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PANELING

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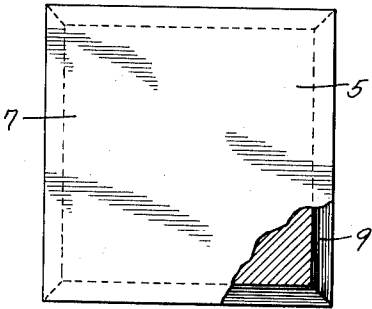


Fig. 1.

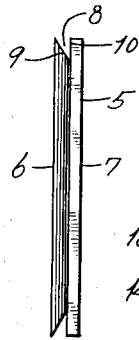


Fig. 2.

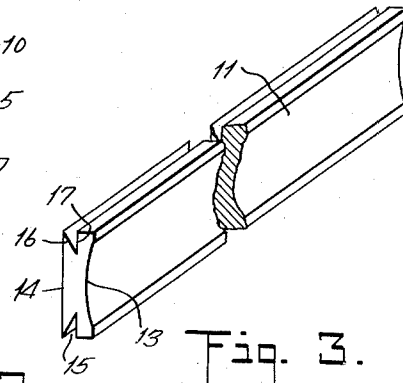


Fig. 3.

Fig. 4.

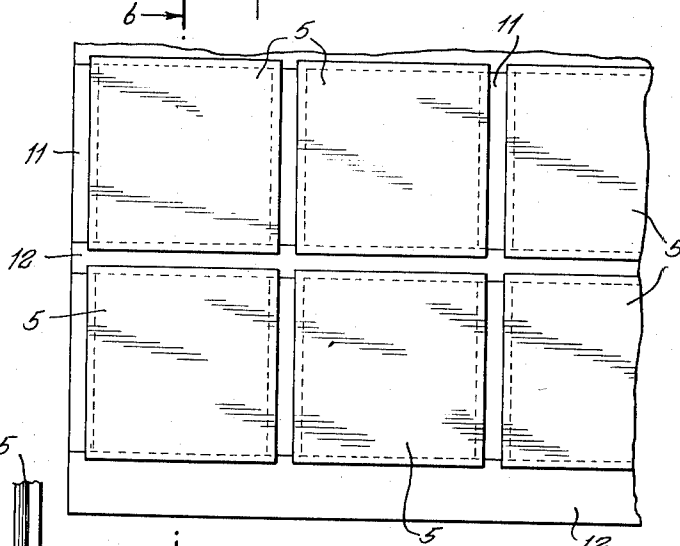
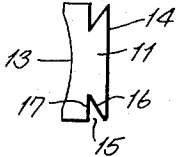


Fig. 5.

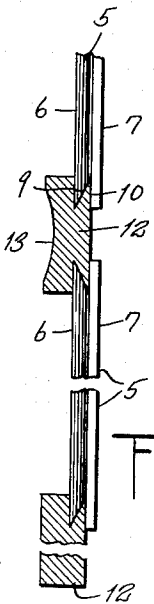


Fig. 6.

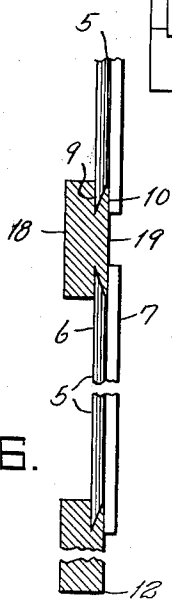


Fig. 7.

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# UNITED STATES PATENT OFFICE

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## PANELING

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3 Claims. (Cl. 20—15)

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This invention relates to improvements in panelling which can be made of plywood, wood, plastics, metal, or any other suitable material.

As presently constructed, the panelling of an interior wall or ceiling requires the services of highly skilled craftsmen who must cut the panels and backing on the job—nail the backing to the existing wall or studding, then cut and nail the panels to the backing. This is a costly operation, both in labor and material, as there is, inevitably, a waste of material in cutting the panels, and the work is exacting and lengthy. Furthermore, the panel edges must be nailed to the backing, leaving rows of nailheads showing, which must either be filled up or left unsightly.

The invention contemplates the provision of pre-cut or fabricated panels, grooved on all four edges thereof, designed for assembly with pre-cut stripping, or backing, which are complementally grooved on opposite transverse edges.

This construction is capable of being assembled by unskilled workers, home owners and the like, to fulfill all dimensional requirements, to produce panelling which, in aesthetic and workmanship characteristics, is the equivalent of the job produced by skilled workmen constructed at but a fraction of the cost of the latter. Furthermore, the panelling may be used for exterior wall facing and ceiling.

In the drawings:

Fig. 1 is a plan view, partially broken away, of one of the panel elements.

Fig. 2 is an end view of one of the panels.

Fig. 3 is an isometric view of one of the vertical backing.

Fig. 4 is an end view of the backing.

Fig. 5 is a front view of a section of a wall panelling embodying the invention.

Fig. 6 is a cross-section taken along 6—6 of Fig. 5.

Fig. 7 is a view similar to Fig. 6 of a modified backing both faces of which are unmilled.

Like reference characters are employed to designate corresponding parts in the following description.

Essentially the invention contemplates the provision of a plurality of prefabricated panels, designed for assembly with prefabricated backing. The term "backing" as hereinbefore stated is an all inclusive term which will be employed to include stripping, backing filling strips or any other members designed as horizontally or laterally spaced supports. The term "panel" includes any sheet of relatively stiff material made of plywood, wood, plastics, metal or any other suitable

material. The term "panelling" includes any interior or exterior wall facing in which the individual panels are spaced apart from and supported by the backing.

