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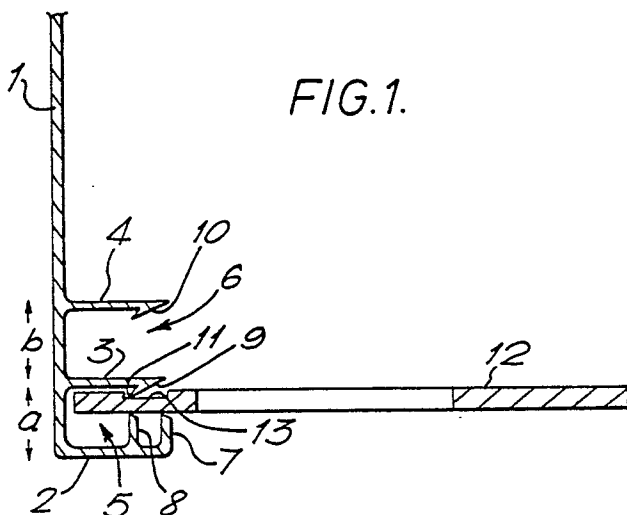
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(54) Fascia and soffit system for buildings.

(57) A fascia and soffit system for a building including an extruded fascia panel (1) for use at the eaves of a roof, having adjacent its lower edge a first longitudinally extending flange (2), a second longitudinally extending flange (3) spaced upwardly from the first so as to define a first groove (5) for receiving the edge of a soffit (12), and a third longitudinally extending flange (4) spaced upwardly from the second so as to define a second groove (6) for receiving the edge of a soffit, the spacing between the first and second flanges at least in part being substantially different from the spacing between the second and third flanges, at least one of the first and second flanges being resilient to permit variations of said spacing between them, at least one of the second and third flanges being resilient to permit variation of said spacing between them, and each of said first and second grooves being provided with interlocking means (9,10) for engagement with a soffit if desired.



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Fascia and soffit system for buildings

This invention relates to a fascia for use in conjunction with various types of soffit in the construction of buildings. In a typical roof construction for buildings such as houses, at the eaves of the roof the rafters project beyond the wall. A vertically extending fascia board is provided along the ends of the rafters and a horizontally extending soffit is provided in the space between the wall and the fascia board. Thus access to the roof space beneath the rafters is closed off, although ventilation apertures, and so forth may be provided. Traditionally, the fascia board has been of wood and the soffit has been of a suitable sheet material.

In recent years, it has become common to use fascia panels of extruded plastics material either to replace conventional wooden fascia boards or to be used over such boards. The fascia panels may even be combined with other components such as a gutter system which can be formed on the outer face of the panel. On the inner face of the fascia panel, adjacent its lower edge, is generally provided a groove for receiving the edge of the soffit. The soffit itself may now be of many different types. It may, for example, be a plain sheet of wood or of a cement based composite material. Alternatively it may comprise a series of interlocking plastics panels. The groove along the fascia panel is designed to receive, and in some cases interlock with, the particular soffit with which it is to be used.

In an attempt to reduce the number of different systems necessary the Applicant has analysed existing soffits and has now designed a fascia panel which can be used with a range of different soffits.

Thus according to the present invention there is provided an extruded fascia panel for use at the eaves of a roof, having adjacent its lower edge a first longitudinally extending flange, a second longitudinally extending flange spaced upwardly from the first so as to define a first groove for receiving the edge of a soffit, and a third longitudinally extending flange spaced upwardly from the second so as to define a second groove for receiving the edge of a soffit, the spacing between the first and second flanges at least in part being substantially different from the spacing between the second and third flanges, at least one of the first and second flanges being resilient to permit variation of said spacing between them, at least one of the second and third flanges being resilient to permit variation of said spacing between them, and each of said first and second grooves being provided with interlocking means for engagement with a soffit if desired.

The interlocking means could be in the form of

a downwardly extending projection extending adjacent the free edge of each of the second and third flanges, which can engage in a longitudinal groove in a soffit board or interlock with e.g. a flange along a plastics soffit panel.

