

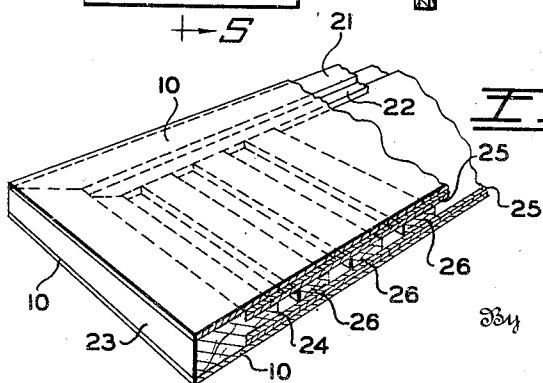
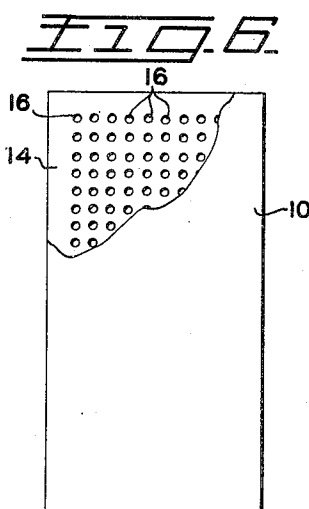
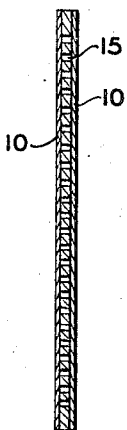
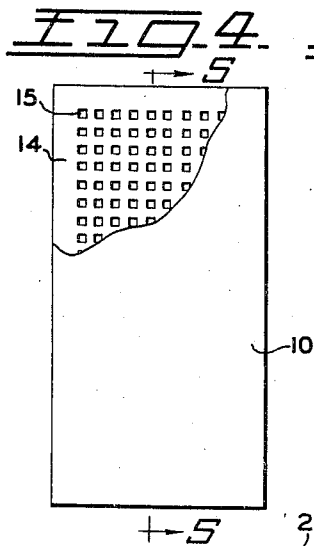
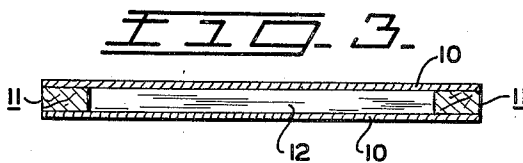
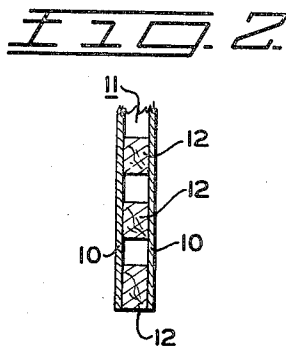
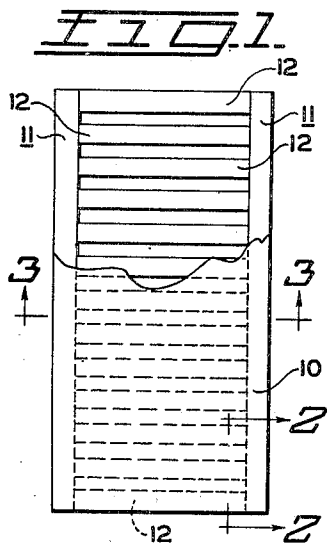
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PANELING

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PANELING

Carl P. Jensen, Sanborn, N. Y.

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3 Claims. (Cl. 20—35)

This invention relates to paneling and panels formed therefrom and in particular to such paneling and panels which are highly resistant to warping due to changes in temperature and humidity conditions to which they must be subjected.

It is an object of this invention to provide paneling constructions which are light in weight though possessed of strength and rigidity commensurate with constructions of far greater weight.

It is a further object of this invention to provide such constructions incorporating therein hollow dead air spaces adapted, in addition to providing for reduction in weight of the paneling, also to impart to the paneling additional insulating properties.

It is a further object of this invention to provide such paneling constructions comprising mainly perforate cores or bodies provided on opposite sides with solid or continuous panels wherein the arrangement of the perforations in the core or body is so disposed as to permit of the cutting from the paneling of door or other panels of widely varying dimensions.

These and other objects and advantages of the invention will appear from the following description taken in conjunction with the accompanying drawing which forms a part thereof and will be pointed out in the appended claims.

In the drawing:

Fig. 1 is a view in elevation, and in section, of a paneling construction according to the invention.

Fig. 2 is a fragmentary enlarged section taken on the line 2—2 of Fig. 1.

Fig. 3 is an enlarged section taken on the line 3—3 of Fig. 1;

Fig. 4 is a view similar to Fig. 1 of a modification according to the invention;

Fig. 5 is a section taken on the line 5—5 of Fig. 4;

Fig. 6 is a view similar to Fig. 4 of a second modification according to the invention; and

Fig. 7 is a view, in perspective, of a third modified form of paneling embodying the principles of the modification illustrated in Fig. 1.

Referring to the drawing in detail, it will be seen that in each of the modifications illustrated in the drawing, the paneling consists of a pair of surface panels secured to opposite sides of a core or frame which is provided with apertures or perforations disposed in a particular manner, as hereinafter described, which adapts the paneling

for cutting doors or other panels of widely varying shapes and dimensions.

