United States Patent [19]

Gibson

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[54] **PANEL FIXING SYSTEM**

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[52] **U.S. Cl.** **52/471,** 52/480, 52/489, 52/714

[51] **Int. Cl.** **E04c 1/34,** E04d 1/36

[58] **Field of Search** 52/474, 483, 489, 492, 52/495, 496, 385, 391, 460, 468, 471, 350, 460, 480, 714, 312

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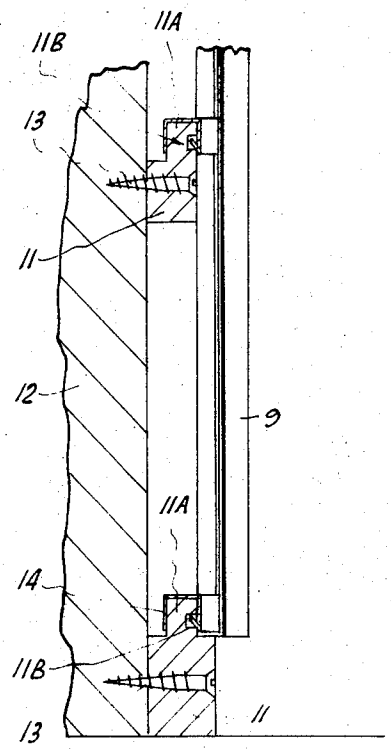
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Primary Examiner—Henry C. Sutherland

[57] **ABSTRACT**

Wall and ceiling panelling means comprising a plurality of boards, each having a groove extending longitudinally of and formed in each of the longitudinal edge faces of the boards. An array of substantially parallel spaced-apart battens is fixed in any suitable manner to a wall structure, each batten having a protruding upper rib and a clip retainer groove formed thereon. A plurality of fixing clips are provided, each adapted to engage any one of the battens, and each having anchorage flange means being adapted to enter the grooves in the boards to retain the boards in assembly with the battens and wall structure.

5 Claims, 8 Drawing Figures



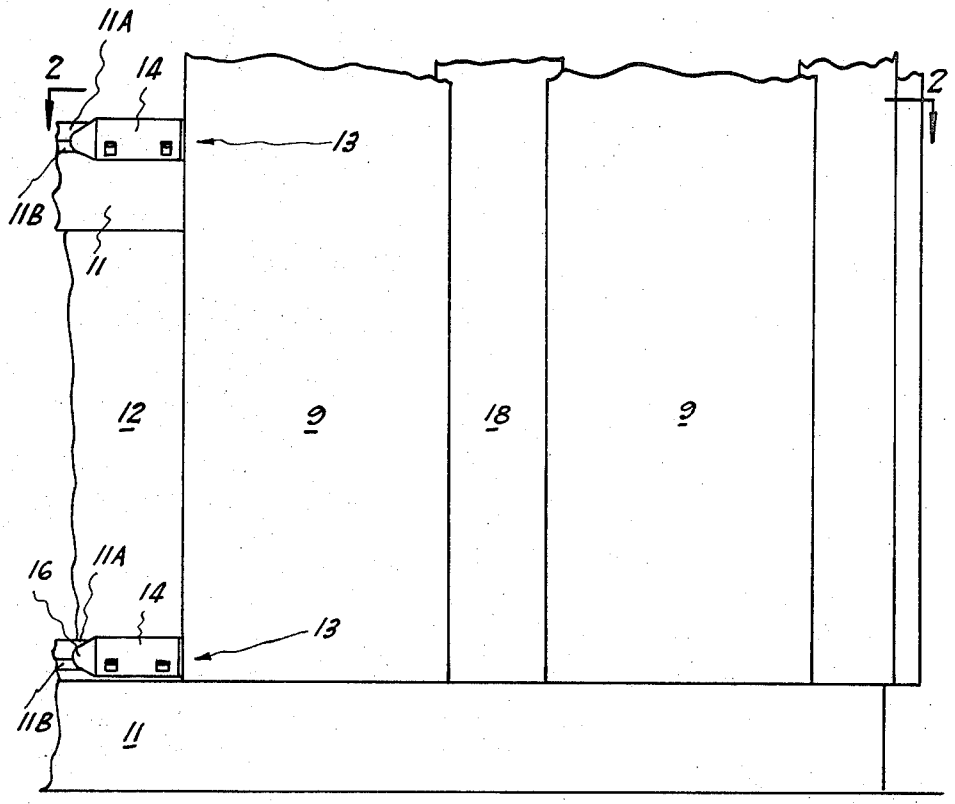

11A
2
14
13
2
11B
11
12
9
18
9
16
11A
14
13
11B
11

FIG. 1.

