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METHOD OF MAKING PLYWOOD JOINTS AND REPAIRS

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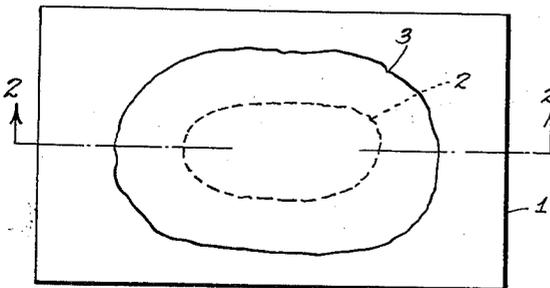
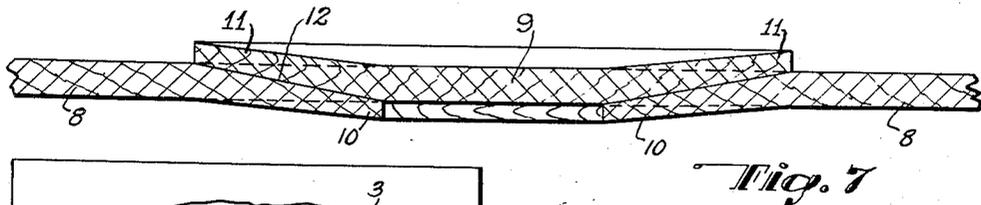
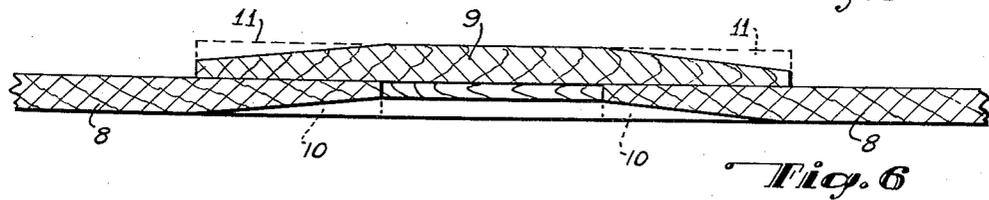
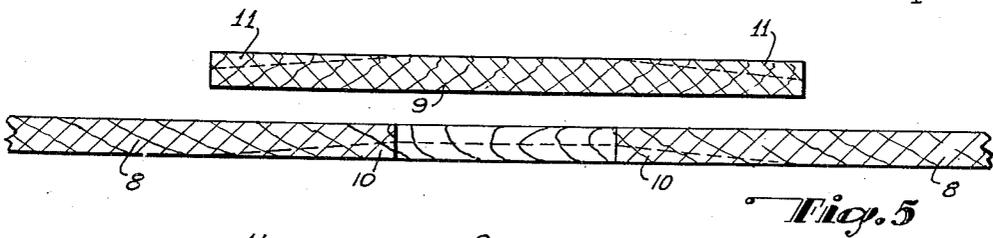
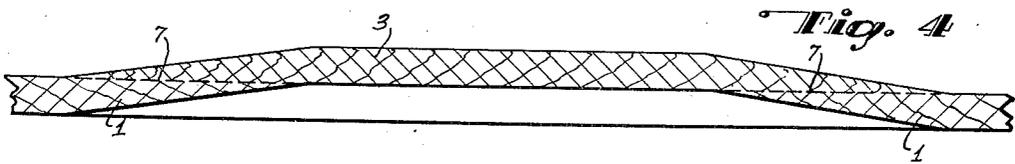
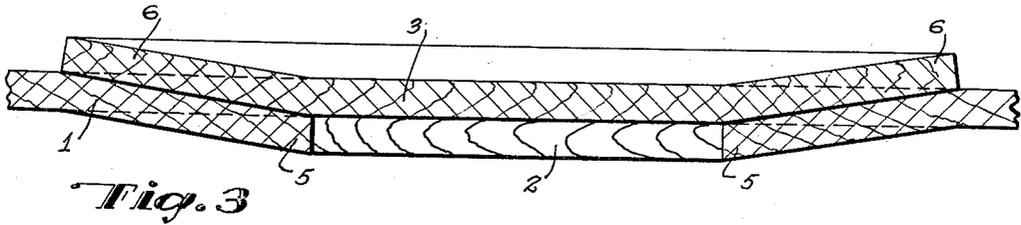
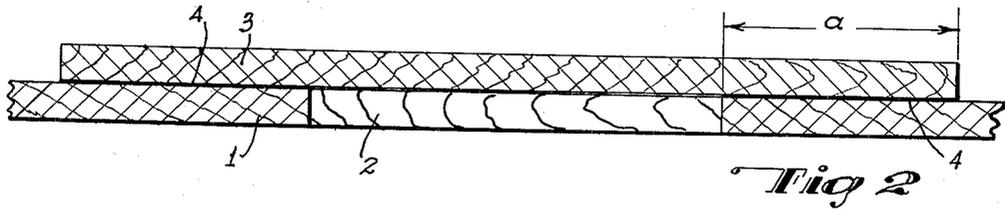


