

b—on the sixth day; marked cavitation.

FIG. IX. Roentgenograms of Y 19 after introduction of infected embolus into the jugular vein.

a—on the second day.

b—on the ninth day.

In five instances an abscess failed to develop. At necropsy, two of these cases presented the signs of a healing infarct with scarring and pleural adhesions on the surface of the affected lobes. In three animals, the roentgenograms showed no evidence of abscess formation, and the dogs have remained well.

Conclusions.

Thus far our experiments have led us to believe that we can produce lung abscess with a fairly high degree of success and the method may perhaps furnish further experimental evidence in favor of the embolic theory of lung abscess.

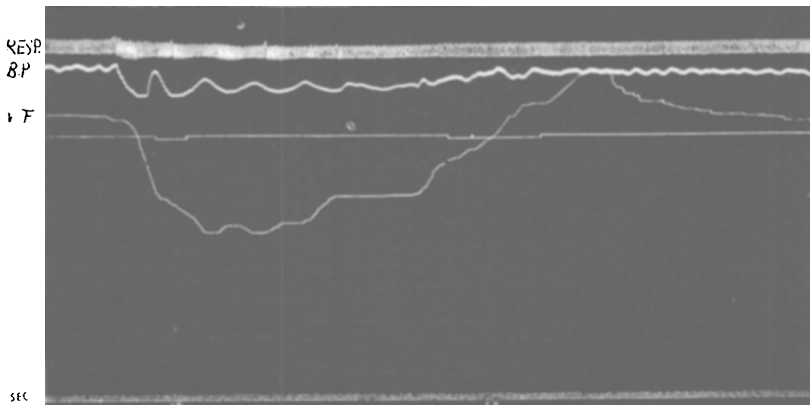
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A continuous electrical method of recording the volume-flow of blood.

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The method employed is based on the principle that the amount of heat, radiated by circulating blood led through a tube, varies



with the volume-flow. This heat is measured by means of a thermopile placed in the course of a stream of water exposed to the radiation of heat from the blood. The volume-flow (E. M. F.) is recorded potentiometrically on smoked paper with the method described by Gesell and Hertzman.¹

The accompanying figure shows the effects of hemorrhage (50 cc.) on the volume-flow of blood through the carotid artery of a dog, followed by reinjection of the blood plus 10 cc. of 6 per cent dextrose solution.

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The effect of digitalis upon the refractory period of the ventricular muscle.

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By a method similar to that used by Lewis and Drury we have tested the effect of digitalis upon the refractory period of the ventricular muscle of the dog. Lewis and Drury found that strophanthin increased the refractory period of the auricular muscle. We were somewhat surprised when we were unable to demonstrate that digitalis had a similar effect upon the refractory period of the ventricle, the more so, because digitalis has been shown by Cohn and Jameson to produce striking changes in the *T*-wave of the electrocardiogram.

The drug was given intravenously. After control tests of the refractory period were made, one and five-tenths to two cubic centimeters of the tincture diluted ten times with physiological saline solution were given. Ten to fifteen minutes later the refractory period was redetermined. A second dose was then given and this procedure was repeated until the experiment was ended by ventricular fibrillation, which usually occurred upon stimula-

¹ Gesell, Robert, and Hertzman, Alrick B., *PROC. SOC. EXP. BIOL. AND MED.*, 1925, xxii, 298.