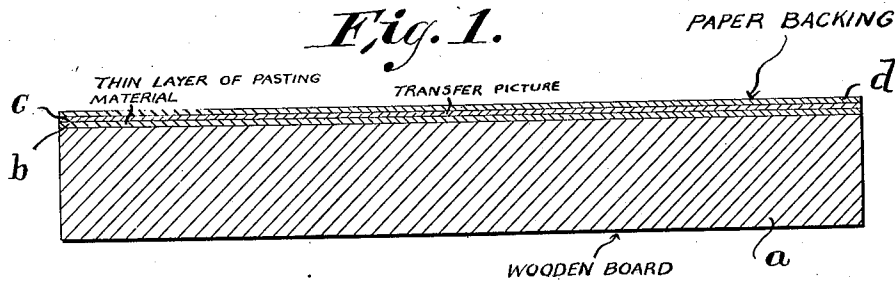


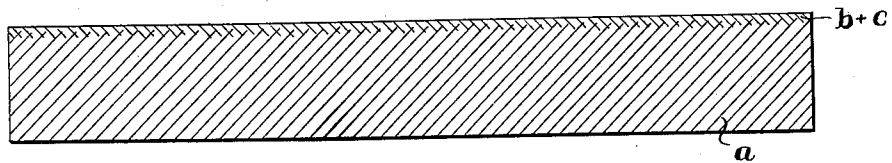
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METHOD OF PRODUCING IMITATIONS OF VALUABLE  
SORTS OF WOOD AND TARZIA STYLE COATINGS  
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*Fig. 2.*



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## UNITED STATES PATENT OFFICE

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## METHOD OF PRODUCING IMITATIONS OF VALUABLE SORTS OF WOOD AND TARSIA STYLE COATINGS

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It is universally known to produce imitations of valuable kinds of wood, and tarsia style coatings by attaching corresponding metachromatypies or transfer-prints or pictures to surfaces of wood of inferior value.

In the methods as hitherto practised for the purpose, however, it is necessary either to use a transfer-print in which the colours are covered by a coating or layer which is impervious to light, and which is to be attached to a polished or lacquered and polished surface of the wood under treatment, or otherwise to use a transfer-print or picture which is not provided with such a covering layer, and to unite the same immediately, with the aid of pressure and upon application of heat, with a surface of the wood which had previously been roughened for the purpose.

The first stated process requires much troublesome manual labour and is not applicable except in cases of small-sized work, while the other one requires highly skilled hands and constant care and as such requirements cannot be complied with in wholesale manufacture at all times, the realizable results of this process are not satisfactory. This is mainly due to the fact that the heat required to be applied in this process and amounting to 100° C. and more, tends to injure the colours which as usually are prepared with boiled linseed-oil as a base, or causes the same to merge into one another so that unpleasant spots will be found on the transferred surface which even cannot be thoroughly avoided by the interpolation of a heat-insulating sheet of felt or the like. Consequently much damaged and unsaleable work will be produced and the cost of the faultless articles produced in this way, will be greatly increased thereby, and besides that the immediate attachment of a transfer-picture having no covering layer, to the roughened wood surface is objectionable for the reason that the transferred picture is liable to distortions due to the direct contact with the structure and grain of the wood.

The object of my invention is to remedy these defects and to provide a new method which will be and constitute a marked ad-

vance in the art to which this invention pertains.

In the accompanying drawing an embodiment of the invention is illustrated.

Fig. 1 shows in cross-section the different layers at time of application; and

Fig. 2 shows the finished article.

*a* is the wooden board to be ornamented, *b* the thin layer of the pasty mass of zinc white and a lacquer-like binding agent on the wooden board and *c* the transfer picture placed with the picture side upon the said thin layer *b*, said picture being attached to a paper sheet *d*.

Figure 2 shows the ornamented wooden board after pressing and removing the paper sheet *d* of the transfer picture and it is obvious therefrom that picture layer *c* and intermediate layer *b* have become completely united and partially penetrated into the wood surface, so that the finished ornamental plate shows only one covering layer (*b* + *c*) of less thickness.

