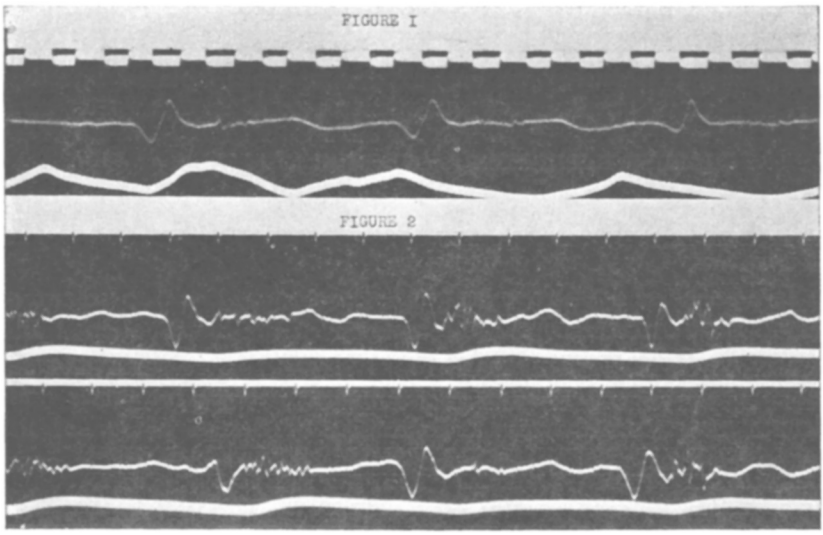

FIG. 1. Simultaneous electrogram of isolated intestinal segment and pneumogram of respiration.
FIG. 2. Simultaneous electrogram and myogram of isolated intestinal segment. Time interval—one second.

phase which shows considerable fluctuation when there is visible activity of the segment. The myograms always were simultaneous with the same phases of the electrogram. Richter[2] obtained electrogastrograms which consisted of 3 to 4 definite phases. He likewise obtained a negative and positive quick phase which precedes the contraction wave and a slow phase which coincides fairly closely with the contraction wave.

6138

Gastrectomy in the Rat.

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Removal of the stomach necessitates anastomosis of esophagus to duodenum; this is made difficult in the dog by the shortness of the abdominal part of the esophagus. In the rodent this part is much longer. It therefore occurred to one of us that such an operation

[2] Richter, Curt P., *Am. J. Physiol.*, 1924, **67**, 612.

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might be feasible in the rat, provided that some other technique than sewing might be used in making the anastomosis. We had on hand a number of small cannulae made of magnesium and intended for blood-vessel surgery. According to Lexer[1] these were introduced into surgery by Payr. The technique we have developed consists essentially of tying the cut end of the esophagus over one end of the cannula and the end of the duodenum over the other. This unsurgical method could not be expected to work in larger animals, but in the rat it gives very promising results.

We have thus been able to perform gastrectomies on 31 rats, and at present have 8 living. These have survived their operations by 8, 8, 8, 8, 21, 21, 25, 43, and 51 days respectively. Of the 23 that have died, the survival times were 1 (9), 2 (3), 3 (2), 4 (1), 5 (1), 6 (3), 7, 8, 9, 13, and 20 days respectively. In all rats now living the filling of the intestine by way of the anastomosis during the ingestion of an opaque meal has been observed by fluoroscopy. In the accompanying roentgenogram is shown the anastomosis in the rat which is now in its 43rd day; this rat has had acute esophageal obstruction 4 times, but is now able to eat anything it cares for. Four of these rats have regained their pre-operative weights. They begin promptly to eat anything offered them, but lose interest very soon. We have tried feeding by dropper, administration of cod liver oil, and frequent small feedings of varied foods. The blood has not yet been studied, pending the solution of the dietary problem; such studies should be significant in view of the anemias observed by Ivy, Morgan, and Farrell[2] in gastrectomized dogs.

6139

Natural Variability Among White Rats in Degree of Susceptibility to Infection with Eimeria miyairii.*

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Animals differ in respect to the limits to which infectious organisms can multiply in their bodies and the morbidity of the symptoms.

[1] Lexer-Bevan "General Surgery", 1908, 557.

[2] Ivy, A. C., Morgan, J. E., and Farrell, J. I., *Surg., Gyn., and Obstet.*, 1931, **53**, 1.

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