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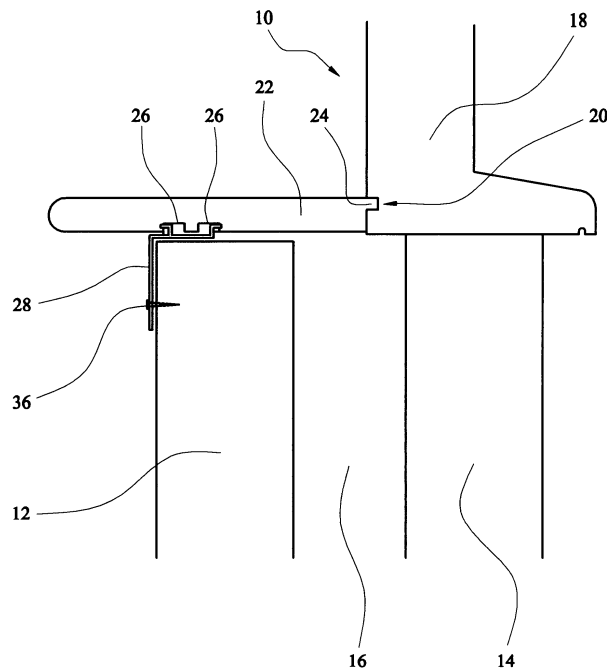
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(54) **Method and apparatus for mounting window boards**

(57) Apparatus and method of locating window boards (22) in the required position with regard to a corresponding window frame (18) and securing same to an interior wall (12) characterised by the providing a window board (22) being formed with location means (26),

providing fixing means (28) which are adapted to be received in the location means (26) and locating said fixing means (28) in position within the location means (26). The fixing means (28) is then bent or flexed into the internal wall (12) and fixed thereto through the pre-drilled holes in the fixing means (28).



**FIG. 1**

**EP 1 255 018 A2**

## Description

**[0001]** This invention relates to a method and apparatus for mounting window boards. Preferable although not exclusively, the invention relates to the fitting of window boards in newly built properties. The invention is also applicable to the replacement of existing boards and in the renovation and modernisation/restoration of existing properties.

**[0002]** At present the window board is fitted by first locating a tongue fitted on the edge of the window board into a corresponding groove formed in the window frame and marking the underside of the board along the inside surface of the internal wall of the property to determine where the fixing brackets should be located. After the underside of the window board has been marked, it is then removed and an angled bracket or the like is screwed onto the underside of the window board at the point where the window board was marked against the internal wall. The window board is then re-fitted so that the tongue of the board is accepted into the groove formed in the frame, the board is "squared" to the window and fixed to the internal wall through the holes in the bracket or the like. The fitting of window boards commonly takes place prior to plastering or the dry lining of internal walls.

**[0003]** However, the environment in which this type of work is generally carried out, whether this is a building site where new build properties are being erected or in connection with a property which is being restored or renovated, is generally disordered and cluttered with a high degree of debris accumulating. As the window boards are frequently placed on the floor in order to secure the brackets, this can lead to the boards coming into contact with debris and the surface of the board, which will be visible in the property, being damaged.

**[0004]** A further disadvantage is that as the boards need to be drilled to receive the fixing brackets and that this work is often done at speed, as the expectation on build times on newly built properties increases, inaccuracy can occur in the location of the drill holes which in turn leads to inaccuracies in locating the fixing brackets ultimately leading to either a badly fitted window board or else a board which cannot be used.

**[0005]** Accordingly, a need for improvements in the apparatus and method and fitting window boards has been identified.

**[0006]** In the embodiment of the invention there is provided apparatus and a method of fitting same which provide improvements in relation to some or all of the matters discussed herein without adversely affecting build times of new properties.

**[0007]** According to the invention there is provided a window assembly comprising a window frame, a window board and a means of securing said window board in the required position relative to the window frame and a wall. The window frame as previously described being formed with a groove to receive a corresponding tongue

formed in the window board. Said window board is generally made from either timber or medium density fibre-board (MDF) but could be constructed from other materials such as plastic, UPVC etc. The window board could also be factory finished in any coating; gloss paint, spray paint, paper veneer, melamine, plastic coating etc. The window board width, mould and length would generally be made to the specification of the house builder.