In the construction illustrated in Figs. 1, 2 and 3, as well as in other illustrated embodiments, the surface panels are designated 10. In the construction in Figs. 1, 2 and 3, the core or framework comprises vertical stiles 11 defining the sides of the core or frame and having secured therebetween, in a conventional manner, as by dowels or mortise and tenon constructions, the transverse rails 12 which are uniformly spaced at distances less than their width. The thickness of the stiles 11 and rails 12 is equal and may be of any desired value. The surface panels 10 may be formed of plywood, veneer, or other desired material and the stiles and rails may be solid or laminated. The surface panels 10 are glued to the core or body comprising stiles 11 and rails 12 in suitable known manner.

In the embodiments illustrated in Figs. 4 and 5, the core or frame 14 is of perforate or sheet form, either solid or laminated, and having the perforations therein uniformly spaced from one another at distances greater than their width in the case of Fig. 4, or their diameter in the case of Fig. 6. In the embodiment illustrated in Figs. 4 and 5, the perforations are square and are designated 15, in the embodiment illustrated in Fig. 6, the perforations are circular and are designated 16.

The paneling constructions illustrated in Figs. 1, 2 and 3 permits of the cutting therefrom of doors or panels of dimensions varying widely in one direction. The spacing and character of apertures or perforations of the paneling illustrated in Figs. 4, 5 and 6, however, permits of the cutting therefrom of doors or panels of dimensions varying widely both in width and also in length, or in a plurality of dimensions.

In the construction illustrated in Fig. 7, the stiles, designated 21, are provided with inwardly extended tongues 22 and the exterior or top and bottom rails 23 are provided with similar extending tongues 24. The tongues are adapted to support the reinforcing laminated panels 25 which have their exterior surfaces flush with the surfaces of the stile 21 and exterior rails 23. Secured between the opposite tongues 22 of the stiles 21, in the same manner in which the rails 12 are secured between the stiles 11 in the construction of Figs. 1, 2 and 3, are the intermediate or interior rails 26 which like the rails 12 of the above described construction, are uniformly spaced from one another at dimensions less than their width. The thickness of the intermediate

rails 26 is equal to the thickness of the tongues 22 and 24. It will thus be seen that the frame or core of the construction illustrated in Fig. 7 is formed by the stiles 21, rails 23 and 26, and the reinforcing laminated panels 25. The surface panels 10 are secured to this frame or core in the same manner as the panels 10 are secured to the frames or cores in the embodiments illustrated in Figs. 1 to 6, inclusive, as described above.

As may readily be seen from Figs. 1 to 3, inclusive, the paneling illustrated therein may be cut to lengths varying within rather wide limits to produce a door or another panel having a solid top and bottom and surfaces provided by the rails 12 at either end. If the width of the rails 12, for instance, is three inches and the width of the apertures by the adjacent rails is two inches, then the length of the panel cut from the paneling may be varied in increments of one inch with the provision of a solid surface at each end of the cut panel. For instance, if it be desired to reduce the length of the panel illustrated in Fig. 1 by one inch, each end thereof may have one-half inch cut therefrom. If it be desired to reduce the length of the panel two inches, one inch may be cut from each end of the panel. If it be desired to reduce the length of the panel four inches, two inches may be cut from each end of the panel with the result that one inch of each end of the rail 12 shall remain to provide a solid surface at each end of the panel. If it be desired to reduce the length by five inches however, the five inches may be cut from one end with the result that the end rail at each end of the resulting panel shall be intact, or three inches in width.

In the embodiment of Fig. 7, it is merely necessary, in reducing the length of the paneling, that any cuts made therein shall pass through the rails 23, the tongue 24 thereof and the intermediate rails 26.

In the constructions of Figs. 4, 5 and 6, as pointed out above, the dimensions of the panels cut from the paneling may be varied both in length and also in width. For instance, if the width and length of the apertures 15 be one inch or the diameter of the aperture 16 be one inch and the centers of these apertures be spaced at three inches, then the nearest adjacent portions of the respective apertures shall be spaced two inches and by following the procedure explained above in the description of the construction of Figs. 1, 2 and 3, both the width and the length of doors or panels cut from the paneling

illustrated in Figs. 4, 5 and 6 may be varied in increments of one inch or less.

In each of the above cases, the variation of the variable dimension or dimensions, of the panels or doors, cut from the panel in nowise affects the edge surfaces of the finished door or panel and in nowise detracts from the insulating capacity of the finished door or panel or the strength thereof. In any of the constructions illustrated in the drawing and described above, it is, however, necessary, in the attainment of this invention, that the apertures or open spaces in the frame or core of the paneling be spaced apart by solid material a distance greater than the greatest dimension.

It is, of course, to be understood that the above described structure is merely illustrative and in nowise limiting and that I desire to comprehend all modifications included within the scope of the appended claims.

Having thus fully described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A warp resistant panel construction, severable in small increments to form panels of various predetermined dimensions, and comprising, a core provided with uniformly spaced similar apertures, separated at distances greater than their dimensions in at least one direction, and a pair of continuous surface panels secured to opposite sides of said core, the size of the apertures and the distances of separation between the apertures being in whole number units of measurement.

2. A warp resistant panel construction, severable in small increments to form panels of various predetermined dimensions, comprising a core of sheet form having therein similar apertures of geometric form separated in each direction at distances greater than their dimensions in that direction, the size of the apertures and the distances of separation between the apertures being in whole number units of measurement.

3. A warp resistant panel construction provided with internal dead air spaces and severable in small increments to form panels of varying predetermined dimensions in at least one direction, said panel construction comprising an apertured core having continuous surface panels secured thereto, said core comprising a core of sheet form provided with similar geometric apertures uniformly spaced in each direction at distances greater than their dimension in that direction, the size of the apertures and the distances of separation between the apertures being in whole number units of measurement.

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