The most likely explanation seems to be that some of the organic sulphur in the gelatine is carried over and is found as sulphuric acid. It is also probable that the quantity thus appearing in the distillate will vary with the time and intensity of heating, and the concentration of the solution distilled. The results of Chemist A seem to indicate a fairly constant source of error of this nature, and experiments are now being conducted to determine the probable amount of error and its cause.

C. Mentzel, in a most interesting article, "Zur Bestimmung der Schwefligen Saure im Fleisch,"[1] states that the *apparent* amount of sulphur dioxide in chopped meat is from 0.0014 to 0.0021 %, equivalent to from 0.0054 to 0.0084 % of sodium sulphite.

The results of nine analyses were:

	50 grm. Meat gave grms. $BaSO_4$	Equivalent to Per cent. SO_2	Equivalent to Per cent. ($Na_2SO_3.7H_2O$)
Highest	0.0039	0.0021	0.0084
Lowest	0.0025	0.0014	0.0054
Average	0.0030	0.0017	0.0067

When onions were added to the chopped meat, the percentage of apparent SO_2 was largely increased, probably owing to the presence of allyl sulphide.

Taken	grms. $BaSO_4$	Equivalent to Per cent. SO_2	Equivalent to Per cent. $Na_2SO_3+7H_2O$
50 grms. Meat	0.0028	0.0015	0.0061
45 grms. Meat+5 g. Onions	0.0039	0.0021	0.0084
50 grms. Onions	0.0110	0.0060	0.0238
50 grms. Onions	0.0106	0.0058	0.0230

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Testing Contact Sulphuric Acid.—The difficulty of transferring sulphuric acid containing free sulphuric anhydrides into water for the purpose of titrating the acid is overcome in the following manner:

The acid is weighed off in a small and narrow weighing bottle, and the bottle, with the stopper not removed, is held with the left hand upside down in a porcelain dish containing enough water to cover the stopper and opening of the bottle. By means of a pair of glass forceps held in the right hand, the stopper is gradually removed under the water, and the bottle, stopper and forceps rinsed with distilled water. The titration is then carried out. The transferring of the acid takes very little time, and there is absolutely no spurting.

A simple pair of glass forceps can be made by closing two pieces of glass tubing (each about six inches long) at one end and filling them with ground sealing wax. A piece of steel wire is bent to a narrow U

[1] Zeitschrift für Untersuchung der Nahrungs- und Genussmittel, 1906, Vol. 11, page 320.

shape and the ends introduced into the glass tubes. These are then gently heated until the wax melts. The ends of the steel wire should reach down as far as possible into the glass tubes to insure strength.

GRASSELLI, N. J., Feb. 18th, 1907. IVAR HOEL.

A Rapid Method for the Estimation of Acetone.—In order to be able to estimate rapidly the acetone content of the distillate from crude wood naphtha during rectification, the author has adapted the well-known Messinger method (*Ber.*, **21**, 3368; see also Kebler, This Journal, **19**, 316 (1897),) so that the burette readings give the number of grams of acetone in 100 cc. (sometimes expressed as per cent.) directly.

Procedure.—Put 10 c.c. of 2N sodium hydroxide solution into a wide-mouth glass-stoppered bottle, then add exactly 1 c.c. of the alcohol to be examined, shaking; next add 50 c.c. of the standard iodine solution while shaking; after three minutes acidify with dilute sulphuric acid (use about 2N H_2SO_4); now add starch indicator and titrate back with standard thiosulphate solution. The number of cubic centimeters of iodine solution used by the acetone gives the number of grams of the latter in 100 c. c.

For the back titration the writer uses a burette graduated from 0 to 50 c. c. in $^1/_{10}$, beginning at the bottom; after titration, the burette reading gives grams of acetone in 100 c.c. directly, avoiding a subtraction of the reading from 50.

In accordance with the equation:

$$(CH_3)_2CO + 3I_2 + 4KOH = CHI_3 + K(C_2H_3O_2) + 3KI + 3H_2O.$$

0.01g of acetone requires 0.1312 g. of iodine. A standard iodine solution is, accordingly, prepared to contain 131.2 g. of iodine in one liter; the standard thiosulphate solution is prepared of equivalent strength.

This method is intended for spirits in which the acetone is high, but does not exceed 50 %. In cases where the acetone does not run over 25 %, a 25 c.c. burette, graduated from the bottom, should be used for the thiosulphate solution, and of course only 25 c.c. of the iodine solution are used. For solution containing 5 % or less of acetone, 10 c.c. of the sample may be taken, using the 50 c.c. burette; readings in this case are 0.1 % for each c.c. iodine used. ALBERT P. SY.

UNIVERSITY OF BUFFALO.

The test for formaldehyde in milk by Leach's modification of the hydrochloric acid and ferric chloride test.—Recently the government inspector took some samples of milk from our house and had them examined by the government pure food chemist. He reported that he found formaldehyde in the milk. We tested some of the milk from the same source (but not the same lot) and found no formaldehyde. Later he reported