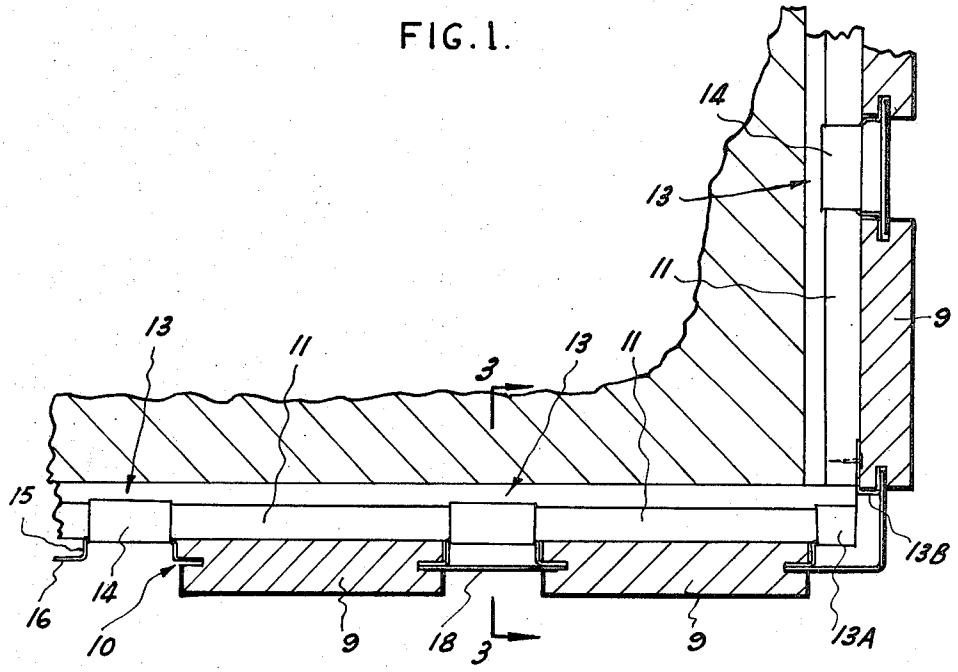

14
13
11
9
13
11
13
11
3
15
13B
16
14
10
9
18
3
9
13A

FIG. 2.

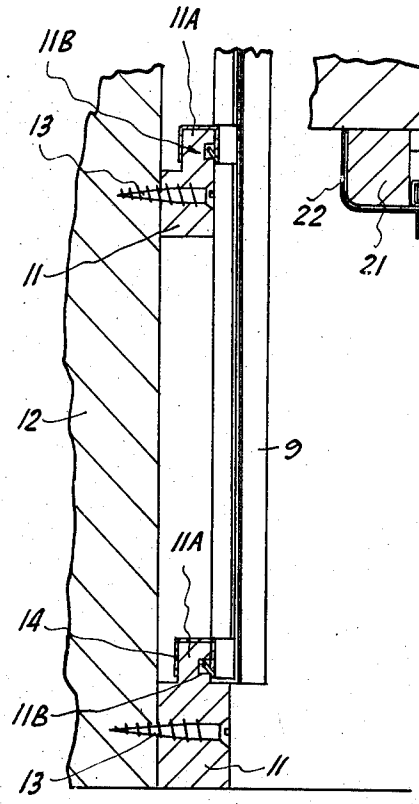


FIG. 3.

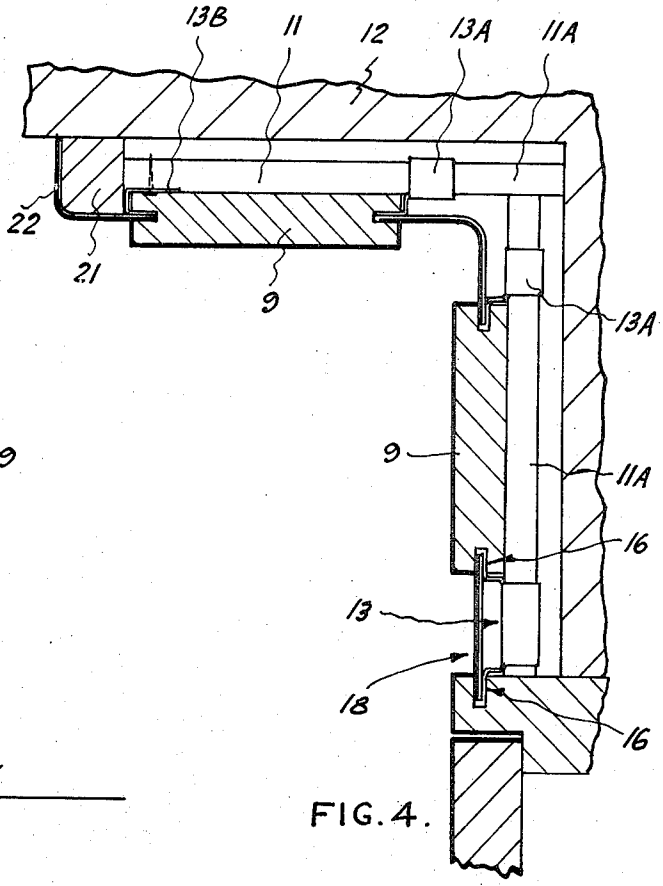


FIG. 4.

