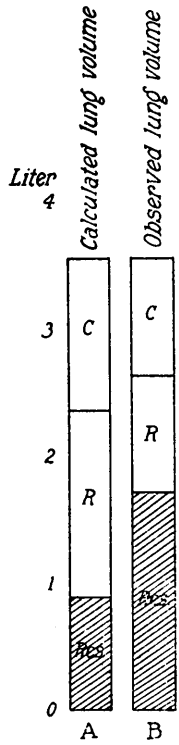

1. Diagram showing calculated and observed lung volumes in patient No. 1 may typify the changes usually found in uncomplicated emphysema of the lungs. Res = residual air. R = reserve air. C = complementary air.

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Cholesterol determination in duodenal contents.

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The duodenal contents of fasting patients were examined before and after the administration of a saturated solution of magnesium sulfate, according to the method of Lyons. The Duodenal tube was allowed to remain in the duodenum for a

period of two hours and the contents examined every ten minutes. It was found that usually there is a distinct increase in the cholesterol present in the duodenal contents after the administration of the magnesium sulfate. After an hour the cholesterol content decreases.

The amount of cholesterol in the duodenal contents varies in different patients, between 25 and 105 milligrams per 10 c. c. in the fasting state. After the administration of the magnesium sulfate, the amount of cholesterol is often tremendously increased. This increase is very sudden and would give the impression as if the gall bladder voided its concentrated bile into the duodenum.

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The organic constituents of the saliva.

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We have applied the recent method of Benedict for the determination of uric acid in blood to the filtrate obtained from saliva by a slight modification of the Folin-Wu tungistic acid precipitation method. Fifty-one samples of saliva from thirty healthy men showed maximum and minimum contents of uric acid of 2.9 and 0.6 mgs. per 100 c.c. of saliva, while fifteen samples from ten women showed similar variations from 2.3 mg. to 0.7 mg. In more than fifty per cent. of the salivas obtained from men, the uric acid content fell within a range of 1.6 to 2.1 mgs., while in the case of the women the values ranged from 1.05 to 1.15 mgs. in more than fifty per cent. of the salivas examined. Twenty-two samples collected at intervals over a period of four months from the same woman showed variations of from 1.5 mg. to 0.7 mg. Samples of saliva and blood were collected simultaneously and analyzed for uric acid.