

hydrate, is due to the formation of ammonium formiate. This may easily be proved by absorbing the vapor of chloral with a piece of blotting-paper saturated with ammonia; an abundant white cloud is produced. The paper is washed with distilled water, the excess of ammonia is evaporated, solution of silver nitrate is added, and the whole heated. The mixture immediately becomes cloudy, then blackens, and deposits upon the sides and bottom of the vessel a fine mirror of metallic silver.

It is, however, possible that hydrochloric acid be present; in this case silver nitrate will give the characteristic precipitate. But the following reaction may be used in confirmation: Add to the solution of chloral a solution of sodium sulphide. If the chloral was pure, the mixture turns yellow, then becomes cloudy, and gradually darker in color, changing to rose or brick red, according to the quantities of the ingredients, but always to the last named tint if heated. If the chloral was contaminated with hydrochloric acid, however, the same reagent, under the same circumstances, produces a deposit of sulphur, and a disengagement of sulphuretted hydrogen.

Chloral hydrate is volatile at ordinary temperature, like iodine and camphor. It may be considered pure if it has no acid [or, at least, only a very faintly acid] reaction upon moistened litmus paper, does not stain paper, is not affected by silver nitrate, gives off no reddish vapors with nitric acid, and yields 72.2 per cent. of chloroform when decomposed by caustic potassa.

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## TINCTURE OF CATECHU.\*

BY LOUIS GENOIS.

Some difficulty being experienced almost daily by pharmacists in preparing the above tincture so that it will not gelatinize, the appended modification of the official formula is hereby offered:

Take of Catechu free from dirt, &c., and in small pieces, 3 troyounces;

Cinnamon, in moderately coarse powder, - 2 troyounces;

Water,

Alcohol, of each, - - - - - sufficient quantity.

Digest the Catechu in one pint of water at a temperature of about 100° F., until reduced to a thin cream-like consistence; let cool, add a pint of alcohol, let stand for twelve hours, filter; then, with the filtrate, percolate the cinnamon, previously mixed with an equal bulk of clean sand, and moderately packed in a conical glass percolator, and when the menstruum has just disappeared from the

\*American Jour. Pharm.