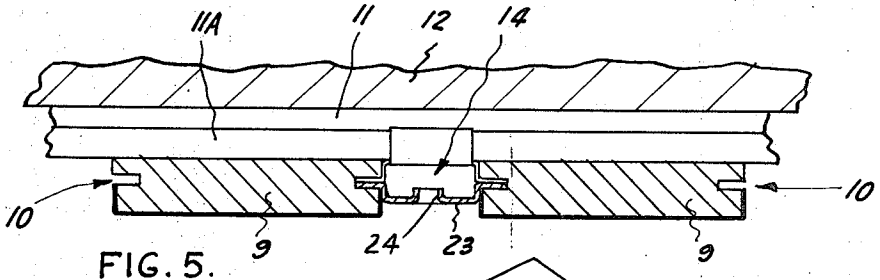


FIG. 5.

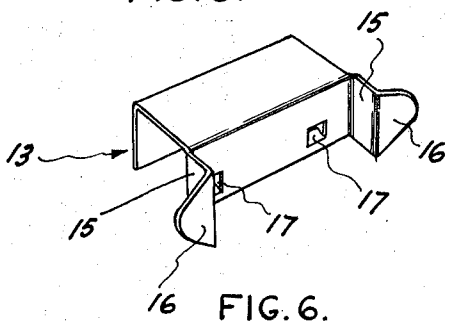


FIG. 6.

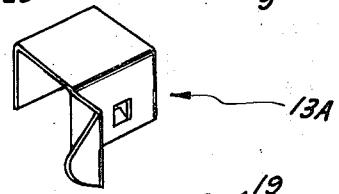


FIG. 7.

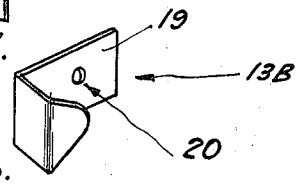


FIG. 8.

PANEL FIXING SYSTEM

This invention relates to wall and ceiling panelling, in particular panelling comprising a plurality of boards, planks or like strips disposed side by side.

It is known to use so-called ship lap planking comprising a plurality of tongued and grooved boards placed edge to edge with the tongue of each board lodged in the groove of its neighbouring board.

Each board is held in place by nails driven-in through the groove surface so that the heads of the nails, once punched below that surface, are hidden by the tongue of the next fixed neighbouring board.

Such prior known arrangements have suffered from various disadvantages.

For example the protruding tongues are susceptible to accidential breakage before fixing, and (due to subsequent shrinkage) to splitting after fixing.

Furthermore installation of the panelling requires skilled workers, is time consuming, and therefore expensive.

An object of the invention is to overcome, or at least ameliorate the above mentioned disadvantage of the prior art.

The invention consists in wall panelling comprising a plurality of boards, each having a groove extending longitudinally of and formed in each of its longitudinal edge faces, an array of substantially parallel spaced apart battens, a plurality of fixing clips each adapted to engage any one of the battens, and each having two oppositely directed anchorage flanges spaced from and substantially parallel to a batten to with which the clip is engaged; said anchorage flanges being adapted to enter the grooves in the boards to retain the boards in position.

According to preferred embodiments of the above described invention the anchorage flanges are spaced apart and as a result there is a substantial gap between neighbouring planks. That gap may be filled by flexible, cover strips disposed with opposite edge margins lodged in the board grooves and hiding the clips.

By way of example an embodiment of the above described invention is described hereinafter with reference to the accompanying drawings.

FIG. 1 is a front elevation of panelling at an external wall corner in accordance with the invention.

FIG. 2 is a sectional plan view taken on line 2—2 of FIG. 1.

FIG. 3 is a sectional elevation view taken on line 3—3 of FIG. 2.

FIG. 4 is a view similar to FIG. 2 showing panelling at an internal corner.

FIG. 5 is a view similar to FIG. 2 showing panelling in accordance with another form of the invention.

FIG. 6 is a perspective view of a fixing clip being a component of the panelling of FIG. 1.

FIG. 7 is a perspective view of another fixing clip.

FIG. 8 is a perspective view of still another fixing clip.

The panelling illustrated by FIGS. 1, 2 and 3 comprises a plurality of upright boards 9 each of which may be a body of timber covered externally with an ornamental, possibly timber grained, plastics or other sheath.

The longitudinal side edges of the boards 9 are grooved as at 10. The boards 9 are fixed by clips (to be described later) to an array of substantially horizontal

wall battens 11 secured to a wall 12 by conventional fixing means such as, for example, wall screws 13. Each of the battens 11 has a protruding upper rib 11A having a clip retainer groove 11B formed in it.

