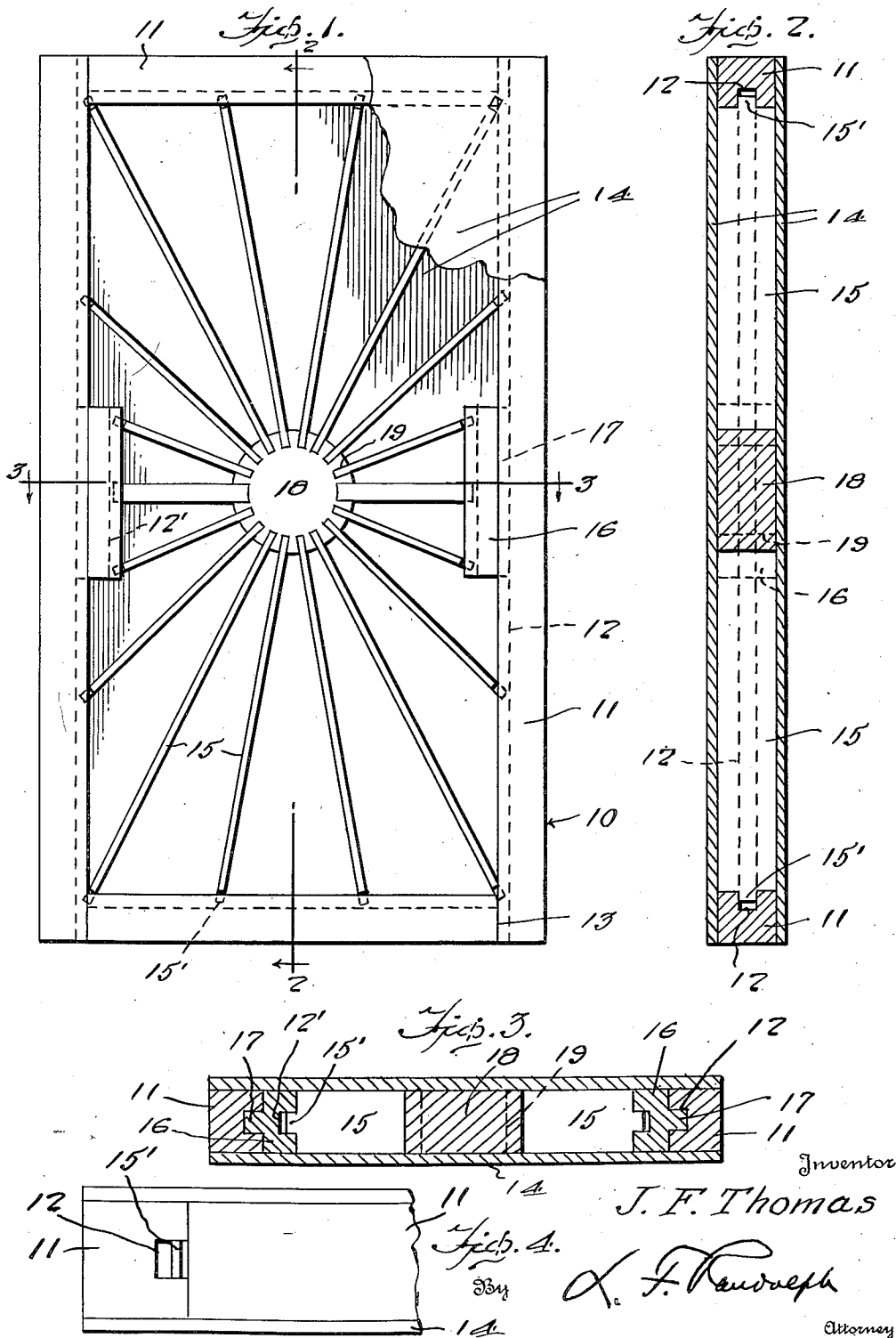


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HOLLOW CORE PANEL

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HOLLOW CORE PANEL

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4 Claims. (Cl. 20—35)

This invention relates to a hollow core panel for use as a door, partition or otherwise.

The invention aims to provide a novel construction wherein the strength is equally distributed on both sides and wherein the strips employed do not require slotting, notching or the equivalent weakening thereof, a construction which is braced in all directions, one in which ventilation is effected in a novel manner, and a construction which is generally strengthened and has greater resistance to warping.

Various additional objects and advantages will become apparent from a consideration of the description following taken in connection with accompanying drawing illustrating an operative embodiment.

In said drawing:

Figure 1 is an elevation of a panel constructed in accordance with the invention, with the ply at one side thereof removed to disclose interior details;

Figure 2 is a vertical sectional view through the panel taken on the plane of line 2—2 of Figure 1;

Figure 3 is a horizontal sectional view taken through the panel on the plane of line 3—3 of Figure 1, and

Figure 4 is a fragmentary top edge view of the panel.

