

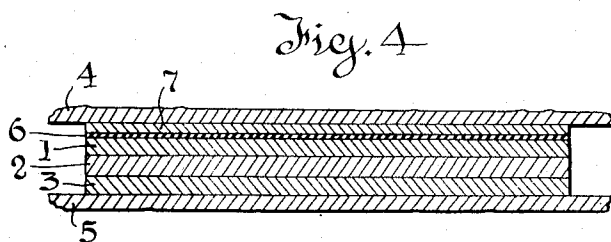
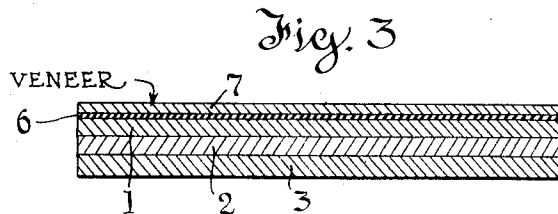
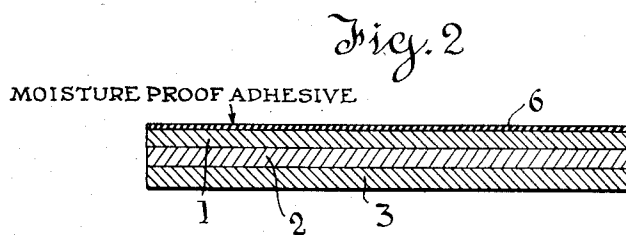
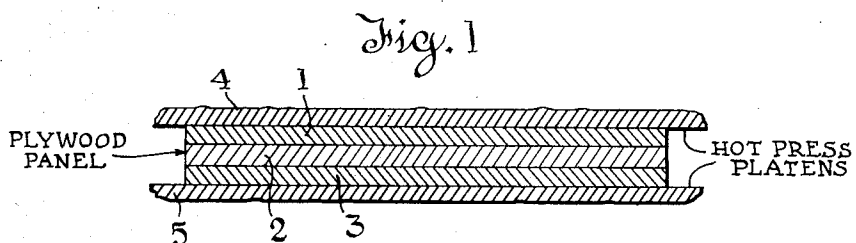
May 16, 1939.

L. OTTINGER

2,158,908

VENEERED PRODUCT

Original Filed Feb. 9, 1937



Lawrence Ottinger

Inventor

Dodge and Sons

Attorneys

UNITED STATES PATENT OFFICE

2,158,908

VENEERED PRODUCT

Lawrence Ottinger, New York, N. Y., assignor to
United States Plywood Corporation, New York,
N. Y., a corporation of New York

Original application February 9, 1937, Serial No.
124,903. Divided and this application Decem-
ber 1, 1938, Serial No. 243,471

2 Claims. (Cl. 20—89)

This invention pertains to veneering, and has for its main object the utilization of certain woods as core pieces or body elements not heretofore susceptible of being used in conjunction with a thin hardwood veneer.

Heretofore, it has been impossible to glue a thin hardwood veneer such as walnut or mahogany approximately $\frac{1}{32}$ " in thickness, or a veneer which is thinner than $\frac{1}{32}$ ", to those woods commonly termed "coniferous", such as Oregon fir, yellow pine, etc., without having the hard and soft grain of the summer and spring growth show through the imposed veneer layer when the veneer is shellacked, varnished or lacquered. The refraction which obtains under the conditions just mentioned destroys the character of the veneer surface and as a consequence such soft coniferous woods have not been employed in the production of high grade veneered products.

I have discovered that by a simple pre-processing of a core or body element of coniferous wood, the same may be utilized in conjunction with a thin veneer to produce a veneered element comparable with one wherein a core of hard wood, such as birch and poplar, or one where the grain of a soft wood employed as the core or body element was masked by a sheet of hardwood interposed between the veneer and the body. Of course, veneers say of $\frac{1}{12}$ " or thicker, have been successfully applied to pines where the veneer is thick enough to eliminate the showing of the grain lines. A veneer of such thickness is, of course, expensive as compared to one of $\frac{1}{32}$ " or thereabouts and is not commonly employed.

In the annexed drawing, which is more or less diagrammatic, I have sought to illustrate in a general way the steps employed in carrying out the process of my invention, and wherein:

Figure 1 is a sectional view of a panel comprising three plies and the platens of a hot press;

Fig. 2, a sectional view of the pre-compressed core with an adhesive applied to that surface to which the thin veneer is to be applied;

Fig. 3, a like view with the veneer imposed on the adhesive treated surface; and

Fig. 4, a sectional view similar to Fig. 1, illustrative of the final compression step to ensure adhesion of the veneer.

In producing a body or core upon and to which the thin veneer is to be applied and secured, I take a piece of coniferous wood or a plywood panel formed of such material and place the same in a hot plate press.

In the drawing, I have illustrated three adjacent plies, 1, 2 and 3, which for the sake of brevity will be hereinafter referred to as a core

or body. These plies are subjected to heavy pressure between platens 4 and 5 of the hot plate press. Such heat and pressure have the effect of bringing the hard and soft portions of the grain of the surfaces which are in direct contact with the hot platens into a smooth common plane. In other words, the aggregated tougher portions of the vascular bundles and the intersecting medullary or vascular rays, which constitute the so-called silver grain, are displaced and as above noted, are brought or carried into a common plane. At the same time, any contained moisture is eliminated.

To the flat surface thus produced, a suitable adhesive 6 is applied, said adhesive sealing the surface of the coniferous ply. Resin adhesive, casein or other glues in dry form, either dry per se or originally wet and allowed to dry may be utilized. So, too, any thermoplastic adhesive, including those produced by using rubber or latex alone or in combination with other materials or cellulose acetate, either in liquid or sheet form, may be employed.

Upon the surface thus formed and to which the adhesive has been applied, I apply the desired veneer, as 7. Such veneer will be caused to adhere by the action of pressure or the conjoint action of pressure and heat, if the adhesive is of the thermoplastic type.

By the method above set forth, one is enabled to employ coniferous wood as the body or core piece of a veneered product employing thin veneer of hardwood which will not be deformed and which will not, when it is finished as above specified, show the underlying grain of the coniferous body.

This application is filed in response to a Patent Office requirement for division between method and article claims. The method is claimed in my parent application Serial No. 124,903, filed February 9, 1937.

What I claim is:

1. As a new article of manufacture, a veneered product comprising a core of coniferous wood characterized by the presence of contrasting spring and summer growths, said core having the grain upon at least one surface thereof compressed and lying in a single plane, and a thin hardwood veneer adhesively secured to said plane surface.

2. As a new article of manufacture, a wood veneer product comprising a core of coniferous wood having the grain upon at least one surface thereof compressed into a single plane, and a veneer not exceeding $\frac{1}{32}$ inch in thickness adhesively secured to said plane surface.

LAWRENCE OTTINGER.