

- (b) 1½ oz. common laundry starch.  
3 fl. oz. cold water.  
Make into a batter and pour into  
32 fl. oz. boiling water.

Mix (a) with (b), and keep in a wide-mouthed bottle.

PERFECT PAPER PASTE—FOR PAPER ONLY.

- (a) 1 oz. powdered gum tragacanth.  
8 fl. oz. boiling water.  
(b) 1 oz. pulverized gum arabic.  
½ oz. salicylic acid.  
2 fl. oz. boiling water.  
(c) 2 oz. wheat flour.  
½ oz. white dextrine.  
2 fl. oz. cold water.  
Make into a batter and pour into  
12 fl. oz. boiling water.

Mix (a) with (b), then add (c); finally add ½ oz. glycerine, to which has been added 8 drops oil of lavender. This is a good preparation, but is rather complicated, and too much work to make up.

PARCHMENT PASTE—FOR HEAVY PAPER.

- (a) 2 oz. pulverized rice.  
12 fl. oz. boiling water.  
(b) 2 oz. pulverized gum arabic.  
4 fl. oz. boiling water.  
(c) 1 oz. white sugar.  
16 grains salicylic acid.  
1 fl. oz. boiling water.

Boil (a) for about half an hour, let cool somewhat, strain, and then stir in (b) and (c). This paste is from an old English recipe, and is a nice article; but, like the preceding, it is too much trouble taken for the result obtained.

TRAGACANTH MUCILAGE—FOR PAPER.

- (a) 1 oz. pulverized tragacanth.  
4 fl. oz. glycerine.  
(b) 16 fl. oz. boiling water.

Macerate the tragacanth with the glycerine in a glass mortar, then stir the paste into the boiling water. This makes a very thick mucilage; 32 fl. oz. of boiling water gives a medium, and 64 fl. oz. a thin paste. Tragacanth paste works very smooth, but is not very adhesive.

HOUSEHOLD MUCILAGE—FOR PAPER, ETC.

- (a) 3 oz. pulverized gum arabic.  
1 oz. white sugar.  
5 fl. oz. boiling water.  
(b) 1 fl. oz. white wine vinegar.  
(or ¼ oz. acetic acid with ¾ oz. water.)

Mix (a) with (b). The acid is added to the gum in order to make it take hold of metal.

DEXTRENE MUCILAGE—FOR PAPER, ETC.

- 4 oz. yellow dextrine.  
6 fl. oz. soft or distilled water.

Dissolve cold, as heat destroys the adhesive properties of dextrine. If a more fluid gum is desired, use 8 fl. oz. of water.

DENTRO-ACACIA MUCILAGE—FOR PAPER PARCHMENT, ETC.

- (a) 4 oz. yellow dextrine.  
8 fl. oz. cold water.  
(b) 4 oz. pulverized gum arabic.  
8 fl. oz. boiling water.  
(c) 2 fl. oz. glycerine.  
4 drops oil of cinnamon.

Dissolve each separately, then mix. This is a good article, and easy to prepare. It does not keep as well, however, as the borax mucilage, which is unalterable.

ANTISEPTIC PASTE (POISON)—FOR ORGANIC SPECIMENS.

- (a) 16 oz. wheat flour.  
Beat to a batter with  
16 fl. oz. cold water,  
then pour into  
32 fl. oz. boiling water.  
(b) 2 oz. pulverized gum arabic.  
Dissolve in  
4 fl. oz. boiling water.  
(c) 2 oz. pulverized alum.  
Dissolve in  
4 fl. oz. boiling water.  
(d) 2 oz. acetate of lead.  
Dissolve in  
4 fl. oz. boiling water.  
(e) 10 grains corrosive sublimate.

Mix (a) and (b) while hot, and continue to simmer; the meanwhile stir in (c), and mix thoroughly, then add (d). Stir briskly, and empty in the dry corrosive sublimate. *This paste is very poisonous.* It is used for anatomical work, and for pasting organic tissue, labels on skeletons, etc.

GLUE PASTE—FOR CLOTH BOOKS, ETC.

- (a) 4 oz. white glue.  
8 fl. oz. cold water.

Soak glue four hours in the cold water, then dissolve in a glue pot.

- (b) 4 oz. corn starch.  
8 fl. oz. cold water.  
Mix, and pour into  
16 fl. oz. boiling water.

Mix (a) with (b), and gently heat for about ten minutes. If wanted elastic, add 4 fl. oz. glycerine.

THYMOL DEXTRENE—FOR LABELS ON GLASS.

- 8 oz. yellow dextrine.  
10 grains thymol.  
Dissolve in  
18 fl. oz. cold or lukewarm water.

Boiling water should not be used with dextrine, as it impairs its adhesiveness.—*The Western Painter.*

Syrup hydriodic acid and peroxide hydrogen are incompatible, the former being decomposed by the latter, with a formation of free iodine, which is afterwards oxidized to iodic acid.

Cassia oil adulterated with resin and petroleum has made its appearance in the market.

The Examination of Creosote Capsules.

The necessity of examining the contents of the various ready-made capsules on the market has frequently been dwelt upon, and such examination very frequently shows very wide differences between the contents of the capsules and the statements as to the contents which appear on the labels. The following method of examining capsules containing creosote, which was recently suggested by Sapin, will, therefore, prove of considerable interest:

Macerate fifty of the capsules of examination for several hours in barely sufficient cold water to cover them, and then heat carefully until the gelatine is dissolved. On cooling there will be two layers, the upper being oily and the lower gelatinous. Dissolve the oily layer in 25 c.cm. of ether; again liquefy the gelatinous mass by careful heating and allow it to cool, when the last traces of the oily creosote solution will rise to the surface, and may be removed by a second portion of ether. By mixing the two ethereal solutions, evaporating and weighing the residue, the weight of the creosote present in the capsule and of the oil will be obtained. To separate these two, shake the residue twice with 10 c.cm. of alcohol (94 per cent.), which dissolves the creosote, while the oil remains behind. After pouring off the alcohol, heat the oil until the last traces of alcohol are driven off, and weigh it. The difference between the figures thus given and the total weight of the residue after the evaporation of the ether will give the quantity of the creosote present.

This method is available for analysis of creosote solutions in oil, such as cod-liver oil, almond oil, peanut oil, and olive oil. The quantity of creosote found may occasionally be a little in excess of the actual amount present, on account of the slight solubility in alcohol of some of the oils used.—*For. and Col. Importer.*

Migranin contains a certain proportion of antipyrin, and is for that reason physically incompatible with salol. The mixture of the two deliquesces.

TO SUCCESSFULLY TREAT BLACK EYE.—There have been recommended many applications, but an exchange informs us that there is nothing to compare with the tincture of a strong infusion of capsicum mixed with an equal bulk of mucilage, and a few drops of glycerine. Paint with a camel's hair pencil and repeat the operation once or twice.

To write on glass two solutions are prepared: One a solution of 35 grammes of sodium fluoride and 7 grammes of potassium sulphate in 500 c.c. of water, and the other a solution of 14 grammes of zinc chloride in 500 c.c. of hydrochloric acid. When wanted, equal parts of the two are mixed and painted on glass by means of a camel's hair pencil.—*P.L.E.*