**[0008]** The window board is formed with location means such as grooves or channels which receive a fixing means. The channels may themselves be grooved. The location means could be in a continuous run along the entire length of the window board, or spaced at intervals along the length of the window board. Said location means may be in the form of a pair of grooves or channels or a single groove or channel. They may be pre-machined in the window board prior to coming on site. The form of the location means can be varied to allow for flexibility regarding placement of the fixing means. This also allows for them to be removed and replaced if required without any difficulty or damage to the board. The location means are on the underside of the window board when the board is fitted.

**[0009]** The fixing means are formed from any suitable material, including metal plate, and are formed with gripping elements which are from the fixing means. The number of gripping elements can be varied as can their shape and configuration. Said gripping elements are adapted to be received by and retained in the grooves or channels formed in said window board. At least one of the gripping elements may be shaped to facilitate insertion into the location means, for example corners or edges may be rounded. Said fixing means are also formed with pre-drilled holes and may be scored across its width at some point to facilitate bending or flexing. Alternatively, the fixing elements may be pre-bent.

**[0010]** During fitting of the window board, the gripping elements formed on the fixing means are placed within the grooves or channels and a simple twist brings the gripping elements of the fixing means into contact with the walls of the grooves or channels to ensure satisfactory engagement therewith such that the twist action causes the gripping element/elements to "dig into" the sides of the grooves or channels. The gripping means may be so formed such that regions of the gripping means act on the walls of the location means to assist such engagement. The number of fixing means can be adjusted depending on particular requirements. Once the fixing means are located within the grooves or channels formed in the window board, the window board is fitted into the window frame and squared of the window as previously described. The fixing means is then bent or flexed into the internal wall and fixed thereto through the pre-drilled holes in the fixing means. The wall can then be plastered or dry lined as required such that the fixing means are no longer visible

**[0011]** In an embodiment of the invention there is also provided a method of locating window boards in the re-

quired position with regard to a corresponding window frame and securing same to an interior wall. Said method comprises the steps of providing a window board being formed with location means on the underside, of providing fixing means which are adapted to be received in the location means and locating said fixing means in position within the location means. The method further comprises the step of manipulating said fixing means into the required attitude and securing same to the internal wall.

**[0012]** Embodiments of the invention will now be described by way of example with reference to the accompanying drawings in which:

Figure 1 shows a cross sectional view of the property together with a window assembly unit according to the invention;

Figure 2 shows a perspective view of the fixing means;

Figure 2A shows a side view of the fixing means;

Figure 3 shows a perspective view of the window board;

Figure 3A shows an alternative embodiment of the window board;

Figure 3B shows a still further embodiment of the window board; and

Figure 4 shows a perspective view of the fixing means in relation to the window frame and window board.

**[0013]** As shown in the drawings, the window assembly 10 is located in respect of an internal wall 12 and an external wall 14 between which is a cavity 16. The window assembly 10 comprises a window frame 18 which is formed with a groove 20. Said window frame 18 is adapted to receive a window board 22. The window board 22 is formed with a tongue 24 and the underside of the window board 22 is formed with location means 26 as shown in Figures 3, 3A and 3B. Said location means 26 are adapted to receive a fixing means 28. Said fixing means 28 comprises a plate of a suitable material formed with gripping elements 30 which are upstanding from the surface 32 of the fixing means 28. The gripping elements 30 can take any suitable form and have regions 32 which particularly assist to retain the fixing means 28 in position. The fixing means 28 is also provided with pre-formed apertures 34 to receive screws 36 or the like.

**[0014]** In use, the fixing means 28 are secured to the underside of the window board 22 by guiding the gripping elements 30 into the corresponding location means or channels 26 formed on the underside of the window

board 22 and applying a twisting action to ensure satisfactory engagement between the gripping elements 30 and the channels 26 formed in the window board 22.

**[0015]** The window board 22 is then placed in position relative to the window frame 18 by engaging the tongue 24 of the window board 22 into the corresponding groove 20 formed in the window frame 18. Once in position, the window board 22 is squared off the window and the fixing means 28 are bent or flexed into the internal wall 12 as shown in Figure 4 and fixed thereto by inserting screws 36 into the pre-drilled holes 34 in the fixing means 28. The fixing means 28 may be formed with means, such as scoring, across some or all of its width 38 to facilitate bending or flexing.

**[0016]** In the method of locating window boards 22 in the required position with regard to a corresponding window frame 18 and securing same to an interior wall 12, said method comprises the steps of providing a window board 22 being formed with location means 26 on the underside, of providing fixing means 28 which are adapted to be received in the location means 26 and the step of locating said fixing means 28 in position within the location means 26. The method further comprises the step of manipulating said fixing means 28 into the required attitude and securing same to the internal wall 12.

