March 10, 1942. H. E. SCULL 2,276,071

PANEL CONSTRUCTION

Filed Jan. 25, 1939

Fig. 1.

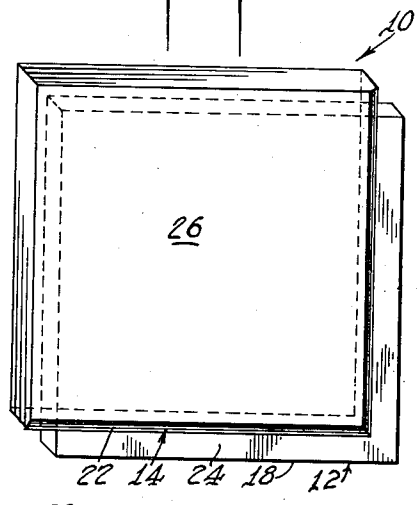



Fig. 2.

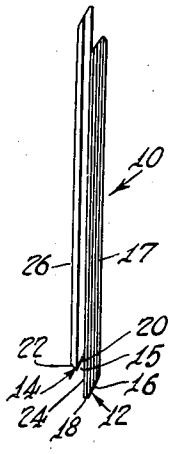



Fig. 3.

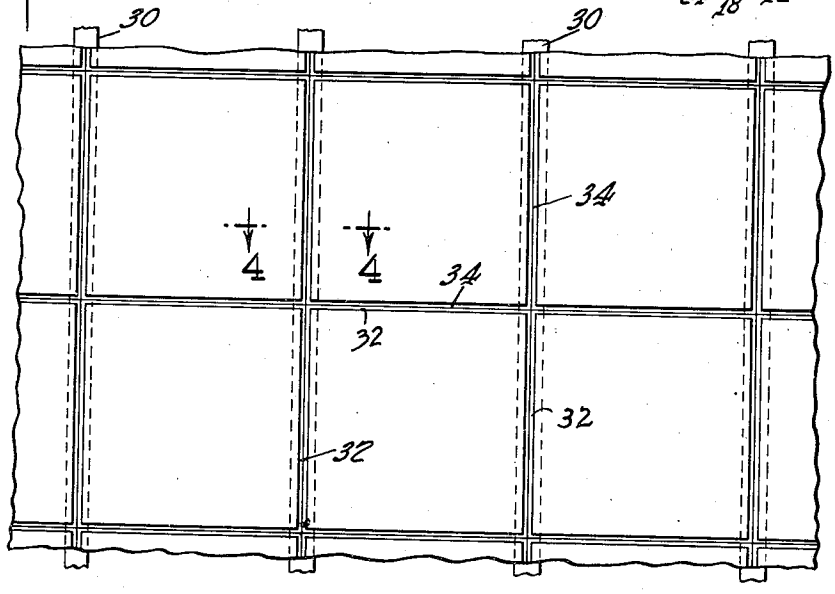
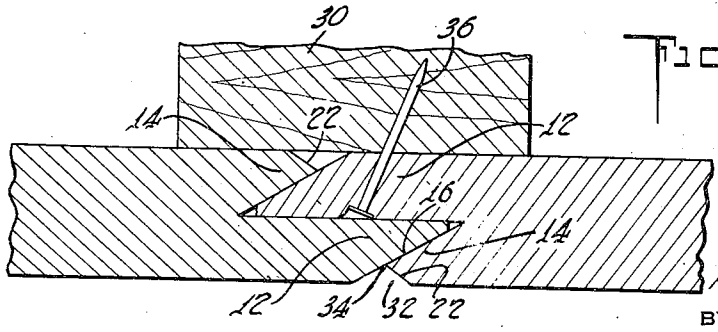



Fig. 4.




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## PANEL CONSTRUCTION

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Application January 25, 1939, Serial No. 252,713

3 Claims. (Cl. 20—15)

The present invention relates to panels or boards of a character to serve as the sheathing or facing for walls, including ceilings and the like, and particularly to a joint construction for the panels. The invention is of particular utility when employed in connection with board materials formed from compressed wood or similar fibres, the term "fibre board" being employed hereinafter in a conventional sense to include all such and similar materials.

Heretofore, panel boards constituting wall facings, plaster bases, and the like have included edge constructions of such character as to provide "shiplap" and similar joints when the panels are laid in abutting relationship. However, particularly in those instances where the panels are employed as the interior wall facing, the joint constructions previously proposed have failed to give either the appearance or the structural characteristics desired.

The present invention has for a primary object the provision of an edge construction for panels, boards and the like which will adapt the same for assembly to provide an improved wall covering.

Another object of the invention is the provision of a panel including an edge construction which, when the panels are laid upon a wall, or the like, will permit of the concealment of the means for securing the panels to the supporting structure.

Another object of the invention is the provision of a panel including edges of such configuration that the furthest extension of each edge of the board will not constitute the apparent panel edge when the same are laid up in abutting relationship, whereby accidental marring of the edges will not affect the appearance of the finished wall covering.

A still further object of the invention is the provision of a joint for panels or the like which provides a secure interlock between adjacent panels and which is stronger and otherwise more satisfactory than the joint constructions heretofore provided.

My invention will be more fully understood and further objects and advantages thereof will become apparent when reference is made to the detailed description thereof which is to follow and to the accompanying drawing in which

Fig. 1 is a plan view of a panel board embodying the construction of the present invention;

Fig. 2 is an edge view of the board of Fig. 1;

Fig. 3 is a view depicting an assembly of the panels of Fig. 1 on a wall or similar structure; and

Fig. 4 is a sectional view taken on the line 4—4 of Fig. 3.

