(No Model.)

F. KUKKUCK & H. ARND.

PROCESS OF MAKING TRUNK COVERS.

No. 262,956. Patented Aug. 22, 1882.

Fig. 1.

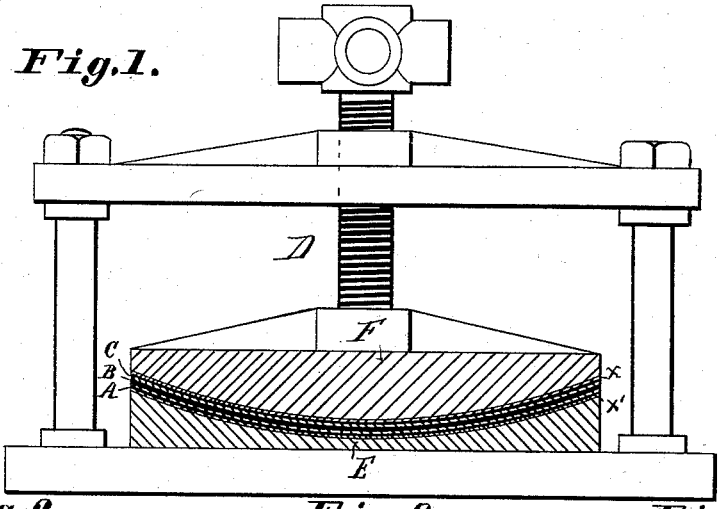


Fig. 2.

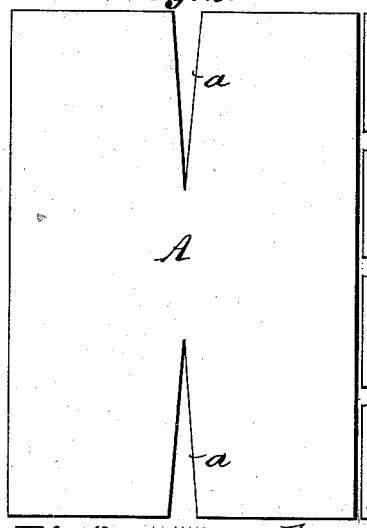


Fig. 3.

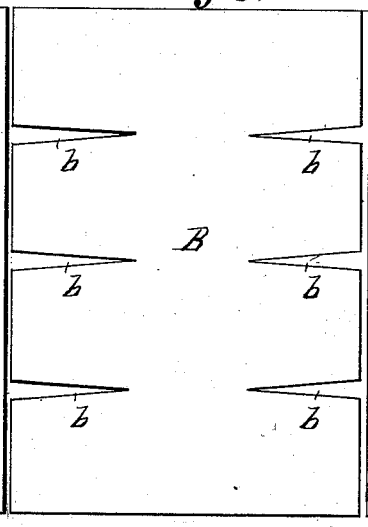


Fig. 4.

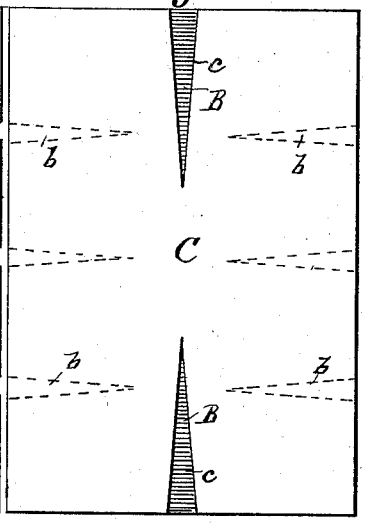


Fig. 5.

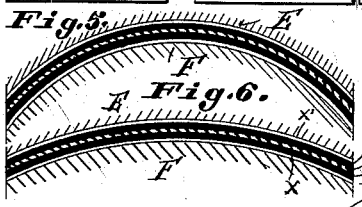
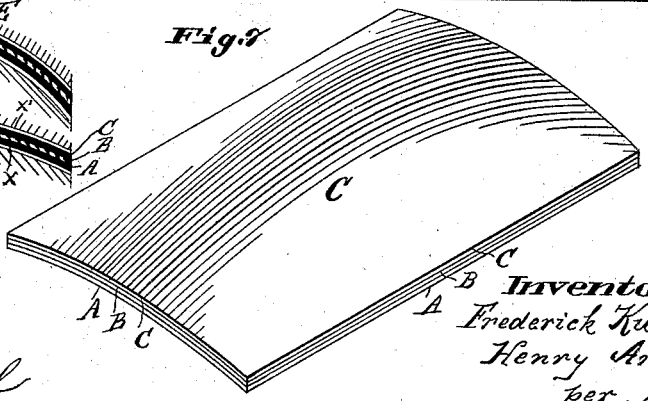


Fig. 6.

Fig. 7.



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UNITED STATES PATENT OFFICE.

FREDERICK KUKKUCK AND HENRY ARND, OF ST. LOUIS, MISSOURI.

PROCESS OF MAKING TRUNK-COVERS.

SPECIFICATION forming part of Letters Patent No. 262,956, dated August 22, 1882.

Application filed February 28, 1882. (No model.)