**[0017]** The invention provides an accurate and time saving means by which window boards can be located in the required position with regard to a corresponding window frame and secured to an internal wall in newly built properties or those which are undergoing restoration or renovation.

### Claims

1. A window assembly comprising a window frame, a window board and fastening means for securing a window board in the required position relative to a window frame and wall **characterised in that** said window board is formed with location means to receive and retain said fixing means.
2. A window assembly as described in claim 1 **characterised in that** said location means are in the form of channels or grooves formed in the window board.
3. A window assembly as described in claim 2 **characterised in that** said location means are formed in the window board prior to use.
4. A window board for use in a window assembly **characterised in that** the window board is formed with location means to receive said fixing means.
5. Fixing means for mounting a window board to an internal wall **characterised in that** said fixing

means are formed with gripping elements adapted to be received in location means formed in the window board.

6. Fixing means as described in claim 5 **characterised in that** said gripping elements are upstanding from the fixing means. 5
  
7. Fixing means as described in claim 6 **characterised in that** said fixing means are secured in the location means by means of a twisting action to engage said gripping elements with the grooves or channels formed in said window board. 10
  
8. Fixing means as described in claim 7 **characterised in that** said fixing means are provided with apertures to receive further fastening elements whereby said fastening means are secured to a wall. 15
  
9. Fixing means as described in claims 5 to 8 **characterised in that** said fixing means may be scored across all or part of its width to facilitate manipulation prior to securing to a wall. 20
  
10. A method of locating window boards in the required position with regard to a corresponding window frame and securing same to an interior wall **characterised by** the step of providing a window board being formed with location means, the step of providing fixing means which are adapted to be received in the location means and locating said fixing means in position within the location means and the step of manipulating said fixing means into the required attitude and securing same to the internal wall. 25  
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11. A method of locating window boards as described in claim 9 **characterised by** the step of securing the fixing means within the location means by the action of twisting to ensure a firm contact between gripping elements formed on the fixing means and the grooves or channels of the location means. 40

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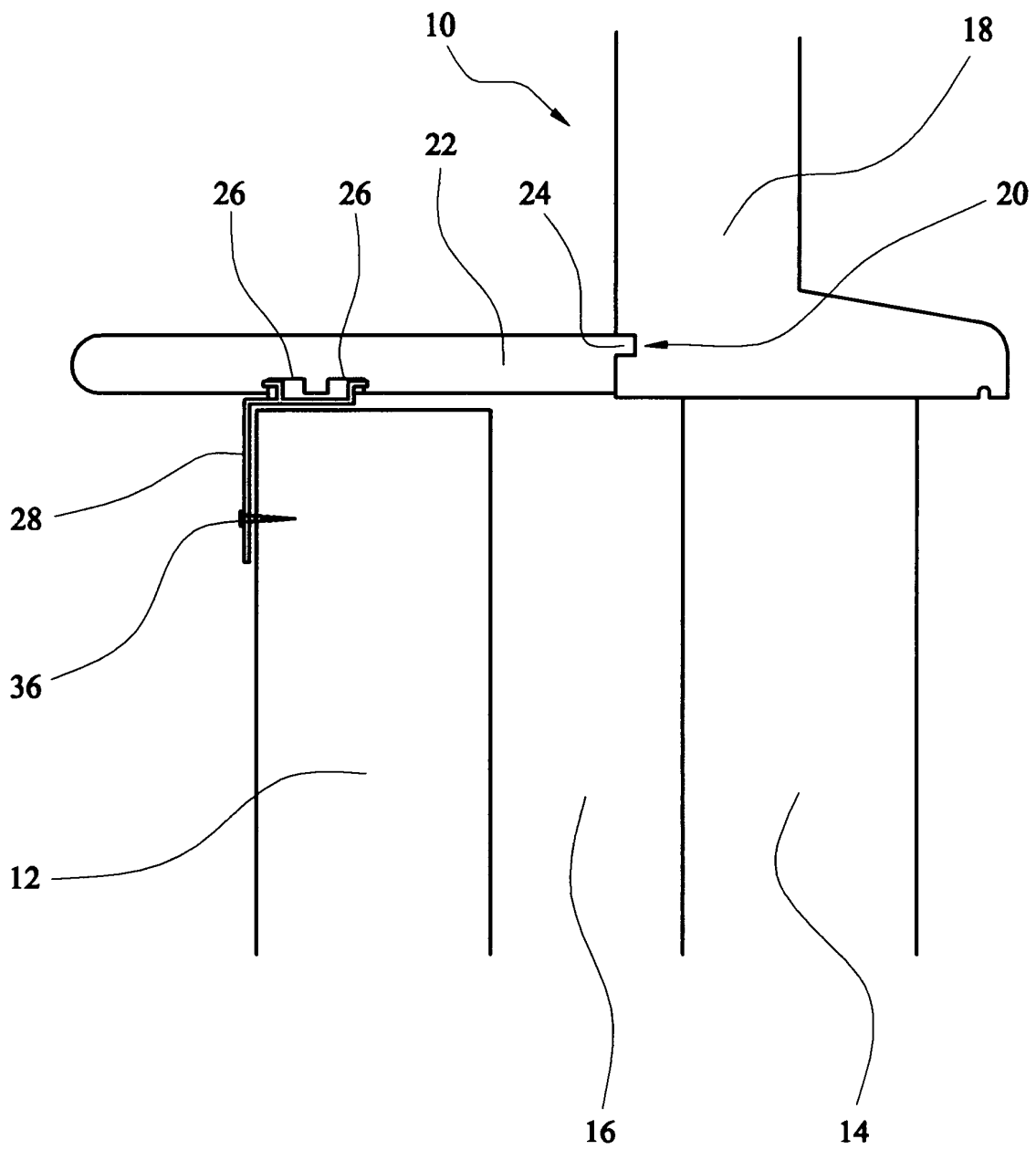


