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JAPANNING.

The difference between japanning and ordinary varnishing is, that in the former the articles are subjected to a high degree of heat after the application of each coat of varnish. It is adapted to metal goods, wood, papier-mache, leather and other substances. It derives its name from having originally been practised by the natives of Japan, who used for the purpose a lacker or juice obtained by making incisions in the trunk of a tree growing in these islands.

This juice or lacker is exceedingly well adapted for the purpose, as it hardens very rapidly. When first collected it resembles cream, but after being exposed to the air for some hours it turns to a deep black. The Japanese add to it a fine powder composed of charred wood, then spread it evenly over the article to be japanned, and leave it in the sun to dry. Another coat is then laid on as before, and dried in the same manner, repeating the process until it has received a coating of a sufficient thickness. It soon becomes extremely hard, and is then polished with a smooth stone and water, until it is perfectly even, when it is wiped dry, and the figures for decorating are drawn thereon with a pencil dipped in varnish made of boiled oil and turpentine. When this last varnish is nearly dry, it is covered with gold leaf, or gold dust, or any metallic dust, and the whole then receives a finishing coat of varnish.

The lacquered ware of Japan and China are esteemed the best in the world. A description of the Chinese process may serve to explain the sources of its superiority.

Articles of wood are first made very dry and smooth, and then primed with a mixture of ox-gall and rotten-stone, which is rubbed smooth over the surface before the varnish is applied. The varnish is composed of 605 grains of gum-lac in 1,200 grains of water, to which are added 38 grains of oil of *camellia sasanqua*, a pig's gall, and 19 grains of rice vinegar. The ingredients are well mixed in full day-light, when the varnish gradually deepens into a brilliant black. A very thin coat of this varnish is applied with a flat hair brush, the article is left in a steamy heat, and is then rubbed down

in water with a very fine pumice. A second coat of lac varnish is next applied, and the polishing is repeated, which two operations are continued until a perfectly even and brilliant surface is attained, a finer quality of lac being used for the later coats, of which there are never less than three, nor more than eighteen. The object is then ornamented by an artist who draws the design in white lead, engraves it, and fills up the details.

The article is next painted with the camphorated lac of Konary-si, which serves as a basis for the gilding. It is completed by varnishing.

The process of japanning in England differs in several respects from the above. If a black ground is required, it is first prepared with drop ivory black mixed with dark-coloured animè varnish. A coating of this is applied to the article to be japanned, then well dried in a stove, after which it is varnished three or four times, the work being well dried after each coat.

For coloured grounds, the ordinary painter's colours ground with linseed oil or turpentine, and mixed with animè varnish, affords the means of producing a variety of effects, according to the taste or fancy of the worker. Imitations of fine grained wood, or tortoise-shell, may be produced by vermilion with a varnish of linseed oil and umber. Flake-white or white-lead, Indian-red, verdigris, vermilion, with numerous tints produced by mixtures of these colours, are suited to the japanner's purpose. All the coloured pigments used in oil or water, answer perfectly well in varnish. The colours are first reduced by the usual means of washing and levigation to the finest state possible; and the varnish being contained in a bottle, the colours are added until the requisite body is obtained, taking care to render the mixture complete by well shaking the bottle.

Copal, seed-lac, or gums animè and mastic, are the varnishes generally employed. Lac varnish is of too high a colour for delicate grounds, but is the best as respects hardness. To protect and give brilliancy to the colours, copal or animè varnish made without driers, is applied five or six times to the best work.

As japanning requires much drying between the several operations, it is very desirable to hasten the process by means of stoves heated by flues to as high a temperature as the article and varnish can bear without injury. The work also should be done in warm apartments, as cold and moisture are alike injurious; and all the articles should be warmed before applying the varnish to them. One coat of varnish, also, must be dry before another is laid on.

Japan varnishes answer much better on papier-