In many applications the fascia panel can be used in the form above described. However in some cases it may be desired to remove one of the flanges. This could be done by making the flange frangible but in general it could be achieved at the manufacturing stage by extruding the fascia panel with one flange missing. In some applications the, or each, groove may not be used for soffit location but for other purposes. Preferably, one of the grooves has its minimum spacing defined by a projection extending from one of the respective flanges towards the other. This projection is generally in addition to any projection forming the interlocking means. Where the soffit is to extend perpendicularly to the fascia panel it will rest flat on the projection. However, it is possible to tilt the soffit at an angle to the fascia panel, the projection acting as a fulcrum. In such an application the projection must be sufficiently great, and must be positioned sufficiently near to the entry to the groove, to permit the desired angle of tilt. In one preferred system the projection is positioned on one flange opposite an interlocking means projection on the other. To provide an increased level of support when the soffit is used perpendicularly to the fascia panel, without excessive use of material, it may be desired to use two relatively thin projections with one spaced inwardly of the other. In a tilting arrangement in which the soffit is angled upwardly away from the fascia panel, the inner of the two projections will act as the fulcrum.

Such an arrangement of projections can be of use with single groove fascias, whether of a generally different design to that disclosed herein or resulting from elimination of one of the flanges as mentioned earlier. This disclosure encompasses all such fascia panels and of course extends to fascia panels which are parts of other units such as gutter systems.

The flanges may serve purposes other than locating soffits. For example, a flange can receive a clip which enables the fascia panel to be attached to e.g. a conventional wooden fascia board. A particularly advantageous possibility is that of using the lower groove to receive the soffit and using the third flange for attachment to a board.

There will now be described by way of example some fascia and soffit systems embodying some of the above concepts, with reference to the accompanying drawings in which:-

Figure 1 is a view of part of a first fascia and soffit system;

Figure 2 is a view of part of a second fascia and soffit system;

Figure 3 is a view of part of a third fascia and soffit system;

Figure 4 is a view of part of a fourth fascia and soffit system;

Figure 5 is a view of part of a fifth fascia and soffit system;

Figure 6 is a view of part of a modified type of fascia and soffit system; and

Figure 7 is a view of part of a further modified type of fascia and soffit system.

In Figures 1 to 5 the fascia panel 1 is the same and is a suitable length of extruded plastics such as UPVC. Along its lower edge it has a first flange 2. Spaced above this by a distance a is a second flange 3 and spaced above this by a distance b is a third flange 4. There are thus defined two grooves 5 and 6 for receiving soffits. The distance a is less than distance b , but in any event the first flange 2 is provided with two relatively thin, vertically projecting, longitudinally extending supports 7 and 8 which thus define the narrowest part of groove 5. Support 7 is at the mouth of the groove 5 and support 8 is positioned inwardly of it. In some arrangements one of the supports 7 or 8 can be omitted and this may facilitate extrusion. One preferred arrangement uses support 7 only.

Flange 3 has a downwardly projecting, longitudinally extending barb 9 along its outer edge and flange 4 has a similar barb 10. These barbs are intended to interlock with various types of soffit. Barb 9 has its point 11 disposed opposite the inner support 8 on flange 2. The flanges 3 and 4 are deflectable resiliently.

In Figure 1 a soffit 12 of rigid sheet material is received in groove 5. It extends perpendicularly to the fascia panel and rests on supports 7 and 8. It is kept in place by means of the barb 9 engaging in a longitudinally extending groove 13 in the soffit 12. The flange 3 and barb 9 will have been deflected upwardly as the soffit 12 was pushed into the groove 5 since the space between the point 11 of barb 9, and the support 8 is less than the thickness of the soffit.

In Figure 2 a soffit 14 of thicker sheet material is positioned in groove 5. In this case the resilience of flange 3 keeps the barb 9 engaged against the upper surface of the soffit 14, the lower surface resting on supports 7 and 8.

In Figure 3 there is shown a plastics soffit panel 15 engaged in the upper groove 6. Along its edge the soffit panel 15 has an interlocking region which in use can be used to interlock the panel 15 with a like panel to provide a soffit of appropriate size. The interlocking region includes an upwardly

directed portion 16 and a return portion 17. The soffit panel 15 rests flat on the upper surface of flange 3 and the free end of the portion 17 interlocks with the barb 10 of flange 4 which is deflected resiliently away from flange 3 to a certain extent.