FIG. 1

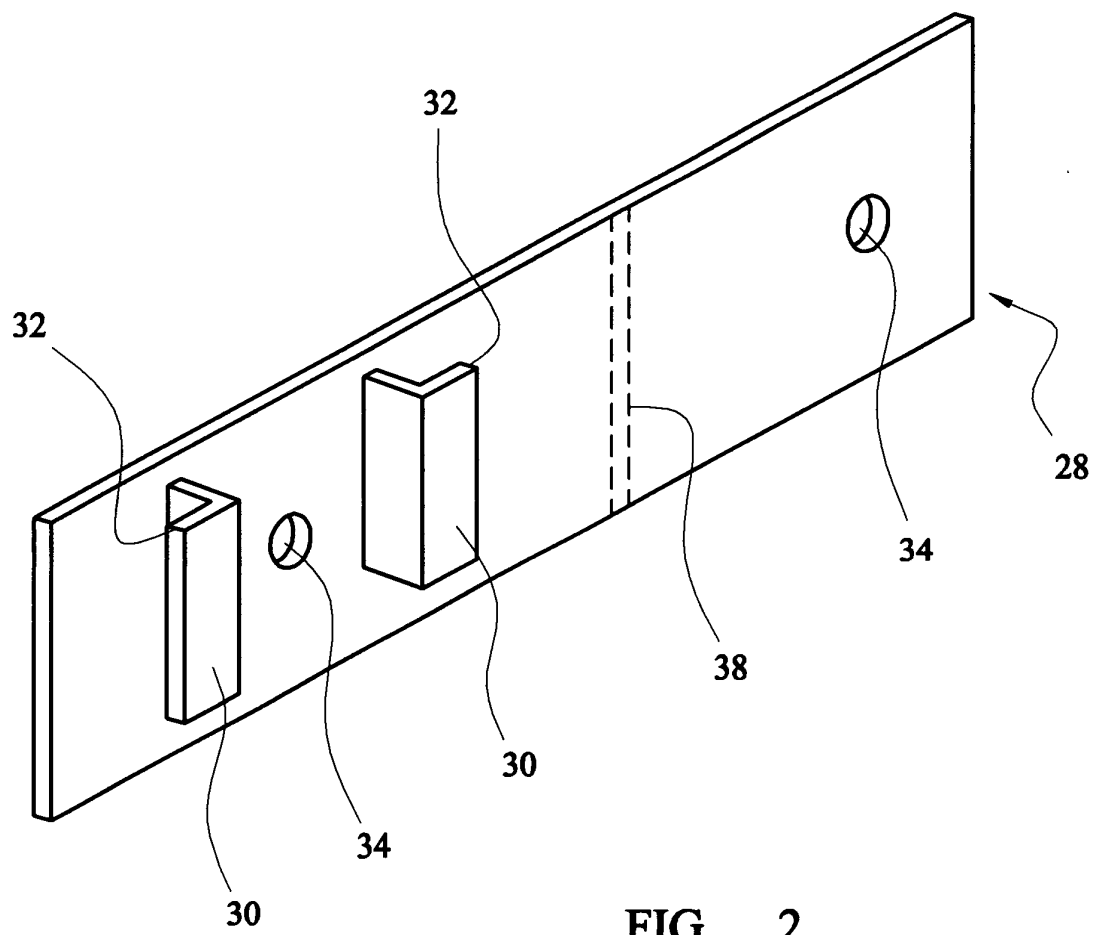


FIG. 2