The boards 9 are held in place by fixing clips 13 throughout the major part of the panelling that is to say in respect of boards 9 remote from the edges of the panelling or from corners. Clip 13 comprises a channel shaped body portion 14, co-directed end flanges 15 thereon and two oppositely directed anchorage flanges 16, respectively projecting from the end flanges 15. The anchorage flanges 16 are spaced from and substantially parallel to the battens 11 and are adapted to enter the edge grooves 10 of the planks 9. It will be observed in FIG. 3 that the lower extremities of the boards 9 rest upon a shoulder 11C defined by the lowermost batten.

Each of the channel shaped bodies 14 has one or more detents 17 pressed from it adapted to engage in the retaining groove 11B of a batten with which the clip is engaged. Once the planks 9 have been applied to the clips 13 the latter may be concealed by plastics or other resilient cover strips 18 which are thin enough to enter the grooves 10 along with the anchorage flanges 16.

The panelling illustrated by FIGS. 1, 2 and 3 is associated with an external wall corner. At such a location the clips 13 may be replaced by clips 13A and 13B respectively.

Clip 13A is essentially one half of a clip 13 and has only one detent and one anchorage flange.

Clip 13B differs from clips 13 and 13A in that it does not have a channel sectioned body. Its body is in the form of a simple plate 19 pierced by a fastener clearance hole 20 to enable the clip to be nailed to a batten.

As can be seen in FIG. 2 the clips 13A and 13B are hidden by an L-shaped cover strip which may be somewhat more rigid than the planar cover strips 18.

The embodiment of the invention illustrated by FIG. 4 shows panelling at an internal wall corner and in that event two clips 13A may be utilised. Covered by another L-shaped cover strip but having its exposed face between the arms of the L rather than on the other side as in the FIG. 2 embodiment.

FIG. 4 also illustrates an end stop for panelling comprising a clip 13B and stop bead 20 coated with a sheath 22 of material similar to that of the cover strips.

FIG. 5 illustrates an embodiment of the invention similar to the earlier described embodiments but differing in that its cover strip 23 is relatively rigid and is perforated at intervals along its length by flanged openings 24. The purpose of those openings is to enable clip-on brackets or the like for the support of shelving or other wall mounted items to be secured to the panelling by engagement within the openings 24.

From the foregoing it will be seen that the invention provides a panelling system wherein tongues need not be formed on the boards. No tools are required to fasten the panelling except those necessary to fix the battens to the wall but of course, the battens may be fixed rapidly without a great deal of care, without this deleteriously affecting the appearance of the finished job.

For preference the fixing clips are made of sheet metal cut, stamped or otherwise formed. The cover strips may be finished with a surface which gives them

an appearance similar to that of the front faces of the boards and are necessarily thin enough to be inserted by hand into a groove of a board along with an anchorage flange of a clip.

It will be appreciated that the term board as used herein covers not only wooden boards, but composition boards and similar slab like panelling elements irrespective of the material from which they may be made.

It will be further appreciated that panelling according to the invention may be applied to ceilings as well as to walls.

I claim:

1. Wall panelling comprising a plurality of boards, as defined herein, each having a groove extending longitudinally of and formed in each of its longitudinal edge faces, an array of substantially parallel spaced apart wall anchord battens each having a retainer groove formed therein, a plurality of fixing clips, each engaging one of the battens, and each of said clips comprising a body portion having a generally horizontally disposed web portion, a pair of generally planar front and rear elements depending in generally parallel spaced relation from said web portion, oppositely directed anchorage flange means extending from at least one extremity of said generally planar front element and being spaced from and substantially parallel to a batten to which the clip is engaged; said anchorage flange means entering said longitudinal groove in the boards to retain the boards in position, detent means being provided in said front element and being received within said retainer groove.

2. Panelling according to claim **1** including a plurality of cover strips overlaying said clips and each strip spanning from one board to a neighbouring board with the cover strip edge margins respectively disposed within the grooves of said boards.

3. Panelling according to claim **1**, wherein said batten defines an upwardly projecting support rib disposed in spaced relation with a wall to which the batten is secured and said body portion of said clip is of channel sectioned configuration body engaging over said rib with said web portion engaging said rib and said front and rear elements being positioned adjacent the front and rear faces of said support rib.

4. Panelling according to claim **1** including cover strip means concealing said clips between each of said boards, each of said cover strip means spanning from one board to a neighbouring board and including support margin flange means being received along with said anchorage flanges within said longitudinal grooves in said boards.

5. Panelling according to claim **1** wherein said battens include a protruding rib extending upwardly therefrom and being disposed in spaced relation with the wall to which said battens are secured, said retainer groove means being formed in the outer face of said upper rib.

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