

The use of the horse chestnut was commenced on a large scale in France in 1855, by M. de Callias, and is still continued. He operated, as we have seen, on more than twenty million kilogrammes annually.

Useful Receipts.

Cement.

Cement to stick india-rubber or leather to metals is made of glue and ammoniacum, melted together, and nitric acid added.—*English patent of J. Allen.*

Liniment.

A cheap and invaluable liniment for sprains or bruises where the skin is not broken. 1 pint of soft soap; 1 pint of good vinegar; 2 tablespoonsful of salt; 1 tablespoonful of saltpetre. First dissolve the salt and saltpetre in the vinegar, then heat the soap hot and add, stir lively, and it is ready for use.

Browning Iron and Steel.

The *Moniteur des Interets Materiels* publishes this receipt for giving a brown color to the surface of polished iron or steel; Mix four parts of water by weight, one part gallic acid, two parts chloride of iron, two parts chloride of antimony. The chloride of antimony (butter of antimony) should contain the least possible acid in excess. Dip a sponge in the mixture and rub the metal to be colored. By repeating the process the color can be deepened at will. Wash thoroughly with water, and when the surface is dry cover it with a light coating of boiled linseed oil.

A New Use for Petroleum.

Dr. Decasine, of Antwerp, announces that the itch may be cured instantaneously by simply applying (without rubbing) petroleum to the parts affected. The mere emanations of that oil are sufficient to disinfect the patient's clothes, and Dr. Decasine adds that all other parasites of the human body may be destroyed immediately in the same manner.—*Galignani's Messenger.*

Water-Proof glue.

Render glue perfectly soft, but not liquid, in cold water. Then dissolve it by a gentle heat in linseed oil. It dries almost immediately, and water will not affect it.—*J. L. Hersey.*

Composition for Coating Wood.

A method of coating wood with a varnish as hard as stone has been recently introduced in Germany; the ingredients are forty parts of chalk, forty of rosin, four of linseed oil, to be melted together in an iron pot. One part of native oxide of copper, and one of sulphuric acid are then to be added, after which the composition is ready for use. It is applied hot to the wood with a brush, in the same way as paint, and, as before observed, becomes exceedingly hard on drying.

To Stain Wood Black.

Take extract of logwood and put water enough with it to dissolve it, and heatboiling hot, and apply to the wood while hot some three or four times, letting each coat dry; then give it a good coat of acetate of iron, which make by putting vinegar upon iron chips. This produces a perfect jet black.

Solution of Rubber for Overshoes, etc.

A solution of caoutchouc for preparing rubber overshoes and for fastening leather soles upon rubber shoes, is prepared in the following manner:—Cut two pounds of caoutchouc into thin small slices; put them in a vessel of tinned sheet-iron, and pour over twelve to fourteen pounds of sulphide of carbon. For the promotion of solution, place the vessel in another containing water previously heated up to about 86° Fahrenheit. The solution will take place promptly; but the fluid will soon thicken and thus render the application difficult. In order to prevent this thickening, a solution of caoutchouc and rosin (colophony) in spirits of turpentine must be added to the solution of caoutchouc in sulphide of carbon and in such a quantity that the mixture obtains the consistency of a thin paste. The solution of caoutchouc and rosin in spirits of turpentine should be prepared as follows:—Cut one pound of caoutchouc into thin small slices; heat them in a suitable vessel over a moderate coal fire until the caoutchouc becomes fluid; then add one-half pound powdered rosin, and melt both materials at a moderate heat. When these materials are perfectly fluid, then gradually add three to four pounds of spirits of turpentine in small portions, and stir well. By the addition of this last solution, the rapid thickening and hardening of the compound will be prevented, and a mixture obtained fully answering the purpose of gluing together rubber surfaces, etc.—*Am. Druggist's Circular.*

Queen's Metal.

Tin 100 parts, antimony 8 parts, copper 4 parts, bismuth 1 part; melt under charcoal. Used to make teapots, and other white metal articles. It is a description of pewter.

For Making Architectural Ornaments in Relief.

For making architectural ornaments in relief, a molding composition is formed of chalk, glue, and paper paste. Even statues have been made with it, the paper aiding the cohesion of the mass.

Machinery and Manufactures.

Linoleum Manufacture.

Now that the cultivation of flax is being largely engaged in by our farmers, and linen and oil manufactures are being established, it is well to be made acquainted with any new uses to which flax products can be applied. In noticing *Linoleum* the *Mechanics' Magazine* says:—

“The manufacture of this new and interesting material, which threatens to rival the india-rubber