any dozen other articles known, with the advantage of their being always at hand; and if not, a half-pint of sweet oil, or lamp oil, or "drippings," or melted butter or lard, are good substitutes. Dr. J. Edmonds, a prominent English physician, writes as follows to the London *Times*:—"I inclose a simple, safe, and accessible prescription for the whole range of acid and corrosive poisons, which, if promptly used, will almost invariably save life. Mix two ounces of powdered chalk or magnesia, or one ounce of washing soda, with a pint of milk, and swallow at one draught; then tickle the back of the throat with a feather or finger, so as to produce vomiting. Afterward drink freely of hot milk and water, and repeat the vomiting, so as to thoroughly wash out the stomach. Any quantity of chalk or magnesia may be taken with safety, but soda in large quantities is injurious. I may add that, the narcotics being excepted, milk alone is an antidote for almost all the poisons, and especially if followed by vomiting."

To Imitate Mahogany.

Use beech, box, or any other close grained wood: plane it level, and smooth it with fine glass-paper. Then stain it by any of the following modes: 1. Rub the surface with nitrous acid, and afterwards brush on two or three coats of the following mixture: Dragon's blood, 4½ oz., soda, 1 oz., rectified spirits, 3 pints; mix and apply. When dull it may be revived by using cold drawn linseed oil as a polish.

2. Aloes, 2 parts, dragon's blood, 1 part, spirit, 20 parts; dissolve and apply. Finish with oil and wax, coloured with alkanet.

A New Form of Gunpowder.

Messrs. Hall & Wells, of Worcester, England, propose a new gunpowder, to consist of 47 parts of chlorate of potash, 38 parts of ferro-cyanid of potassium, and 5 parts of sulphur. The ingredients, after being first pulverized, are mixed into a paste with water; when dry, about 10 parts of caoutchouc are added, and the compound is complete. One of its peculiar features is that it may be so moulded that the entire charge shall constitute a solid mass, thus greatly facilitating the manufacture of cartridges.

Nutritive Fluid.

Take 1 pint of new milk, 2 pints of soft water, 2 tablespoonfuls of parched flour, 1 teaspoonful of of salt, 2 teaspoonfuls of white sugar, 1 teaspoonful salæratus, and 2 teaspoonfuls of lump magnesia. Bring the milk and water to a boil, add the flour previously wet with a part of the water, boil just 5 minutes, and pour on to the sugar and salt in an earthen vessel; stir it occasionally, and when nearly cool add the salæratus and magnesia. Take 1 tumblerful or ⅔ full every hour. This is excellent for persons suffering with weak stomachs or diarrhœa.—*Boston Cultivator.*

To Preserve Metal from Corrosion.

Dip the article in a very dilute solution of nitric acid, and afterwards immerse in linseed oil, allowing it to drain thoroughly.

Coloured Glass.

According to some, we have lost the secret of the ancient glass dyes, but this is a mistake. Gold is as willing as of old to stain glass ruby red, and so is the humbler copper, which can also tincture it green. Silver secures a yellow or an orange, and iron gives the same. Cobalt provides for blue, copper and chromium for green, manganese for purple, and uranium for a topaz-like canary yellow. Tin makes a white glass milky and opaque, such as we see in the dials of watches, and a black enamel is secured by the darker oxydes of manganese, iron, and cobalt.

Solders.

For Lead.—Melt one part of block tin, and, when in a state of fusion, add two parts of lead. Resin should be used with this solder.

For Tin.—Pewter, 4 parts; tin, 1; bismuth, 1. Melt them together and run them into slips. Resin is also used with this solder.

For Gold.—Pure gold, 12 parts; silver, 2; copper, 4.

For Brass.—Brass, 2 parts; zinc, 1.

For Iron.—Good tough brass, with a small quantity of borax.

For Pewter.—Bismuth, 2 parts; lead, 1; tin, 2.

For Copper.—Copper, 2 parts; zinc, 1.

For Silver.—Silver, 5 parts; brass, 6; zinc, 2.

Hard Solder.—Copper, 2 parts; zinc, 1.

Soft Solder.—Tin, 2 parts; lead, 1 part.

Selected Articles.

PROCEEDINGS OF THE SOCIETY OF ARTS.

CANTOR LECTURES.

"On Chemistry Applied to the Arts." By Dr. F. Crace Calvert, F.R.S., F.C.S.

LECTURE III.

Delivered on Tuesday Evening, April 14th, 1864.

Leather.—The art of the currier. Morocco, Russia, and patent leathers. The art of tawing skins. Chamois and glove skins: Parchment. *Hair*, its composition and dyeing. *Wool*, its washing, scouring, bleaching, and dyeing. *Silk*, its adulterations and conditioning.

I shall have to crave the indulgence and patience of my audience during this lecture, as it will chiefly consist of descriptions of processes for the most part well known to manufacturers and others engaged in the leather trade. Thus, the art of currying, which is applied principally to such leathers as are intended for the upper parts of shoes, for harness, &c., is carried on at the present day nearly as it was fifty years ago, and still is but little known to the public.

Currying.—The objects in view in currying leather are several: to give it elasticity—to render it nearly impermeable—to impart to it a black or other colour, and, lastly, to reduce it to a uniform thickness. These qualities are imparted by the following processes: After the leather obtained from hides or the thicker qualities of skins has been damped, it is placed on a stone surface and energetically rubbed, first with a stone, then with a special kind of knife called a slicker, and lastly with a hard brush. The leather is then ready to be stuffed or dubbed, which consists in covering it on the fleshy side with tallow, and hanging it in a moderately warm room; and as the water contained in the leather evaporates, the fatty matter pene-