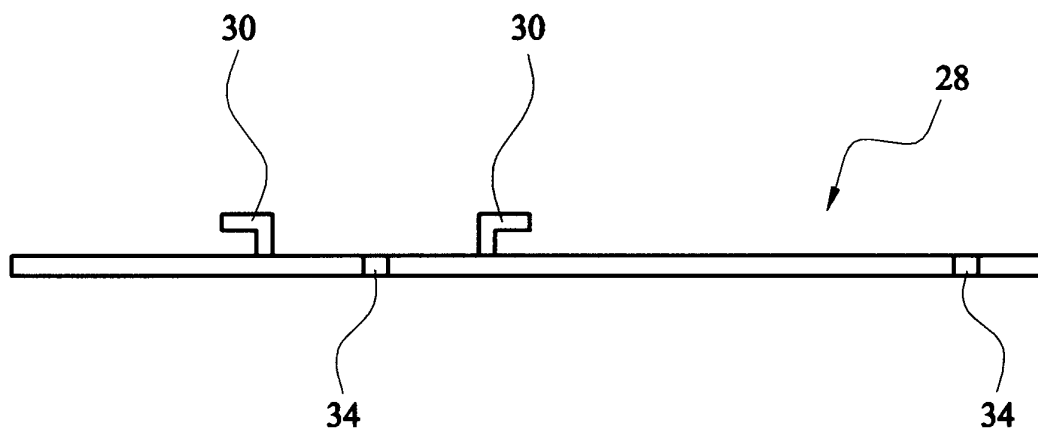


FIG. 2A