Fig. 1

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METHOD OF MAKING PLYWOOD JOINTS AND REPAIRS

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4 Claims. (Cl. 144—309)

This invention relates to a method of perfecting veneers by removing imperfect portions and fitting new pieces of veneer thereto, or in patching holes in veneers.

The main object of my invention is to have a new successful method of making the joint between the veneer to be perfected or patched and the veneer piece by which the perfection is accomplished.

Other objects and various advantages inherent in the features and steps of my invention will appear more fully hereinafter, while reference will be had to the accompanying drawing in which:

Fig. 1 is a top or plan view of a veneer sheet which has a defect in the form of a hole, over which another veneer sheet of more limited dimensions was laid and glued to the first veneer sheet.

Fig. 2 is an enlarged section of Fig. 1 on line 2—2.

Fig. 3 illustrates by a similar enlarged section the two veneer sheets during one phase of the perfection process.

Fig. 4 is a section of the completely perfected veneer.

The modified method of practicing my invention is shown in Figs. 5 to 7 and thus,

Fig. 5 shows an enlarged section of two parts of veneer sheets to be joined and another veneer sheet to be used in forming the joint.

Fig. 6 is another section showing the veneer sheets during one phase of formation of the joint and

Fig. 7 is likewise a section illustrating the joined veneer sheets.

Throughout the views the same reference numbers indicate the same alike parts.

Veneers are nearly always found to be defective or injured by the presence of loose knots, holes or otherwise imperfect portions, which it is customary to remove and substitute by new pieces. Much labor is required to cut and fit these pieces but, notwithstanding the care used, it is almost impossible to make perfectly close and strong joints between the veneer to be patched and the substituting piece of veneer.

It is of course already known in the art to cut out said imperfect portions with suitable tools and to substitute the portions cut out with new pieces of wood or veneer. By this known method the imperfect portions, however, are cut away in such manner that the sides of the hole in the veneer become situated at right angles to the surfaces of the veneer. A plug applied in such a hole,

will never be securely fastened so that such a plug tends to fall out when the material dries.

It is further known in the art to provide joints by first bevelling the edges of the veneer pieces to be joined and thereafter gluing these bevelled surfaces. Said method is however expensive and difficult to execute, and has consequently not been used on a wide scale. The pieces to be joined together are usually only 1 to 2 millimeters thick and very often corrugated at the edges, so that the bevelling to a predetermined angle causes many difficulties.

According to the present invention, the patching and the perfecting may be carried out in the following way.

A piece of veneer is put over the hole or the imperfect portion in the veneer sheet to be perfected, so as to overlap the border of the portion in question with a suitable length for instance with a length corresponding to about 30 or 60 times the thickness of the veneer.

In Fig. 1 such a veneer sheet 1 is shown in which a hole 2 appears. Over the hole 2 is applied a patching veneer piece 3 which overlaps the borders of the hole with a certain length *a*. 4 designates a film of glue between the veneers. In this position both pieces of veneer are then glued and pressed together for instance by means of a usual plywood press. The plywood press is however not adapted to press the veneer sheets into each other, it only holds them pressed together until the glue has dried.

