

The per cent increase in iodine absorbed in the kidneys of adrenalectomized cats is less than the per cent increase in the total lipoids. Therefore, the extra fat contains a smaller proportion of double bonds than the normal. The kidney phosphorus decreases after removal of the adrenals, even though the total lipoids markedly increase. This may mean that there is a cellular degeneration along with the deposition of less active fat. If one calculates the amount of fatty acids derived from the phospholipoids and compares it with the non-volatile acids, in the normal about two-thirds of the fatty acids are from the phospholipoids and in the operated animals only about one-third.

The chief source of increase in the ordinary fatty acids is in the free fatty acid fraction. The neutral fats have increased too, but to a lesser extent.

The most striking fat change is in the volatile fraction. The amount of these esters of the lower fatty acids is small in normal kidneys, but is about three times as large in the operated animals.

Though the total cholesterol in the adrenalectomized animals is 78 per cent larger than in the normals, the increase in milligrams is small. Whether this increase is an ester or free cholesterol is yet to be determined.

A similar chemical study is being made of the lipoids in blood and urine.

This is a preliminary report.

¹ Hartman, F. A., MacArthur, C. G., Gunn, F. D., Hartman, W. E., and MacDonald, J. J., *Am. J. Physiol.*, 1927, lxxxi, 244.

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Simultaneous Recording of Peristalsis and Action of Pyloric Valve in Isolated Stomach of Frog.

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The method consists essentially of enclosing the excised stomach in a small volume recorder (a 2-way dog size arterial cannula serves the purpose). A sufficient length of oesophagus and intestine are removed with the stomach to permit introduction of an inflow cannula into the former and an outflow cannula into the latter in a way not to interfere with the valves at either end of the stomach. The

stomach is then passed into the "Oncometer," short segments of rubber tubing serving to make an air tight seal between the cannulae and the "Oncometer." From the side tube of the latter a rubber tube leads to a delicate tambour which records both peristaltic waves and tone changes. Perfusion of the lumen of the stomach is effected from a constant pressure tank in which the nature of the fluid can be easily altered. The optimum height of the tank is about

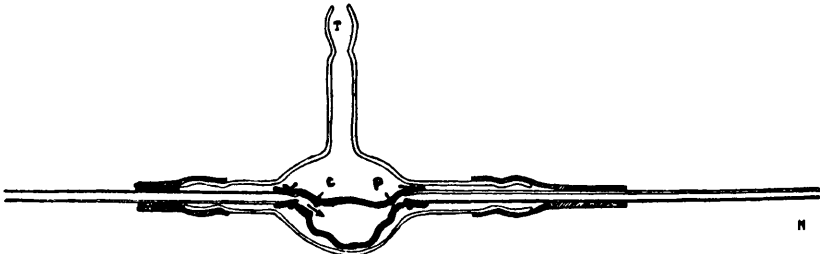


Fig. 1—Shows method of enclosing stomach in air-tight chamber. C=Cardia, P=pyloric valve. T=connection to tambour.

15 cm., the flow ceasing at a height of 8 to 9 cm. A flutter valve is placed between the pressure tank and the stomach to prevent back flow, when peristaltic waves press against a closed pylorus or during antiperistalsis. The operation of the pyloric valve is recorded by placing a drop-counter beneath the tip of the outflow cannula.

The method has the advantages of freedom from indwelling balloons or other similar interferences, and permits direct observations, especially by the aid of a reading glass, at all times.

The feasibility of such an arrangement for the demonstration of normal functions of the stomach and also of the influence of drugs is apparent. A report on such is in preparation.

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Increase of Blood Platelets in Rabbits by a Specific Bacterial Infection.

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In the course of an experiment on rabbits in which the effect of splenectomy upon blood platelets was being studied, a peculiar caseous necrosis about the site of operation was encountered in one

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