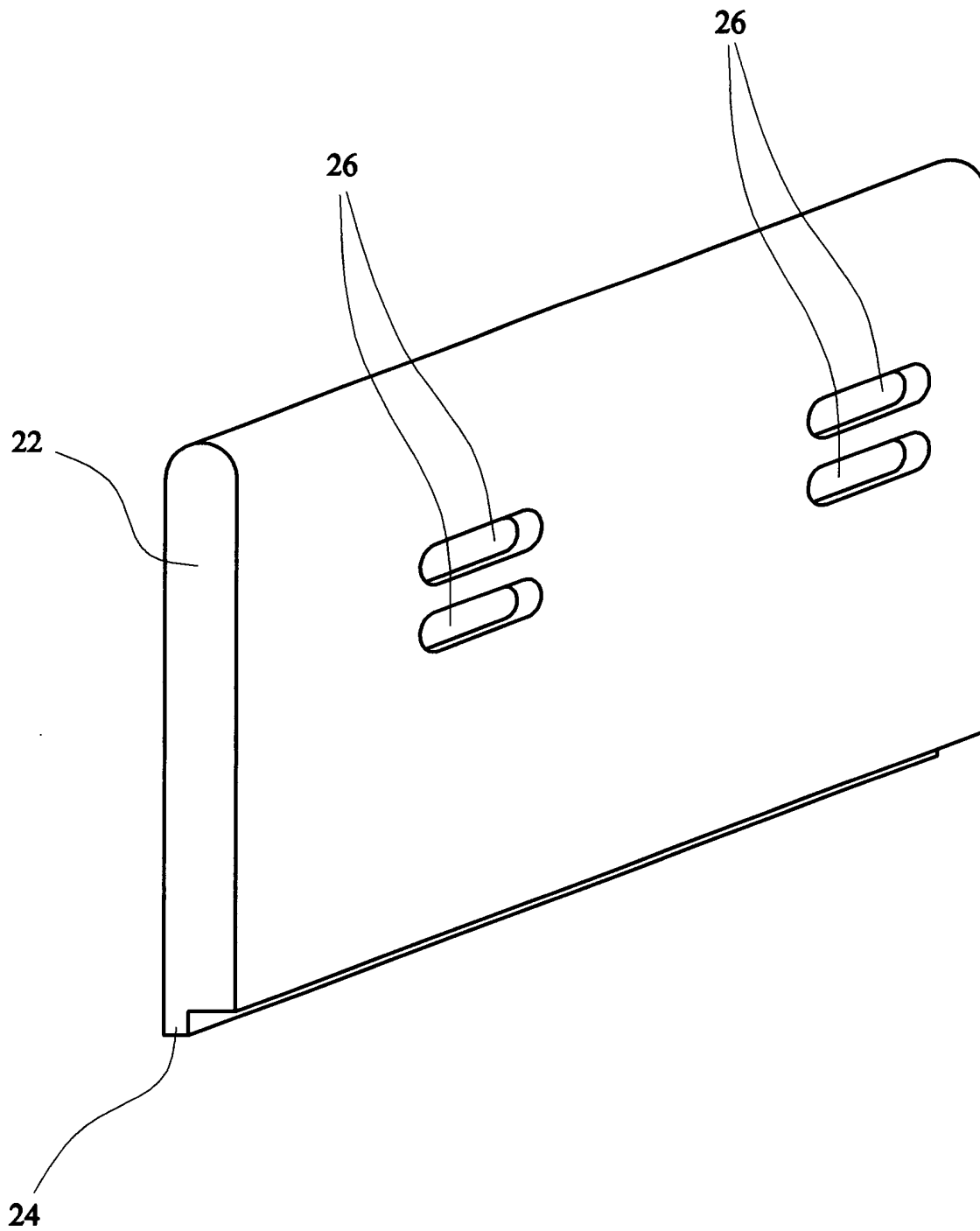


FIG. 3

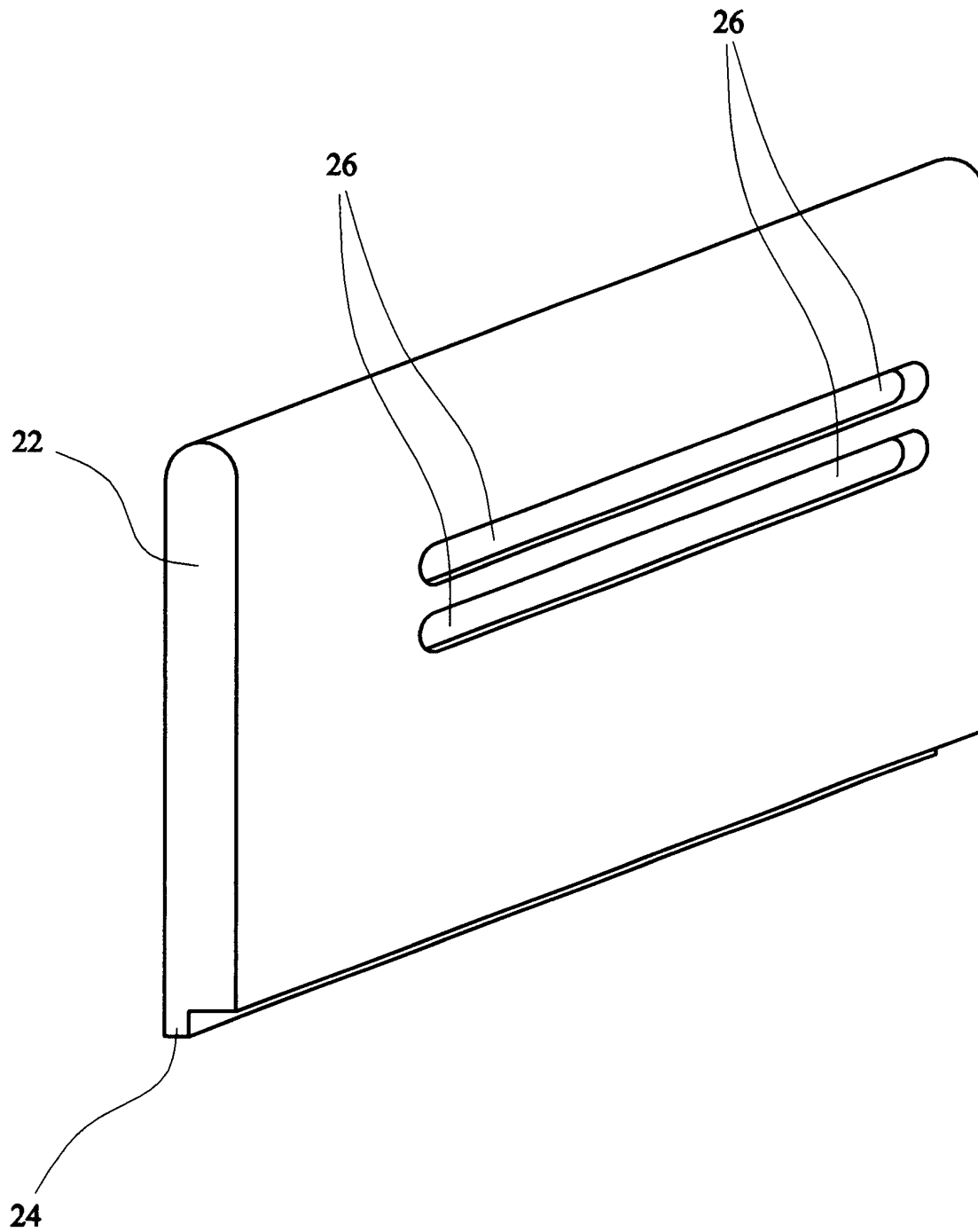