The layer *c* is the color or picture layer of the transfer picture to be transferred and consists of the usual lithographic colors, that is to say pigment colors, rubbed with oil varnish. There is provided between the paper layer *d* and the picture layer *c*, as in the case with all transfer pictures, a water-soluble adhesive layer of gum or dextrine whereby it is possible to remove the paper layer from the picture layer by simply wetting the paper layer with water after having made an adhesive connection between the surface to be ornamented and the picture layer of the transfer picture. The amber-lacquer referred to as being used in the binder *b* is an ordinary amber color varnish. Accordingly the present invention comprises three distinct steps or operations, in general, namely first smoothing the surface of the wooden article to be treated by compressing or rolling the same under heat and at a high pressure by means of any suitable pressing or rolling machine so as to impart to the surface a more or less intensive gloss, subsequently coating the smooth surface, by means of any appropriate coating machine or the like, with a thin uniform layer of a pasty

mass composed mainly of zinc-white or the like and a suitable binder such as siccative, and if required, diluted or mixed with a suitable diluting liquid such as turpentine oil or the like, and finally attaching to the smooth surface constituted by the said layer or coating, when dry on its surface, any desired transfer-picture, by means of high pressure without application of heat, so that the picture will be uniformly and intimately united with the said surface.

In carrying my invention into practice I usually apply in the last stage or operation a pressure of about 20 kg. to the square centimeter or more and I prefer to interpose between the transfer-picture and the pressing plate or surface a highly polished plate consisting of a suitable metal, alloy or any other appropriate material adapted to level any unevenness which still may exist in the surface of the wood.

According to the described new method the coloured print of the transfer-picture unites with the surface of the wood in so intimate a manner that it is scarcely possible to remove the same therefrom afterwards. A further advantage resides in the fact that, due to the cold-pressing, the colours are not injured and do not merge into one another so that the compressing operation cannot give rise to the formation of spots or stains. An economical advantage also lies in the absence of any necessity of subjecting the wood to expensive manual treatment previous to the pressing operations but the chief progress in the art attained by the new method resides in the fact that wooden articles of any desired or conventional dimensions can be operated upon by means of suitable machinery without thereby producing any defective or spoilt pieces.

For the purpose of smoothing the surface of the wood by means of a suitable paste, as herein described, I prefer to compose the latter, as regards the proportions of the single constituents thereof, by intimately mixing or grinding 25 parts by weight of finely powdered zinc-white, so-called "light-white" with 35 parts by weight of ordinary siccative, 15 parts by weight of turpentine oil and 25 parts by weight of amber lacquer. In some cases I find it advisable to use and to employ instead of ordinary siccative any other appropriate drying substance. It goes without saying that also in lieu of turpentine oil any other suitable diluting liquor such as acetone or amylic acetate may be used without changing the result aimed at.

It will be seen from the foregoing that the invention is particularly useful in what may be termed large-surface wood either because of reduction in expense or because of the improvement obtained. I have not attempted to explain all of the minute details of the method for they will be apparent to those

skilled in the art to which this invention relates.

What I claim is:

1. The method of improving the surfaces of wood of inferior value, which comprises smoothing the surface of the wood by subjecting the same to a high pressure under heat, applying a thin coating of a paste prepared from finely powdered zinc-white and a lac-varnish binding agent on the smooth surface drying said coating, and then uniting a transfer-print or picture with the said dry coating by means of a high, uniform pressure without application of heat.

2. The method of improving the surfaces of wood of inferior value, which comprises smoothing the surface of the wood by subjecting the same to a high pressure under heat, applying a thin coating of a paste prepared from finely powdered zinc-white and a lac-varnish binding agent on the smooth surface drying said coating, and then uniting a transfer-print or picture with the said dry coating by means of a pressure of at least 20 kg. per square centimeter without application of heat.

3. The method of improving the surfaces of wood of inferior value, which comprises smoothing the surface of the wood by subjecting the same to a high pressure under heat, applying a thin coating of a paste prepared from finely powdered zinc-white and a lac-varnish binding agent on the smooth surface then drying said coating, placing a transfer-print or picture on the said coating and a carefully polished rigid plate upon the said transfer-print or picture, and applying a pressure of at least 20 kg. per square centimeter on the said plate for the purpose of uniting the said print or picture with the said dry coating.

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