5 Panels 5 are square and relatively thin with minimum size of  $\frac{1}{4}$ " panels, with faces 6 and 7. The panels are routed, at all four edges thereof, to define bevel groove 8 having relatively deep bevels 9 and straight edges 10, the peripheral edge of face 6 meeting or coinciding with the outer edges of bevels 9.

10 Panels 5, as illustrated are of relatively small size, for illustrative purposes, but it will be understood that the panels may be constructed of any desired or suitable size and shape or thickness. And we have found that this construction is the only one which will permit of the use of thin, that is  $\frac{1}{4}$ " panels.

20 Cooperating with and designed to support and space apart panels 5 are vertical backing 11 and horizontal backing 12, having milled face 13 and face 14. Members 11 and 12 are routed at two opposite longitudinal edges to form bevel groove 15 complementary to bevel groove 8 of panels 5, said bevel groove 15 having bevels 16 and straight edges 17. The outer most edges of bevels 16 meet or coincide with the upper and lower edges of face 14. Backing 11 and 12 as will be noted in Figs. 6 and 7 are of relatively greater thickness than panels 5.

30 In forming a panelled wall, a section of which is shown in Fig. 5, base backing 12 is secured to the existing wall structure, utilizing adhesive cement, nails, or in any other suitable manner. Backing 12, it should be noted, may be suitably cut to dimensionally fit the size of the wall base, as will be understood by any artisan, or layman who is capable of using a tape or rule. The backing employed as the base may, if desired, be wider than that shown, for decorative purposes, but this is purely optional.

40 Next, the center of the wall is determined and when dead center is marked vertical backing 11 is secured to the wall milled face 13 inward, a panel 5 is interlocked at one edge with the complementary bevel grooved edge of backing 12, one of the other adjacent edges being interlocked with the complementary bevel grooved edge of backing 11. The manner in which panels 5 interlock with backing 11 and 12 to a nicety is well illustrated in Figs. 6 and 7 with the complementary bevel grooves 8 and 15 interlocking to form a tight interlocking fit.

55 Having placed one panel 5 in interlocking engagement at two edges with the vertical and hori-

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zontal backing, another vertical backing is interlocked at an opposite edge of the panel to the first fixed vertical backing, and the work similarly proceeded with to the right and left of center until the first row of panelling is positioned. Next a second row of horizontal backing is interlocked with the top edges of the first row of panels and the backing nailed, cemented, glued or otherwise secured to the wall, and a second row of panels positioned in the same manner as the procedure explained with reference to the first row. The work is proceeded with in like manner until the wall facing is panelled.

Figs. 5 and 6 depict panelling in which milled faces 13 of the backing, both vertical and horizontal, is adjacent to the wall surface. The panelling thus formed may be positioned on a wall in the reverse manner to that previously explained, that is, instead of milled faces 13 being adjacent the existing wall surface they would be outward from the said surface, and the faces 7 of the panels would be cemented or otherwise secured to the wall surface.

Fig. 7 illustrates a modified form of backing with neither of faces 18 or 19 thereof being milled. In this modification it would be desirable to secure the backing with face 18 in juxtaposition to the wall as the decorative effect of the panelling is superior with the unmilled face of the backing recessed with relation to the faces of the panels.

Of capital importance is the fact that the component elements of the improved panelling may be prefabricated in large quantities to provide a wide range of highly decorative interior or exterior wall facing capable of being assembled by unskilled workers, such as home owner, a handy man, or the like. The many types of plywood panels, for example, afford a broad selection of wood grain facings, and plywood is one preferred material of which the panels may be constructed. It is inherently susceptible to facile working, as for example, with high speed router to produce the desired bevel grooved edges, although, as previously stated, other component materials may be employed.

Furthermore, the position of the horizontal and vertical backing members may be reversed when constructing a wall, that is the relatively long horizontal backing may be used as the vertical supports and the short vertical backing utilized as the horizontal supporting members.

In its broader aspects, the invention comprehends the employment not only of the means described, but of equivalent means for performing the recited functions. It is desired to reserve the right to effect such changes as may fairly come within the scope of the appended claims.

We claim:

1. A wall panelling comprising, in combination, square, thin, panels having two faces, said panels bevel grooved at four edges thereof, the bevel grooves being deep and having straight edges and bevels, the outer ends of the bevels and the

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straight edges being in the same plane at right angles from the faces of the panels, the outer ends of the bevels coinciding with the edges of one of the faces of the panels, vertical and horizontal backing complementally bevel grooved at opposite transverse edges, said bevel grooves also having straight edges and bevels, the outer ends of the bevels coinciding with the edges of one of the faces of the backing, the bevel grooves of the panels adapted to interlock at all edges thereof with the bevel grooves of the backing when the backing, vertical and horizontal, is positioned between horizontal and vertical rows of panels.

2. Wall panelling as described in claim 1 wherein the horizontal and vertical backing is of greater thickness than that of the panels, and said backing is adapted to be secured to the wall to support the panels.

3. Panelling comprising, in combination, a plurality of identically sized sheets, each sheet having two faces and four edges, with the opposite edges of the sheets in parallelism, the sheet being continuously bevel grooved on all four edges thereof, each groove being deep and having straight edges and bevels, the outer ends of the bevels meeting and coinciding with the edges of one of the faces of the panels, the outer ends of the straight edges and bevels being in the same plane, said plane at right angles to the faces of the panels, horizontally disposed backing complementally bevel grooved on opposite longitudinal edges, said backing of greater thickness than the sheets for interlocking with and spacing apart the sheets, the bevel grooves of the backing having bevels and straight edges, the outer ends of the bevels coinciding with the edges of one of the faces of the backing, vertically disposed backing similarly bevel grooved for spacing apart the sheets, the bevel grooves of the sheets adapted to interlock at all edges with the bevel grooves of the backing when the backing, horizontal and vertical, is positioned between horizontal and vertical rows of the sheets.

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