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IMITATION DRIFT WOOD AND PROCESS OF MANUFACTURING SAME

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Fig. 1.

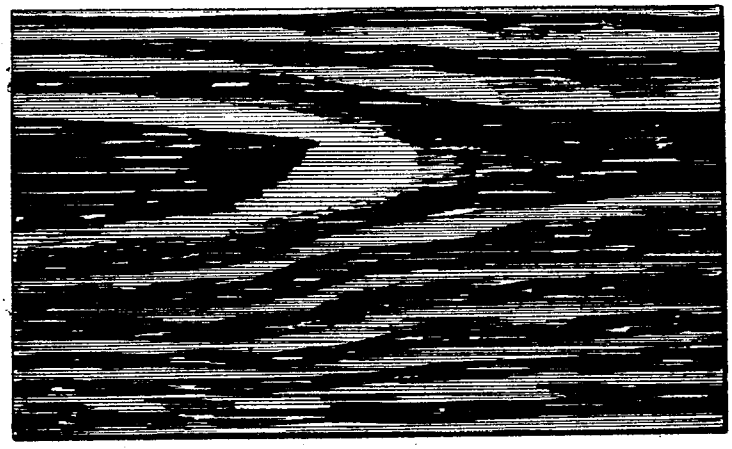




Fig. 2.

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IMITATION DRIFTWOOD AND PROCESS OF MANUFACTURING SAME.

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The invention relates to a process for the manufacture of aged wood such as drift wood and the like.

My method consists in treating fresh wood, that is to say lumber which is commercially obtainable from the usual sources of supply with a chemical reagent having the property of dissolving some of the constituents of the wood more readily than the other constituents. Since wood is composed essentially of cellulose and lignose, I prefer to employ as a reagent a solution having a solvent action on cellulose and not lignose or, vice versa, a solution having a solvent action on the lignose and not on the cellulose. The reagent is allowed to remain in the pores of the wood until the solvent has penetrated to the desired depth after which the dissolved constituents are removed by some suitable mechanical action such as wire brushing or sand blasting. The wood is then treated with another reagent for the purpose of washing out all traces of the solvent so that further chemical action on the material is prevented. This reagent is preferably a dilute solution of an acid, the acid having the effect of maintaining the pores of the wood open so that the solvent can be entirely removed by the washing. As an example, a one-half of one per cent solution of acetic acid is used.

In the preferred process of manufacture I employ a reagent capable of dissolving the cellulose and not the lignose. As an example of a solution having these properties the following reagents may be used,

1. 33% zinc chloride.

2. 33% zinc chloride with an addition of 10% hydrochloric acid.

3. Schweitzer's re-agent containing 2% copper oxide and 12–14% ammonia.

The wood which is treated in the above manner is pitted in such a way to resemble aged wood such as drift wood. In order to finish the imitation drift wood for commercial use any of the usual finishing processes may be used, that is the wood can be stained or left in the natural color, and preserved by the application of waxes, varnishes or other suitable protecting coatings. Before finishing the wood it is preferable to submit the same to a washing operation to remove all traces of the reagents employed in the first steps of the process and the wood is afterwards dried so as to be in condition for final finishing.

While I have mentioned above certain specific reagents which may be used in carrying out my invention I wish it clearly understood that other substances may be used as substitutes therefor and I do not wish to be limited to the particular substances enumerated except in the light of the claims appended hereto.

As an example of articles manufactured by my process to imitate aged wood it may be stated that they are usually in the form of panels which can be used in the manufacture of furniture and cabinet work and also as panels or wood trim in houses or commercial buildings.

In the drawings:

Figure 1 is a plan view of a panel;

Figure 2 is a cross section thereof.

The drawings illustrate a panel of wood after treatment according to my process. The surface of the panel is rough due to the removal of the cellulose constituents, leaving the lignose constituents in relief. The light areas of the drawing indicate the depressed or pitted portions of the wood where the cellulose constituents have been removed, while the darker shaded areas represent the raised portions corresponding to the parts composed chiefly of lignose that have not been much affected by the solvent.

In carrying out my process one application of the solvent is usually not enough so approximately 24 hours after the first application the dissolved cellulose is brushed out and another application of solvent is made. The brushing process is again repeated and this sequence of steps is continued until the desired depth has been reached after which the wood is washed, dried and finished in the manner above set forth.

What I claim as my invention is:

1. The method of treating wood containing cellulose and lignose constituents comprising the treatment of the surface of the same with a reagent having a more active solvent action on one of said constituents than on the other, and subsequently removing the parts of the wood affected by the solvent action.

2. The method of treating wood containing cellulose and lignose constituents which comprises the treatment of the same with a reagent having a more active solvent action on one of said constituents than on the other, removing the parts of the wood affected by the solvent action and removing the reagent

remaining in the wood to prevent further solvent action.

3. The method of treating wood which comprises the treatment of the same with a reagent having a more solvent action on cellulose than on lignose, mechanically removing the dissolved cellulose from the wood, and removing the reagent remaining in the wood to prevent further solvent action.

4. The method of treating wood which comprises the treatment of the same with a reagent having a solvent action on cellulose and not on lignose, subjecting the wood to a mechanical action for removing the dissolved cellulose therefrom and removing the solvent remaining in the wood to prevent further chemical action.

5. The method of producing an imitation of aged wood such as drift wood and the like which consists in treating wood containing cellulose and lignose constituents with a reagent having a solvent action on one of said constituents and not on the other, mechanically removing the part of the wood affected by the reagent, washing and drying the wood, and applying a preservative coating thereto.

6. An imitation of an aged wood such as drift wood and the like comprising a commercial wood object formed to the desired general configuration, the surface of said wooden object being pitted at places corresponding to the location of the cellulose constituents of the wood.

7. As a product of manufacture, wood having the surface thereof pitted at places corresponding to the portions which are composed chiefly of cellulose and having the surface raised above said pitted portions at places corresponding to the portions composed chiefly of lignose.

In testimony whereof I affix my signature.

CARL E. SCHMIDT.