Figure 4 shows an installation in which a soffit is inclined upwardly away from the fascia panel 1. The soffit 18 is of sheet material with a groove 19. It is received in the groove 5, resting on support 8 which acts as a fulcrum. The barb 9 is received in the groove 19 with the downwardly and outwardly facing flat part 20 of the barb engaging the bottom of the groove 19 in the soffit. The angle of this part 20 of the barb 9 can thus set the angle of the soffit. It is possible to have a tilted soffit with a fascia having only support 7, which will act as the fulcrum.

In Figure 5 there is shown a soffit 21 engaged in groove 5 in a manner identical to the arrangement of Figure 1. However flange 4 is also used, to assist in securing the fascia panel 1 to a conventional wooden fascia board 22 which will generally be part of an existing roof structure which is being modified. Thus a metal or plastic clip 23 is provided. The clip can be a short item, with a number being used, or can be a long strip. This has a groove 24 and fits over flange 4. A projection 25 cooperates with the barb 10 to locate the clip 23. A nail 26 or like fastener secures the clip 23 to the board 22. A further projection 27 is provided on the clip 23 opposite projection 25 but this is optional and need not be provided. At the upper end of the fascia panel 1 a clip 23' identical to clip 23 is used to secure this upper end to the wooden board, the clip 23' itself being attached to the board by means of a nail 28. The upper end of the fascia panel 1 is gripped between projections 25 and 27, the clip being suitably resilient. In an alternative construction the fascia panel 1 could itself have an inwardly directed flange at its upper edge which could be secured to the top of the board 22. This flange could have apertures to receive fixing nails or the like.

In Figure 6 there is shown a modified type of system. Thus a fascia panel 29 is provided which whilst in most respects is identical to that shown in Figure 5, has the third flange 4 missing. The fascia panel 29 is attached to a wooden board 30, this being achieved at its upper end by means of clip 23' as in the arrangement of Figure 5.

To the lower end of board 30 is attached a soffit 31 of rigid sheet material by means of a nail or like fastener 32. A further clip 23'', identical to clips 23' and 23 (from the arrangement of Figure 5), is then secured to the soffit 31 and board 30 by means of a further nail or like fastener 33. The lower end of the fascia panel is then secured to the

board/soffit construction by means of flange 3 engaging in the groove 24 of clip 23". The barb 9 of flange 3 interlocks with the projection 25 of clip 23".

Fig. 7 shows an arrangement similar to Figure 6, once again for adaptation of an existing wooden fascia board system. In this case, the fascia board 34 is connected to clip 23" directly by nail 33, without the intervention of a soffit. Instead, the board 34 is provided with a groove 35 extending along its length which receives a conventional soffit sheet 36 in a known manner.

Thus it can be seen that the fascia panel designs disclosed herein are capable of being used in many contexts with many different types of soffits and constructions.

Protection is sought for all of the fascia panels and systems disclosed whether specifically or in broad terms and for modifications of them. Inventive subject matter lies not only with an arrangement of two different types of groove, for receiving different types of soffit and/or for receiving soffits in different orientations and/or for providing the means of different system constructions, but also in detailed features such as the barbs, the supports, tilting arrangements, clip constructions and so forth, whether alone or in combination and whether in the context of the fascia systems specifically disclosed herein or in other contexts including contexts other than fascia and soffit systems for buildings.

Soffit systems for use with the arrangements disclosed herein could be as disclosed in the Applicant's co-pending application of even date entitled "soffit system for a building".

It is to be clearly understood that there are no particular features of the foregoing specification, or of any claims appended hereto, which are at present regarded as being essential to the performance of the present invention, and that any one or more of such features or combinations thereof may therefore be included in, added to, omitted from or deleted from any of such claims if and when amended during the prosecution of this application or in the filing or prosecution of any divisional application based thereon. Furthermore the manner in which any of such features of the specification or claims are described or defined may be amended, broadened or otherwise modified in any manner which falls within the knowledge of a person skilled in the relevant art, for example so as to encompass, either implicitly or explicitly, equivalents or generalisations thereof.