FIG. 3A



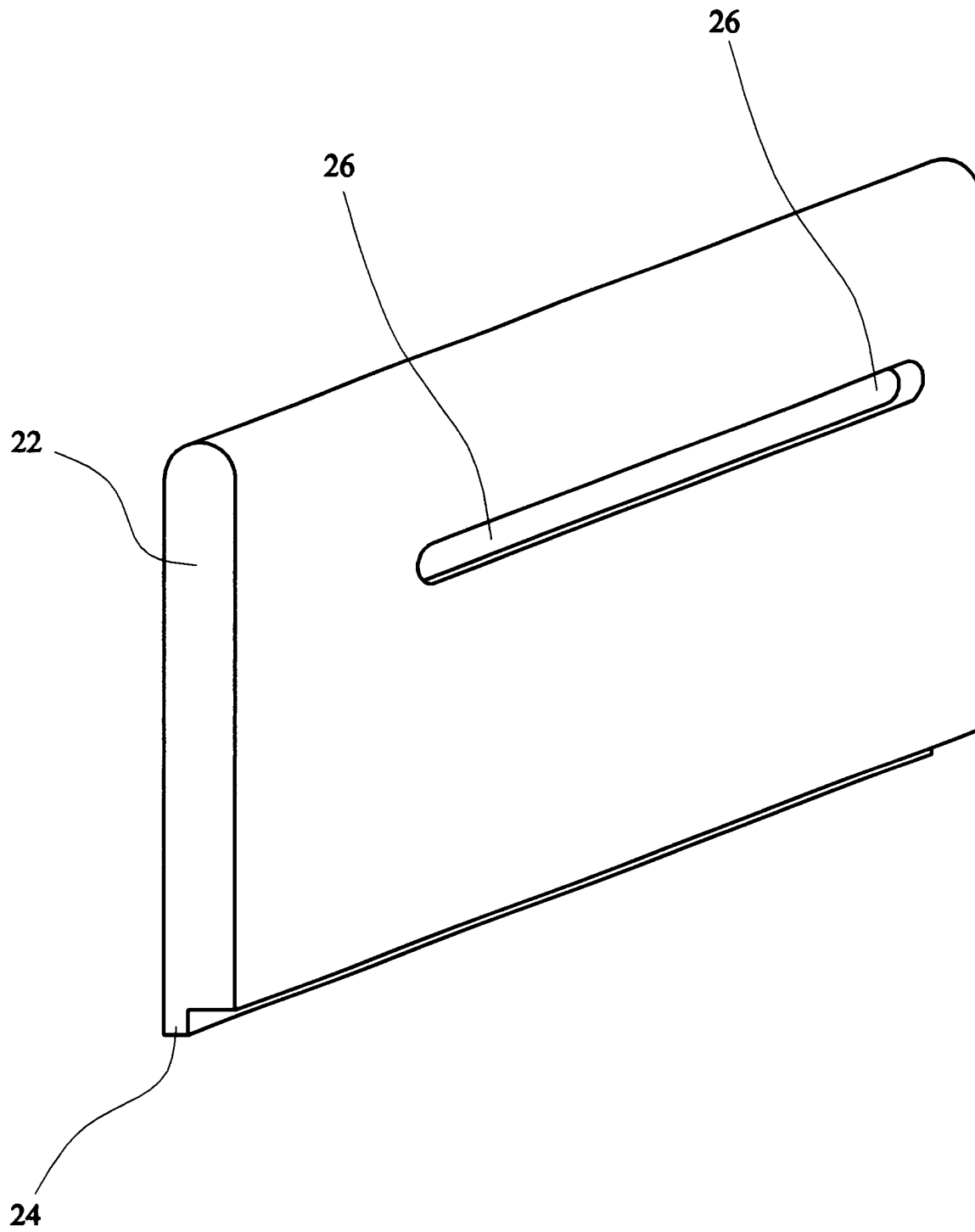