After the gluing process the projecting parts of the piece 3 and the border parts around the hole 2 in the veneers are removed by suitable cutting or grinding tools. This may readily be performed by applying pressure onto the patching piece 3, just over the hole 2, so that the patching piece 3 is pressed down into the level of the veneer piece 1. By this means the overlapping parts indicated by 5—5 in Fig. 3 will be bent down out of the level of the veneer sheet 1 and become accessible and therefore easy to remove by a cutting or grinding tool, the overlapping parts 6—6 remaining above the level of sheet 1 so as to be similarly accessible for removal. The thickness of the joint becomes through this removal exactly the same as that of the veneer intended to be perfected. Owing to the nature of said overlapping the veneer pieces joined at 7—7 do not lie quite on the same level as may be seen in Fig. 4. But due to the fact that the length of the joint is great in comparison to the thickness of the veneer, and that the veneer is highly

pliable, said displacing of the levels can scarcely be observed.

The method as already described involves the use of a patch piece upon an imperfect veneer without previous preparation, but the invention may also be modified, as shown in Figs. 5, 6 and 7, in that the edges 10, 10, 11, 11, of the veneer sheets 8 and 9 intended to be joined are first prepared by being slightly bevelled, before they are applied over each other and glued together. This beveling, which may be performed either on those sides of the edges which are adjacent in the finished joint, or on those sides of the veneer pieces which are situated outwardly of the joint, or on the first mentioned sides as well as on the latter, is adapted to facilitate the subsequent trimming of the joint, which is carried out as a final step when the edges are glued together. Fig. 7 shows at 12, 12 how the glued surfaces are finally disposed. This modified method is especially suitable when thick veneer sheets are to be joined.

Having now fully described my invention, I claim:

1. In the art of perfecting veneers by patching imperfect portions or holes with new pieces of veneer, the method of producing a satisfactory joint between the veneer to be perfected and the new piece to be patched thereon, which consists in applying said new piece of veneer to the imperfect portion of the veneer to be perfected so that said new piece overlaps the borders of the imperfect portion to a predetermined great length, gluing the overlapping portions of the two pieces of veneer together, maintaining said overlapping portions in contact until said two pieces of veneer are effectively joined, pressing the new piece of veneer into the hole in the veneer to be perfected and thereafter removing and trimming the projecting portions of the edges of the new piece of applied veneer upon one side of the assemblage and upon the other side of the same removing and trimming the projecting edge portion surrounding the imperfect portion of the veneer to be perfected so as to form a substantially evenly surfaced joint.

2. In the art of perfecting veneers by patching imperfect portions or holes with new pieces of veneer, the method of producing a satisfactory

joint between the veneer to be perfected and the new piece to be patched thereon, which consists in slightly bevelling the portions of the veneer edges initially upon at least one side of both veneer pieces, applying said new piece of veneer to the imperfect portion of the veneer to be perfected so that said new piece overlaps the borders of the imperfect portion to a predetermined great length, gluing the overlapping portions of the two pieces of veneer together, maintaining said overlapping portions in contact until said two pieces of veneer are effectively joined, pressing the new piece of veneer into the hole in the veneer to be perfected and thereafter removing and finally trimming the projecting portions of the edges of the new piece of applied veneer upon one side of the assemblage and upon the other side of the same removing and trimming the projecting edge portion surrounding the imperfect portion of the veneer to be perfected so as to form a substantially evenly surfaced joint.

3. In the art of perfecting veneers by patching imperfect portions or holes in said veneers with new pieces of veneer, the method of producing a satisfactory joint between the veneer to be perfected and the new piece of veneer to be patched thereon, which consists in applying said new piece of veneer to the imperfect portion of the veneer to be perfected so as to overlap the borders of said imperfect portion to a predetermined great length, while interposing glue between the mutually overlapping portions of the veneers and pressing together said overlapping portions of the veneers with the interposed glue and thereafter removing the projecting portions of the new piece of applied veneer upon one side of the assemblage and also removing the projecting edge portions surrounding the imperfect portion of the veneer to be perfected upon the other side of said assemblage, so as to produce a substantially uniform and evenly surfaced joint.

4. The method according to claim 3, which in addition consists in initially slightly bevelling those edge portions of the new piece of veneer which are intended to be exposed outwardly in the finished joint prior to the application of the glue and pressing the parts together.

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