

## EXAMINATION OF GASTRIC CONTENTS.

IN making an examination of the stomach contents we desire to obtain information of the condition and digestive power of the digestive juices, and to determine the presence of any abnormal constituents, such, for instance, as the products of fermentation. To obtain this information so as to give the most accurate results upon which to base conclusions, the sample of stomach contents should be obtained by "expression" after a test meal on a food-free stomach (as has been described by Dr. Herald).

Our examination will be Physical, Chemical and Microscopical, and should be undertaken in the order given.

In our Physical examination we note (a) The amount. After the usual test breakfast of Ewald removed after one hour's digestion, we should not find more than 40 cc. ( $1\frac{1}{4}$  oz.) Larger amounts mean usually loss of both motor and absorptive power of the gastric walls.

(b) The general characters: (1) The amount of mucus. This will be found to be increased in nearly all forms of gastric affection, but is particularly abundant in most forms of chronic gastritis. (2) The presence of food fragments. This, of course, means loss of digestive power. (3) The odor. We can detect by this means the odor of the fatty acids, and of some other fermentative products which are at times found in affections of the mucosa. (4) The color. The normal color of the gastric contents after the usual test meal is light yellow or light brownish yellow. The presence of blood can at once be detected owing to its reddish discoloration.

We next proceed to examine the contents chemically. We must first filter the contents through paper, as the tests are more readily applicable to the filtrate.

1. Test first for acidity with litmus paper. Acidity may be due to hydrochloric acid, free or combined, to acid salts or to fermentative acids (lactic, acetic, butyric, etc.)

2. If acid, we should next determine the total acidity by titrating 5 cc. of the contents with decinormal sodic hydrate solution (4 grammes Na OH to 1000 cc. water) using a 1 per