

# ALIEN PROPERTY CUSTODIAN

## METHOD FOR HOMOGENEOUSLY COMBINING BASE MATERIALS OF ALL KINDS WITH NITRO VARNISH AND COLOR FILMS

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The decorative surface of plates, slabs and bodies of natural wood, plywood, pressed fibre masses with various compositions and made according to various methods, press spahn, tarred felt, hard cardboard and similar artificial materials is formed with the use of color or varnish films in one or several operations, in one or several shades according to the decoration required, and also in profiling the otherwise plane surface, similar to leather grains and the like. These different methods are open to the objection that the color or varnish films applied according to the known methods while possessing good adhesive properties do not enter into intimate combination with the base material and, as foreign bodies on the base material, are consequently detachable under mechanical, chemical and atmospheric influences.

In the case of base materials saturated with grease, tarred or made from artificial resin the necessary preparation is a very expensive process which frequently jeopardizes their economy.

The present invention is based on the consideration that the base material and surface coating are continually subjected to different volumetric changes. For the color or varnish film to be applied an approximating substance or compensating substance has been discovered, which adapts itself to the base material in every dimensional body change. This method ensures the homogeneous combination of base material and color or varnish film.

According to the invention a shellac or gelatine solution serving as binding medium is applied on to the surface of the base material in known manner and, when this medium has dried, a color or varnish film is applied, whereupon the base material provided with these layers is finally hot pressed. The shellac or gelatine solution is applied thereby with the result that the varnish or color film enters into intimate combination with the base material so that the color or varnish film cannot become detached from the base material under mechanical, chemical or atmospheric influences. The binding layer is so thinly applied that, after liquefaction, it is completely taken up in the base material and the nitro varnish or color film so that this film is absolutely permanently united with the base material. A softening or a hardening agent may be added to

the binding layer according to the character of the base material and imparts the desired flexibility or stability to the base material. In this manner a leather-like flexibility, grooving or folding resistance or a complete surface stability may be imparted to the product. This last mentioned property is particularly important and economical for certain purposes of use for which wood glued with copal, was hitherto employed. The binding layer may also consist of a colorless or suitably colored gelatine. Moreover, the base material may be coated with the binding layer on one side or on both sides according to the purpose for which it is intended.

The following is an example of the way in which the method may be carried out:—

The base material, irrespective of its nature and composition, is first provided on one side or on both sides with the above mentioned binding layer composed of a twenty percent solution of gelatine or of a ten percent solution of shellac. The drying out of the solvent used for the binding layer is effected at a temperature of about 70 to 80° C and takes about 1 to 2 hours. This gelatine or shellac film applied with the addition of known softening or hardening agents and by a rolling, spraying, immersion or other process, represents a kind of artificial epidermis and serves at first for anchoring the protecting film to be applied on to the back and of the color film of finely pigmented nitro cellulose varnish to be applied on to the front of the base material. The front grain film may be made in any thickness between 0.1–0.5 mms and even more according to the requirements of the base material and the stressing which the finished product has to withstand.

The converting of the epidermis layer into a flux intimately connecting the base material with the color or varnish film is effected by a subsequent operation, using a predetermined pressure and a predetermined temperature according to the requirements of the base material. In the same operation the surface of the grain film can be finished in smooth or in any desired ornamental form by using smooth or correspondingly engraved pressure plates or rollers and in one or several stages.

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