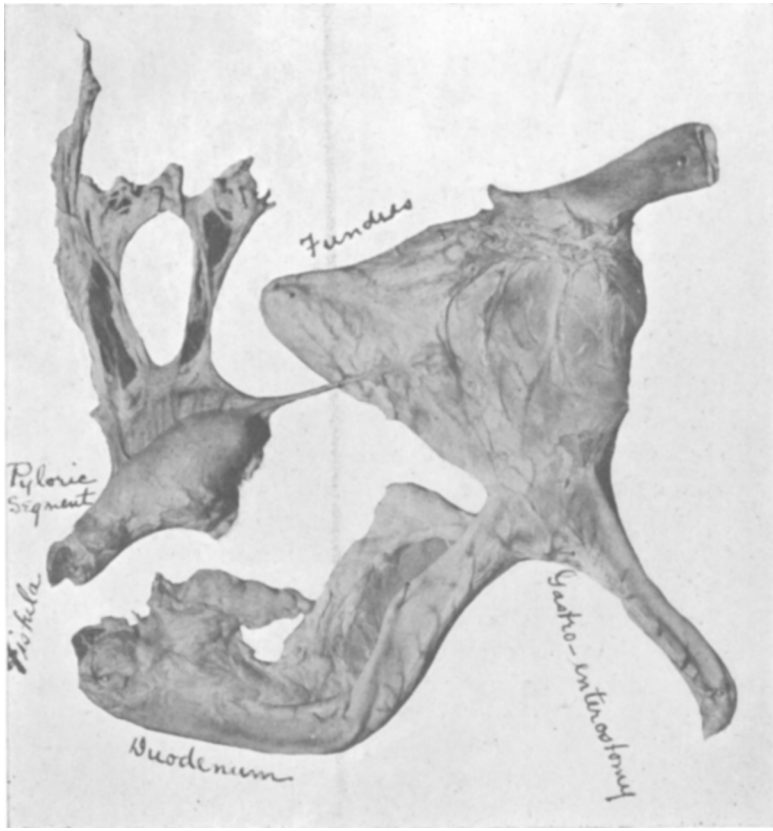
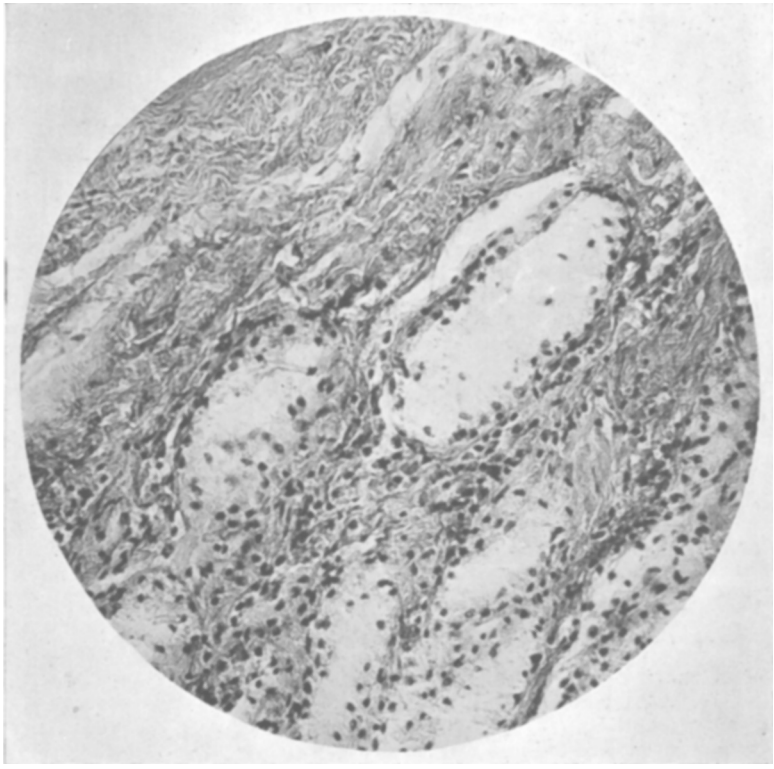
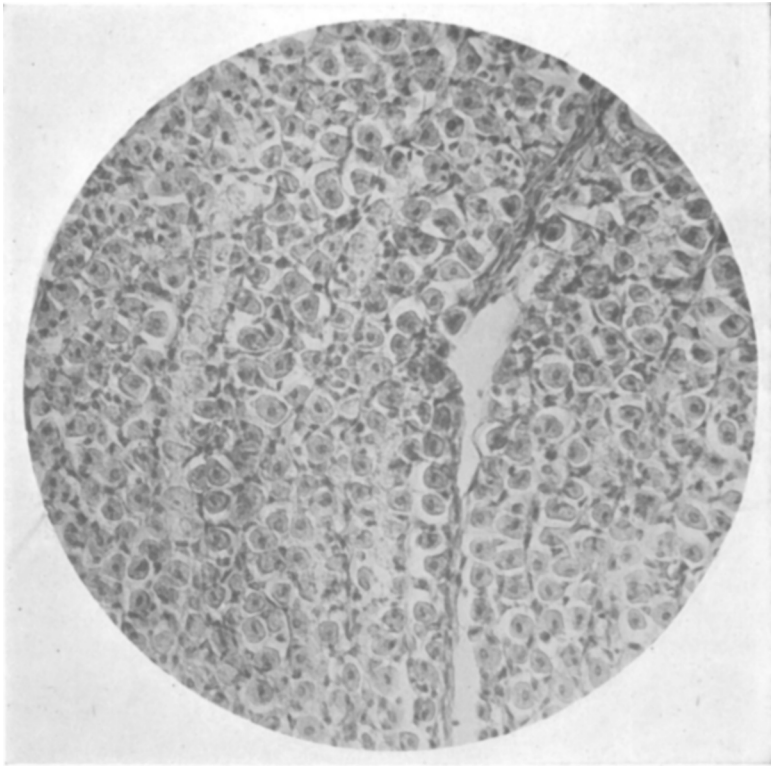
The technic of isolating the pyloric segment from the remaining portion of the stomach in the dog was as follows: Anterior gastroenterostomy was performed between the fundus and jejunum 25 cm. aboral of the pyloric sphincter. The stomach was divided through two planes: first, through the sphincter pylori and second, through the pyloro-fundic region. The pyloric end of the intermediary segment thus created was brought into the wound as a fistula, while the other three cut ends were closed. By this means a closed pyloric pouch of stomach was established, communicating only with the skin surface of the animal. By means of the gastrojejunostomy the animal was fed and kept alive. (See diagram of experiment No. 1.)

Five experiments were carried out according to this technic. Each animal lived from 10 days to 4 months, or long enough to determine (1) the acidity of the pyloric segment under the above experimental conditions, (2) the effects of acetylcholin, pilocarpin, and adrenalin respectively, upon the secretion of the pyloric


Fundus
Pylorie Segment
Duodenum



Chief cells of the vestibular portion.



Parietal cells of the juxtapyloric mucosa,

segment, (3) the motor function of the residual stomach, and (4) the histology of the fundic and pyloric mucosae.

The conclusions were as follows:

(1) The reaction of the secretion from the pyloric segment was in every instance strongly acid in terms of litmus.

(2) Acetylcholin and pilocarpin produced no appreciable increase in the amount or variation in the acidity of the pyloric secretion. Pilocarpin appeared to be followed by a more mucoid secretion. The adrenalin administration was followed by a distinct decrease in the amount of pyloric secretion.

(3) The residual stomach emptied within 2½ hours through the gastrojejunostomy, in terms of the barium meal and X-ray.

(4) Chief cells predominated in the vestibular portion, the aboral end of the body of the stomach, and parietal cells in the juxtapyloric mucosa.