Referring specifically to the drawing wherein like reference characters designate like or similar parts, a panel is constructed with a frame 10 of any suitable size and consists of four stiles or bars 11, usually of wood. Along one surface, the stiles are grooved throughout as at 12. The ends of two of the stiles as at 13 abut the grooved surfaces of the adjacent stiles and are glued thereto or otherwise fastened. As a result, the grooves 12 form a continuous groove around the inner wall or surface of the frame 10 and the interior of such frame has communication with the atmosphere through the open portions of grooves 12 opposite the ends 13, thereby forming vents.

Against the outer surfaces of the frame, plies or walls of wood or the equivalent 14 are glued or otherwise secured.

Within the frame 10, various wooden strips or the equivalent 15 are disposed so that tenons or projections 15' at their outer ends, will extend into the grooves 12. Said tenons are of less depth than the grooves, so that the tenons will not extend completely across the grooves and the grooves as a result will act as vents or means of communication with the atmosphere. The

two shortest strips 15 which are disposed transversely of the frame 10 are substantially thicker than the remaining strips 15 as seen in Figure 1, and thereby strengthened to resist and prevent sagging of the stiles or bars 11 while being manufactured.

To provide extended surfaces to accommodate latches and the like, supplemental blocks of wood are provided at 16 which have tongues 17 occupying the adjacent portions of grooves 12, being glued or otherwise fastened therein. Along the inner faces, blocks 16 have longitudinal grooves 12' corresponding to those at 12, into which the tenons 15' of adjacent strips 15 extend, being of less depth than the grooves 12' so as not to obstruct ventilation or communication with the atmosphere.

At the center, a hub or the equivalent of wood is provided at 18 and it has marginal slots 19 in which the inner ends of the strips 15 are disposed and held to reinforce the frame. It is clear, that if desired, the inner ends of strips 15 may be glued in the slots 19 and that the tenons 15' may be glued in the grooves 12 and 12'.

Attention is called to the fact that while the strips 15 are shown as radial and equidistant, they may be otherwise arranged and at certain locations may be closer together than at others, or any other desired variations may be resorted to.

After the parts are assembled as described, plies 14 are glued to the contacting surfaces of the stiles 11 and blocks 16.

In the aforesaid condition, the panel is cured during which there is effective ventilation and communication of all of the interior parts of the core with the atmosphere, through the grooves 12 and 12', since the tenons 15' do not completely fill the grooves and since the grooves opposite the ends 13 are open to the atmosphere. However, after curing such portions of the grooves opposite the ends 13, may be plugged or otherwise sealed.

Various changes may be resorted to provided they fall within the spirit and scope of the invention.

I claim as my invention:

1. A panel of the class described having a frame, said frame having grooves in the inner walls thereof, strips of the same thickness as said frame entered in said grooves, a hub engaged by the inner ends of the strips, said strips having tongues disposed in the grooves and of less length than the grooves, and one of the grooves being extended to the outer margin of the frame and

outer plies secured directly to the outer sides and edges of said strips.

2. A panel of the class described having a frame, said frame having grooves in the inner walls thereof, strips of the same thickness as said frame entered in said grooves, a hub engaged by the inner ends of the strips, said strips having tongues disposed in the grooves and of less length than the grooves, one of the grooves being extended to the outer margin of the frame, said hub having slots in the periphery thereof engaged by the inner ends of the strips, and outer plies secured directly to the outer sides and edges of said strips.

3. A panel of the class described having a frame, said frame having grooves in the inner walls thereof, strips of the same thickness as said frame entered in said grooves, a hub engaged by the inner ends of the strips, said strips having tongues disposed in the grooves and of less length than the grooves, one of the grooves being extended to the outer margin of the frame, said hub having slots in the periphery thereof engaged by the inner ends of the strips, a supplemental block disposed against the inner surface of a portion of the frame, said block having

a groove in its inner surface engaged by the adjacent tenons of the strips and outer plies secured directly to the outer sides, to the block and edges of said strips.

4. A panel of the class described having a frame, said frame having grooves in the inner walls thereof, strips of the same thickness as said frame entered in said grooves, a hub engaged by the inner ends of the strips, said strips having tongues disposed in the grooves and of less length than the grooves, one of the grooves being extended to the outer margin of the frame, said hub having slots in the periphery thereof engaged by the inner ends of the strips, supplemental blocks disposed against the inner surfaces of portions of the frame having tongues engaging the adjacent grooves of the latter, outer plies secured directly to the outer sides of the frame, to the block and edges of said strips, said blocks having grooves in their inner surfaces, and the tenons of adjacent strips extending into said grooves less than the depth of the latter, two of the strips engaging the block being in substantially diametric alinement and thicker than the other strips.

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