Claims

1. An extruded fascia panel (1) for use at the

eaves of a roof, having adjacent its lower edge a first longitudinally extending flange (2), a second longitudinally extending flange (3) spaced upwardly from the first so as to define a first groove (5) for receiving the edge of a soffit (12), and a third longitudinally extending flange (4) spaced upwardly from the second so as to define a second groove (6) for receiving the edge of a soffit, the spacing between the first and second flanges at least in part being substantially different from the spacing between the second and third flanges, at least one of the first and second flanges being resilient to permit variations of said spacing between them, at least one of the second and third flanges being resilient to permit variation of said spacing between them, and each of said first and second grooves being provided with interlocking means (9,10) for engagement with a soffit if desired.

2. An extruded fascia panel according to claim 1, wherein the interlocking means (9,10) is in the form of a downwardly extending projection extending adjacent the free edge of each of the second and third flanges (3,4).

3. An extruded fascia panel according to claim 1 or claim 2, wherein one of the grooves (5) has its minimum spacing defined by a projection (7,8) extending from one of the respective flanges (2) towards the other.

4. An extruded fascia panel according to claim 3, wherein the projection (7,8) is positioned on one flange (2) opposite an interlocking means projection (9) on the other.

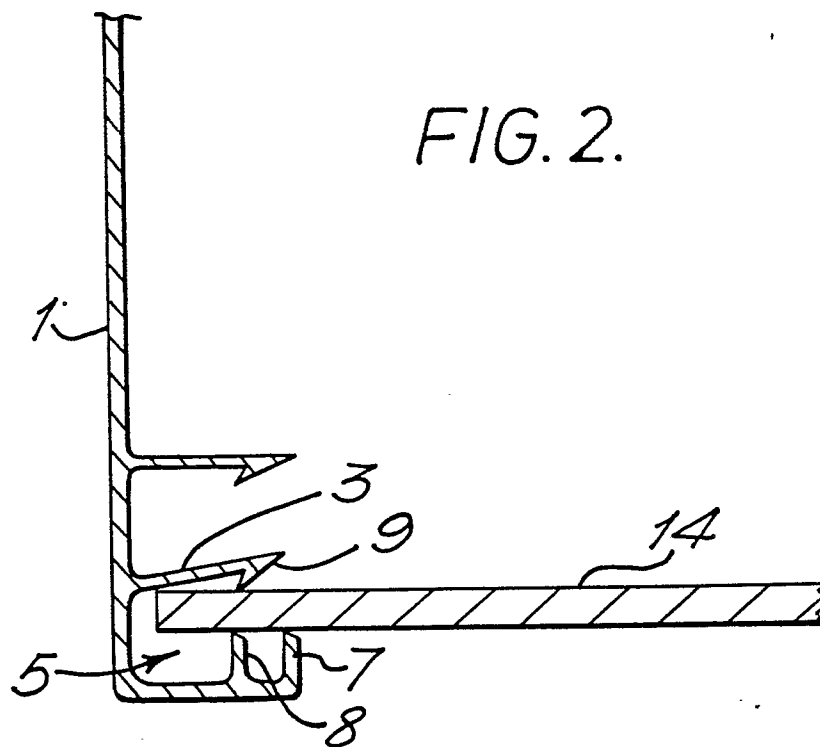
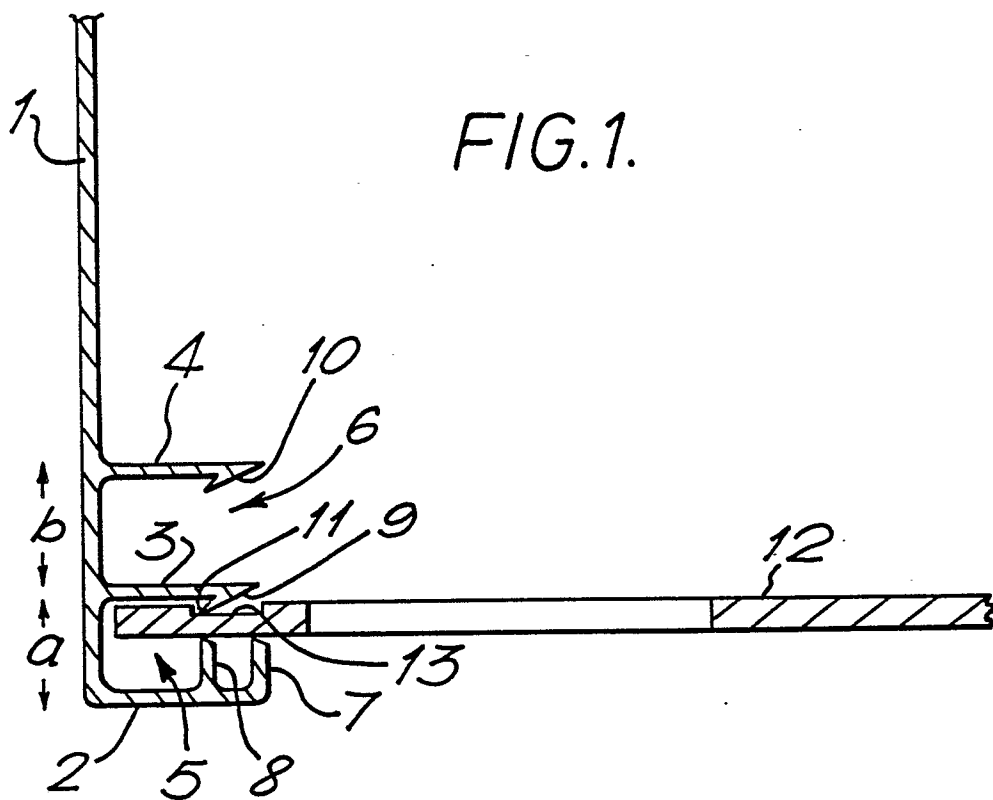


