

UNITED STATES PATENT OFFICE.

GEORGE F. MEHLING, OF DETROIT, MICHIGAN.

IMPROVEMENT IN PROCESSES OF GRAINING WOOD.

Specification forming part of Letters Patent No. **164,858**, dated June 22, 1875; application filed March 18, 1875.

To all whom it may concern:

Be it known that I, GEORGE F. MEHLING, of Detroit, Wayne county, State of Michigan, have invented an Improved Process of Enameling Wood to imitate French-walnut veneering, &c., of which the following is a specification:

The object of this invention is to produce a firm and durable enamel for various kinds of wood, such as walnut, ash, maple, butternut, white-wood, &c., and apply the same so as to imitate French walnut and other veneerings; and the process herein described is intended for all oil-finished work, when it is desired to represent a rich veneering or imitation of wood.

In the process of enameling to imitate French walnut, first give the wood one coat of boiled linseed-oil, mixed with a little transparent liquid drier; smooth it down with fine sand-paper, thus filling the pores of the wood, and giving it a smooth surface. When dry, give it a coat of enamel, consisting of the following compound: Pure white lead; about as much of orange-crome yellow as can be taken on the point of a pallet-knife; a little Venetian red. Mix well together with boiled oil and turpentine and as much polishing-varnish as there is used of color, and thin the mixture with turpentine, if necessary. Apply one coat with a fine fitch hair-brush. The application just stated is not intended to conceal the pores or grain of the wood, but to form a transparent coating or film on the surface.

Next in order is the application of the graining-colors, prepared as follows: Four several colors, viz., raw sienna, burnt sienna, Van Dyke brown, and drop black, are ground separately in boiled oil—about the same quantity, say, one cup of each. Place a quantity of each separately on a plate of glass, add three or four drops of transparent liquid drier to each color, and use for each a sable hair-brush. First apply the raw sienna, covering the entire surface with it. Upon this apply the burnt sienna in spots, or to form rings on the surface; then cover the surface with Van Dyke brown, after which the drop-black is put on to form different figures.

These applications on the surface are then blended in the following manner: A cotton rag, having been saturated with liquid drier and dried, is crumpled and wrinkled with the hands; hold it between the thumb and fingers, and give it a twisting pressure on the surface until all colors have been well blended. This process gives at once a perfect imitation of French walnut.

Knots and eyes are imitated by using a piece of basswood bark, rounded and made smaller at one end than at the other, it being placed with a twisting pressure against the darkest parts of the surface. After leaving the surface about thirty minutes to dry the pores or grain of the wood are formed thereon by using a felt roller, over which a coarse hair cloth has been fastened. This roller is saturated with a mixture of Van Dyke brown, smoothed down on a board or piece of oil-cloth and rolled over the surface.

The over-graining is done by using a badger-hair flowing-brush, preferably a two-inch brush, dipped in turpentine and drop-black, the color being equalized by rubbing on a plate of glass; the brush is then drawn over the surface in such a manner as to give it the figures desired by the operator, and the lines are blended to an edge.

To give a still better finish and effect a few prominent lines may be drawn with a sharp-edged tool, and when dry a light shading is grained by taking Van Dyke brown and drop black, ground in pure water, applying it with a fine brush, and wiping off with a sponge.

By this process, and the use of the ingredients as stated, a firm, durable enamel is produced on the surface of ordinary hard wood; and also perfect imitations of French walnut and other fancy wood, the enamel being formed upon a well-prepared ground-work, without the use of glue and veneering, my process being intended to produce all the effect of the latter, and being considered more substantial.

I claim as my invention—

The within-described process for enameling wood, consisting essentially of coating the wood with boiled oil and a transparent drier, sand-papering the same, (which closes the

pores with fine dust,) drying the wood, and then coating it with a transparent enamel, applying the different coloring graining materials, and then applying a crumpled cloth saturated with a liquid drier, as described, over the surface, and then passing a hair-cloth roller over the same, and polishing said surface, all substantially as herein set forth.

Witness my signature hereto in the presence of two witnesses.

GEORGE F. MEHLING.

Witnesses:

A. WITZLEBEN,
EMIL LANDSBURG.