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A Right-Atrium Preparation for Studying Pace-Maker Activity and Amplitude of Contraction.

C. R. SPEALMAN. (Introduced by R. J. Main.)

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A method for perfusing the isolated right-atrium of the guinea pig heart is illustrated in the schematic diagram. The first step in making such a preparation is to insert a cannula connected to a reservoir of Locke's solution into the inferior vena cava. A second cannula is then inserted into the superior vena cava. A ligature is now tied around the right-atrium at its junction with the right ventricle. In performing this third step, I have found it convenient to pass forceps caudally and to the left between the superior vena cava and the large arteries, through the left atrial tissue near its caudal junction with the right atrium. A ligature is then drawn through and tied at the right atrio-ventricular junction. The greater part of the two ventricles and the left atrium is excised, and the preparation is dissected free from the supporting tissue.

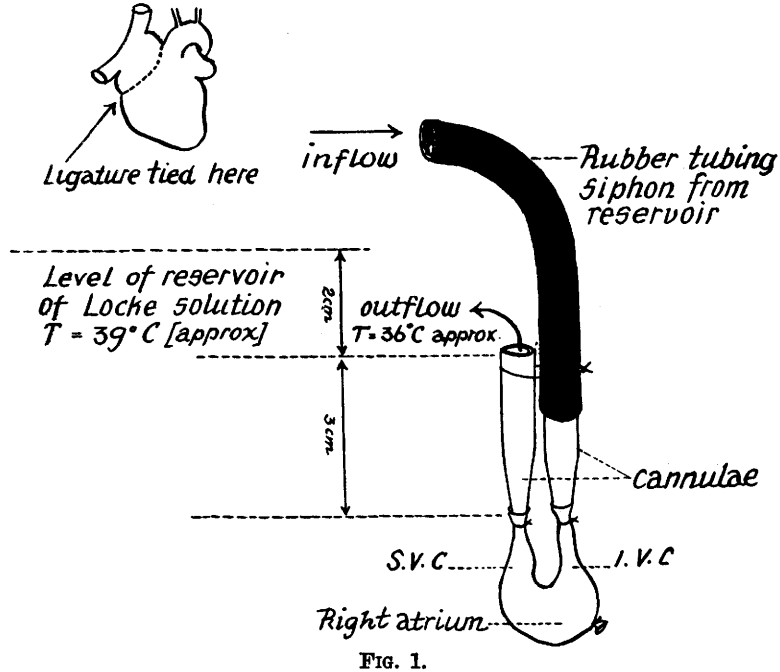

FIG. 1.

A schematic diagram of the atrium preparation. The inset in the upper left corner shows where the ligature is tied.

At this stage the preparation resembles a tube with a cannula in each end. The 2 cannulae are now loosely tied together. The preparation is clamped in a vertical position to a ring stand, and connected to a light lever by means of a thread. An end of the ligature about the atrio-ventricular junction is a convenient place to attach the thread to the atrium. In the resulting preparation, oxygenated Locke's solution at 36 to 37°C flows through one cannula and out the other. The various pressure levels are approximately those shown in the diagram; the chief aims in adjusting these levels are to have the atrium moderately distended and to have sufficient Locke's solution flowing through the preparation. (I have used about 10 cc per minute).

The preparation will continue to beat with a rather constant rate and amplitude for several hours. It responds to changes in the ionic composition of the Locke's solution and to epinephrine in the expected manner. Other substances have not been tried. The advantages of this preparation are its simplicity and durability.

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Effect of Diet and Cinchophen on Production of Experimental Gastric Ulcers in Chicks.

GARNETT CHENEY.* (Introduced by W. Dock.)

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The production of superficial gastric ulcers in young chicks by a diet deficient in greens, whole grains, and certain fats is a relatively simple procedure. The lesions which develop are never in the proventiculous or acid-secreting area of the stomach, but are always in the muscular part and are best described as gizzard erosions. A number of factors which contribute to their development, prevention, and care have been described by Dam,[1, 2] Almquist and his coworkers,[3–6]

* Supported in part by a grant from Eli Lilly and Company.

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2 Dam, H., and Schonheyder, F., *Biochem. J.*, 1936, **30**, 897.

3 Almquist, H. J., and Stokstad, E. L. R., *Nature*, 1935, **135**, 652.

4 Almquist, H. J., and Stokstad, E. L. R., *J. Nutrition*, 1937, **13**, 339.

5 Almquist, H. J., *J. Nutrition*, 1937, **14**, 241.

6 Almquist, H. J., and Mecchi, E., *J. Biol. Chem.*, 1938, **126**, 407.