Referring to the drawing, and particularly to Figs. 1 and 2, there is depicted a panel 10 embodying the present invention. The panel illustrated is one of relatively small size, say 16 inches by 16 inches, and also is drawn somewhat out of proportion to clearly disclose the edge structure. However, it will be understood that the panels may be made of any suitable size, for example, up to widths, say, of two feet or more and lengths of sixteen feet or more.

The material of which the panel is composed preferably comprises "fibre board," as previously pointed out, that is, board composed of wood or similar fibres which have been moulded or otherwise sheeted into board form.

According to the present invention, a panel or board 10 is provided, preferably on each of its edges, with rabbeting of a type to provide a relatively extending tongue or flange 12 and a relatively short tongue or flange 14. The opposite edges of the panel are of substantially reverse configurations, each being the complement of the other. Each of the panel edges, as best shown in Figs. 2 and 4, is constituted of the extending tongue 12 and the relatively short tongue 14, defining therebetween a recess 15. Each of the tongues has a thickness at its base approximating half the thickness of the board. The side of tongue 12 at a face 17 of the board includes a bevel 16 extending from the face 17 to or substantially to the outermost end 18 of the flange. Flange 14 includes a beveled side 20 extending from the base of flange 12 to the outer end of flange 14 and a second bevel 22 extending from the outer end of bevel 20 to a face 26 of the board.

In a preferred construction, the bevel 20 lies at an angle of substantially 30° to a side 24 of flange 12 and bevels 16 and 22 at an angle of substantially 120° to the adjacent faces 17 and 26, respectively, of the board 10. It will be understood, however, that any suitable angles may be employed for the bevels.

Referring now particularly to Figs. 3 and 4, panels of the type of Fig. 1 are illustrated in assembled relationship to provide a covering or sheathing for a wall, ceiling, or the like. Preferably, the panels are of a suitable dimension in one direction to extend between the centers of studs, furring strips, or the like 30 forming, or supported from, the base wall structure. The


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panels are laid over the base wall in abutting relationship with the rabbeted edges of each panel interengaged with the complementary configured edges of adjacent panels in a manner illustrated particularly in Fig. 4. Thus, it will be noted from an examination of this figure that the complementary edges interlock to define a rigid joint structure and also form depressions **32** of triangular cross section between the panels. The apparent edges of the panels are represented by the lines **34** constituting the place of meeting of the bevel **22** of flange **14** of one panel with the bevel **16** of flange **12** of the adjacent panel.

In the preferred manner of laying the panels, a panel is secured to a stud, furring strip, or the like **30** by means of nails or other fastening means **36** driven through the tongue **12** which lies against a member **30**. A complementary edge of another panel may then be interfitted with the edge of the secured panel in the manner indicated in Fig. 4, no nailing of this edge of the second panel being required, due to the interlock provided. The opposite edge of the second panel is nailed through its flange **12** into an underlying supporting member **30**. As many additional panels as are required to cover the desired surface may be similarly laid.

As illustrated particularly by Fig. 4, and as described above, a panel edge configuration in accordance with the present invention provides for the blind nailing of the panels, the nail or other securing means **36** driven through the flange **12** of one panel being entirely covered by the oppositely positioned flange **12** of the adjacent panel, the latter such flange being interlocked in the recess **15** defined by the flanges **12** and **14** of the first mentioned panel. In addition to providing for blind nailing and for a very securely interlocked joint, the described edge configuration also serves materially to reduce the danger of injuries to panel edges being apparent in the finished structure. Thus, it will be noted that the flanges **12** in each instance extend beyond the portions of the panels which define the apparent panel edges **34**. Injuries to which the panels may be subjected in handling or transportation will normally occur to the outer edges of flanges **12** which are contained within the recesses **15** and hence will not be observable when the panels are assembled on a wall structure or the like. Panels or boards in accordance with the present invention exhibit the further advantage that they are reversible and may be laid with either side outermost. Hence, a choice of surface effects may be provided for by differently finishing or coloring the two faces of the panel.

As previously pointed out, wall panels in accordance with the present invention may be made of any dimensions desired. Also, they may be employed either as a base to receive plaster or other finishing coats, or directly for the interior finish. In the former case, the grooves **32** provide recesses for plaster interlock at the joints between the boards. Furthermore, although the invention has been described as particularly applicable to fibre board panels, it will be understood that the joint construction disclosed may be employed with boards made of any desired materials and the several advantages and functions of the invention be obtained.

Having thus described my invention in rather full detail, it will be understood that these details need not be strictly adhered to, but that various changes and modifications will suggest themselves to one skilled in the art, all falling within the scope of the invention as defined by the subjoined claims.

What I claim is:

1. An interior decorative panel comprising a fibre board body having opposite edges of substantially complemental configuration, each of said edges including a pair of tongues of unequal length, the longer of said tongues having a bevel extending from the outer end thereof to an adjacent face of the body and the shorter of said tongues having oppositely beveled sides.

2. An interior decorative wall sheathing comprising a plurality of fibre board panels laid in edge abutting relationship, adjacent panels including abutting edges of substantially complementary form, each of said edges comprising a pair of tongues of unequal length defining a recess therebetween, the longer of said tongues including a bevel extending from the outer end thereof to an adjacent face of the panel and the shorter of said tongues having oppositely beveled sides, the longer of said tongues of one of said edges being received within the said recess of the other edge.

3. An interior decorative wall sheathing comprising a plurality of fibre board panels laid in edge abutting relationship, adjacent panels including abutting edges of substantially complementary form, each of said edges comprising a pair of tongues of unequal length defining a recess therebetween, the longer of said tongues including a bevel extending from the outer end thereof to an adjacent face of the panel and the shorter of said tongues having oppositely beveled sides, the longer of said tongues of one of said edges being received within the said recess of the other edge, whereby each of said panels is reversible with respect to each of the other said panels.

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