To all whom it may concern:

Be it known that we, FREDERICK KUKKUCK and HENRY ARND, each a citizen of the United States, and each residing in St. Louis, and State of Missouri, have invented a new and useful Mode of Making Trunk-Covers, &c., of which the following is a specification.

Ordinarily the top, lid, or cover of trunks and analogous articles is made of two or more "barrel-staves," and these are jointed together by the operator and at the same time made to assume and retain by extra fastenings the barrel-stave or ordinary trunk-cover shape.

Our chief object is to make a trunk-cover, &c., consisting of veneering (thin sheets of wood) and having the ordinary barrel-stave shape; and our invention consists in the mode of making trunk-covers of veneering to have the barrel-stave shape—that is to say, having the greatest arc or swell in cross-section when taken through the center of the cover, while the cross-sections either side of the center are arcs of diminished height, so that the extreme ends of the cover have the like smaller arc or curvature, and the center portion or swell is the largest curvature. We attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 represents the press which we employ to shape the veneer into the required trunk-cover shape, the die and former, and between them the layers of wood and cloth, being shown in longitudinal section. Figs. 2 and 3 are respective plan views of the bottom and center layers of veneer. Fig. 4 is a plan view of the top veneer, which is an exact counterpart to the bottom layer. The dotted lines in said figure represent the V-cuts of the center layer when placed between the top and bottom layers or under the top layer. Fig. 5 is a central cross-section of the swell in the trunk-cover; also, said figure represents the same swell or curvature of the die and former, the two latter being drawn in inverted position. Fig. 6 is the end view, showing the lesser arc of the trunk-cover and same shape belonging to the ends of the die and former, the latter represented inverted. Fig. 7 is a perspective view of the complete trunk top or cover as made by our mode of manufacture.

Similar letters refer to similar parts throughout the several views.

We preferably employ three layers or sheets of thin wood, (veneering,) A B C, to constitute the trunk-top proper.

A represents the bottom veneer. B is the center layer, and C the top layer or veneer. Each layer is of the proper length and width or dimensions to suit the entire size of the trunk-top to be made. The top and bottom layers, A and C, are exact counterparts of each other, the grain or fibers of the veneering running longitudinally, and at *a c* each of said layers has V-shaped cuts, as shown in Figs. 2 and 4. The center layer, B, is selected to have its grain or fibers in a transverse direction, and the V-cuts *b* are made opposite to each other, as shown in Fig. 3. The purpose of removing so much of the material as is embraced in the V-shaped cuts from each layer being to enable it when put into the press to assume the proper trunk-cover shape, and as will hereinafter appear. The said three layers are next placed on top of each other—that is to say, the center layer is first dipped entirely in glue, then placed between the remaining layers, the arrangement being such that the top and bottom layers have their V-cuts in the like direction, while the V-cuts in the center layer are in a transverse direction. The parts are now ready for the press.

D represents the press. As shown in Fig. 1, it is an ordinary screw-press; but we lay stress upon giving the die and former each the counterpart shape, as follows:

E represents the die, and F represents the former. The latter forms part of the lower end of the screw and moves with the same, while the die remains stationary. The die is shaped concave, and the former is shaped convex—that is to say, the curvature of these parts taken in longitudinal section is as shown in Fig. 1, taken in cross-section through the center or swell is as shown in Fig. 5, while the ends have the smaller arc shown in Fig. 6. Hence the shape of the die and former can be stated to be a swell or greater arc in the middle, which gradually diminishes to the smaller arc at the ends, forming an exact counterpart of what is known to trunk-makers as the "barrel-

stave" shape. It is between the die and former of the press that the three veneers previously joined with glue are placed, to be made to assume the corresponding shape of said press parts. At the same time that the veneers are placed between the press parts a top and bottom layer of cloth, *x x'*, saturated with paraffine, oil, or lubricant, is interposed between the veneers and the die and former. (See Figs. 1, 5, and 6.) The operation of the screw forces the former to descend and act by pressure upon the intervening layers. When so subject to pressure the material constituting the veneers is caused to approach and fill up the V-spaces, which action permits at the same time the layers (veneers) to assume and retain the swell in the middle with lesser arc shape at the ends. The cloth facilitates the veneer to move into and become in shape like the press parts E F'; also, the saturated cloth prevents adhesion of the layers to the said press parts. Two or more sets (each set consisting of the three layers of veneer) with interposed cloth layers can thus be put in and acted upon by the press at one time. By our mode, therefore, trunk covers or tops can be made to consist virtually of an entire sheet of wood, and in the use of veneering for said purpose a more durable shape can be given to the cover, and specially is the manufacturing of said class of covers greatly facilitated.

What we claim is—

The improvement in the art of manufacturing trunk-covers, consisting in providing veneers A B C each with the V-cuts *a b c*, placing said veneers on top of each other, so that the grain or fiber of the center veneer shall be transversely to the under and top veneer, joining said layers with adhesive material, and finally subjecting them while the glue is still warm to the action of a die and former each having as counterpart shape the greatest arc or swell in cross-section through the center and arcs of diminished height from said center to the extreme ends, by means whereof the said veneers are formed, shaped, and united to one another, as and for the purposes set forth.

FREDERICK KUKKUCK.
HENRY ARND.

Witnesses:
WILLIAM W. HERTHEL,
CHARLES HERTHEL.