FIG. 3B

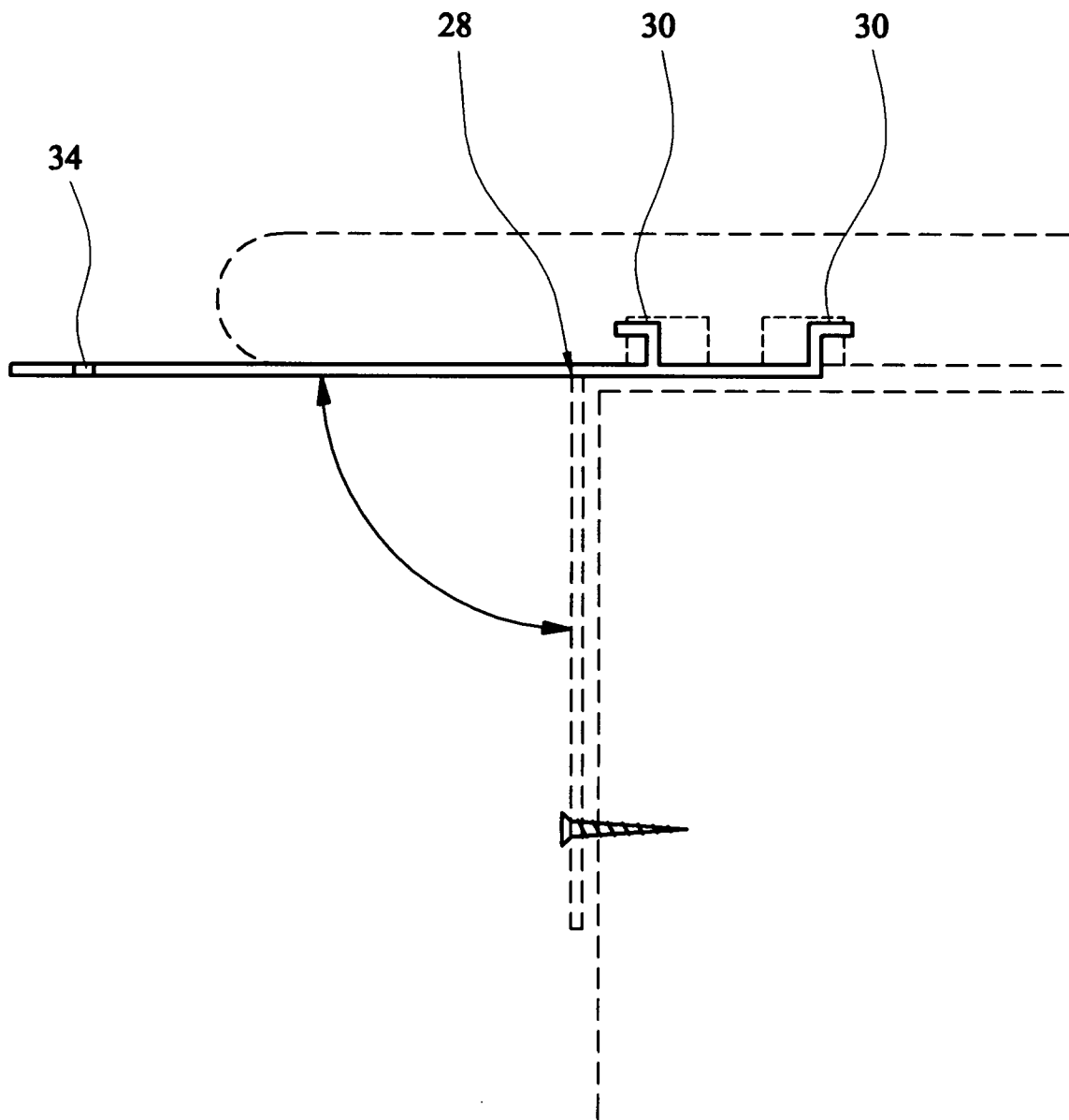


FIG. 4