FIG. 3.

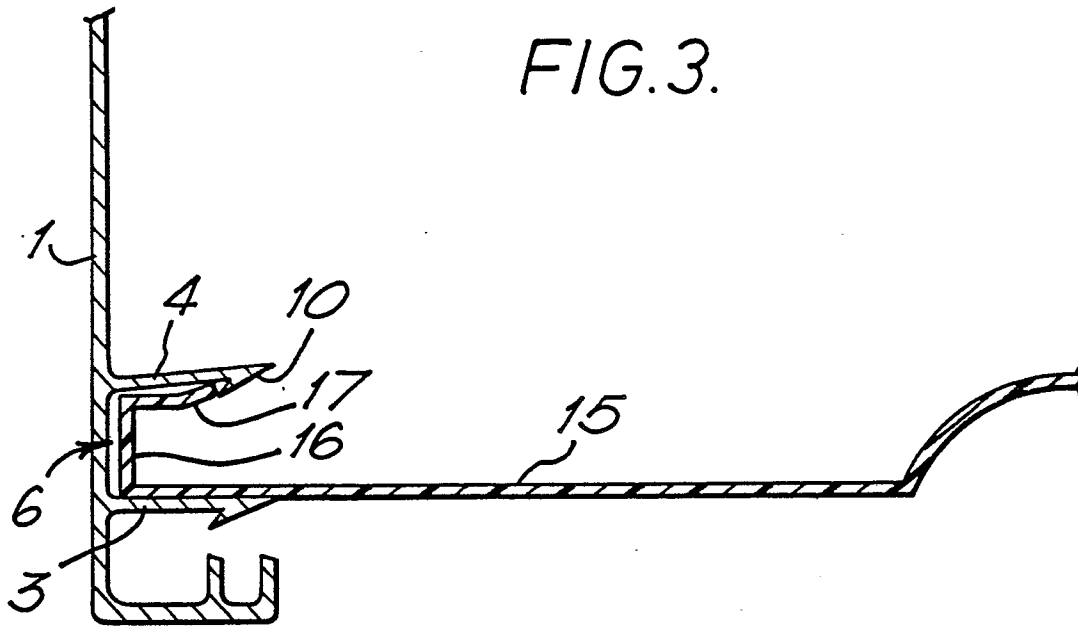
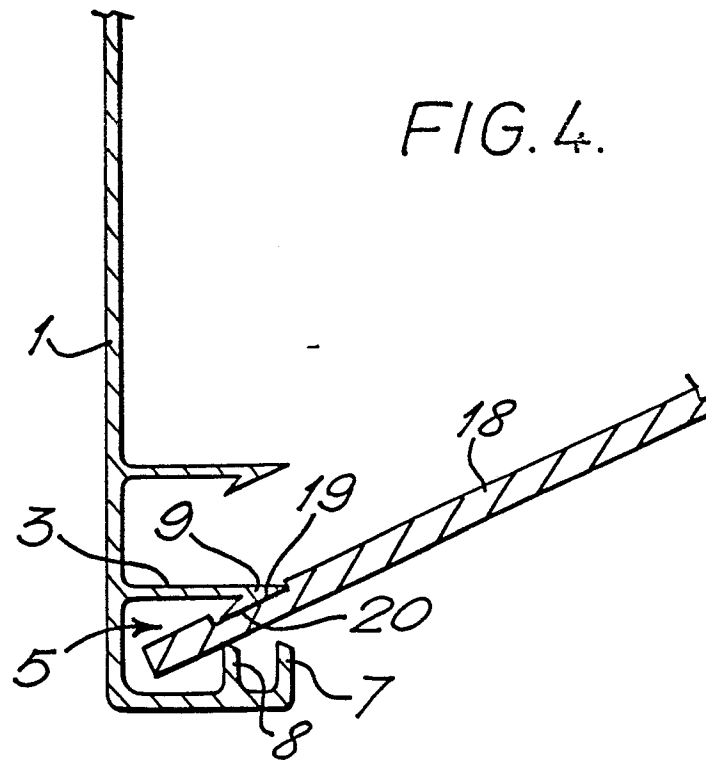
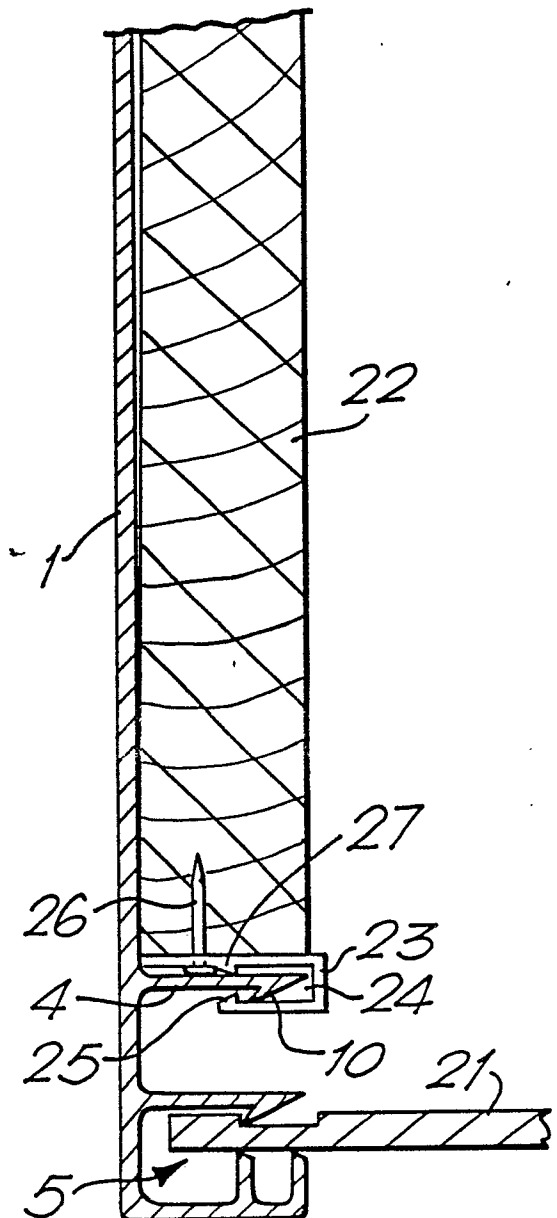
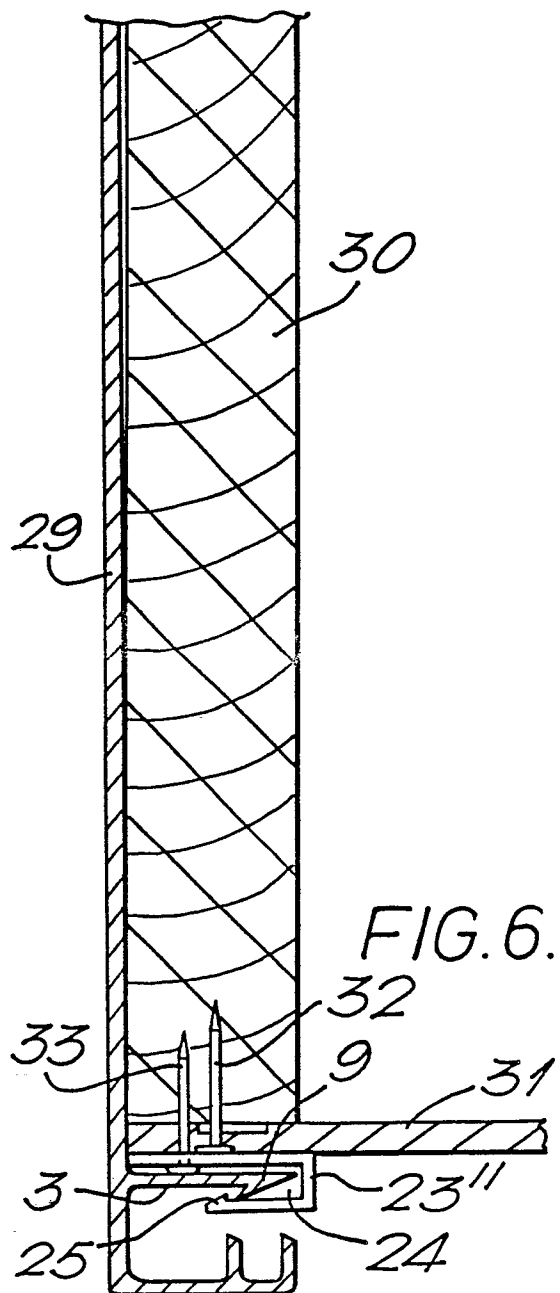
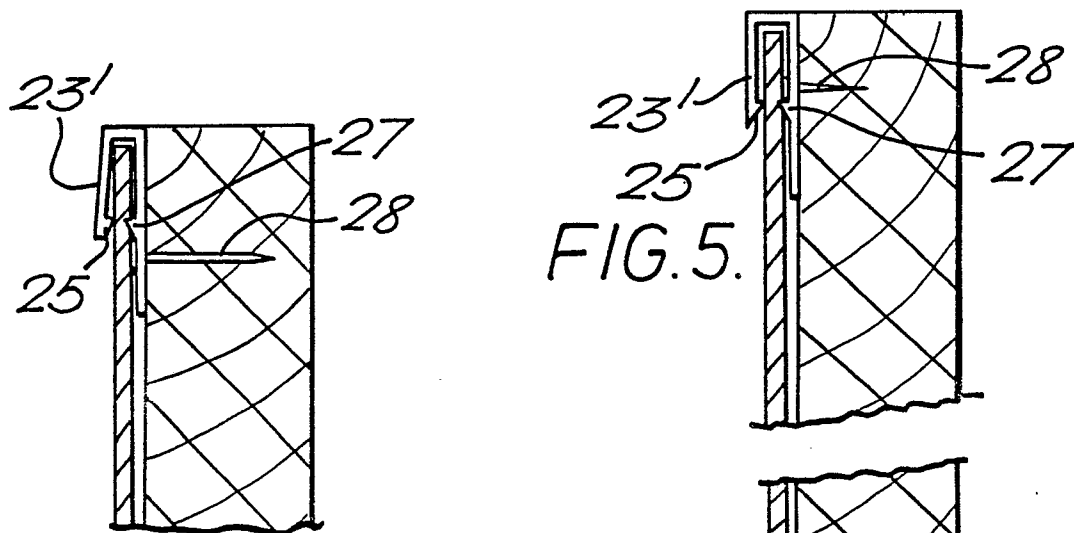
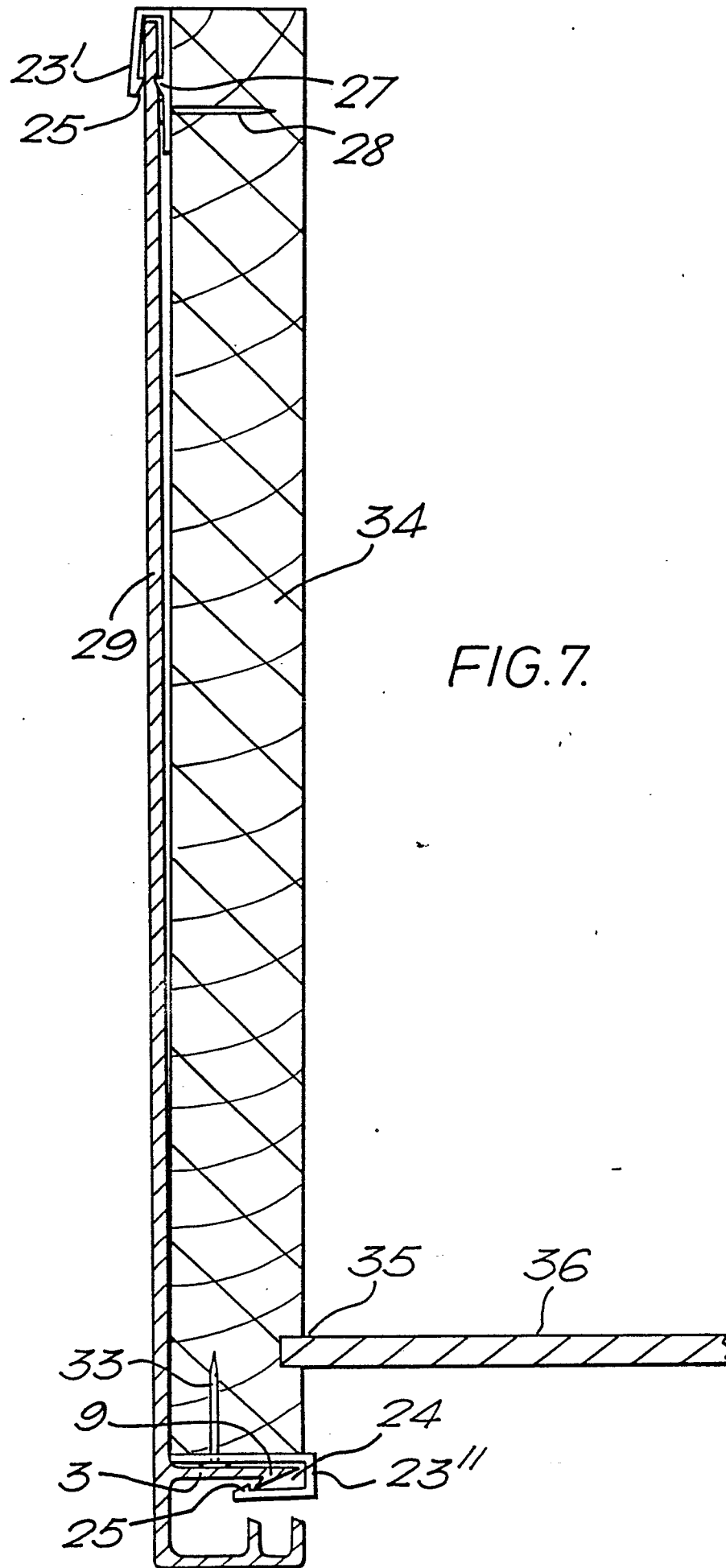


FIG. 4.









DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
A	FR-A-2 205 613 (PLASTIVAL S.A.) * Page 1, line 39 - page 2, line 36; figures 1,3,4 * ---	1	E 04 D 13/15
A	DE-U-1 893 281 (P. UHL) * Page 3, lines 14-18; figures 1,2,5 * ---	1,2	
A	US-A-3 135 070 (J.C. WARING et al.) * Claim 1; figures 4,7,12 * ---	1,2	
A	US-A-3 874 131 (J.L. WEBSTER) * Column 3, lines 5-64; figure 3 * ---	1,3	
A	WO-A-8 302 636 (MARLEY EXTRUSIONS) * Abstract; figure 1 * -----	1	
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			E 04 D
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 08-12-1989	Examiner RIGHETTI R.
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			