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(54) A window sill support assembly.

(57) A window sill support assembly (for positioning along the bottom edge of a window frame receiving aperture), comprises an external sill (1) member for supporting a bottom edge of a window frame (13), and an internal sill locating member (2) which is readily securable to the external sill member (3). The internal sill locating member is provided with an elongate formation (10). An internal sill member (17) may be readily located in a predetermined, for instance horizontal, position by cooperation of an edge of the internal sill member (17) with said elongate formation (10).

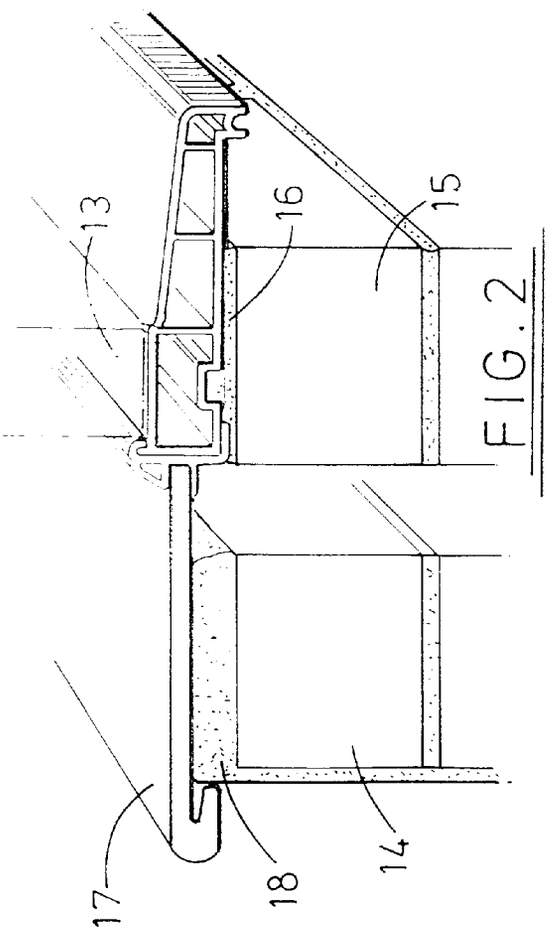

FIG. 2

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The present invention relates to a window sill support assembly, and to a window sill support member, particularly, but not exclusively, for supporting an internal window sill of a conservatory or like structure.

In the installation of a window frame within an aperture in a wall, for instance a cavity wall, the lower edge of the window frame is supported upon part of an external sill member which is itself cemented along the top of the external wall. Such external sill members may be, for instance, plastics or aluminium extrusions. If it is desired to install an internal sill this must be butted up against the internal edge of the external sill member and fixed in position using adhesive packing. Additional packing will also generally be required between the internal sill and the upper edge of the internal wall upon which it is supported.

However, it is a relatively difficult job, requiring a skilled worker, to ensure that the internal sill is correctly mated to the external sill member at the desired level along its whole length. Furthermore, it can be difficult to ensure that the internal sill remains in the correct position whilst the adhesive packing is inserted and whilst it is drying. In addition, should it be necessary to replace an existing sill the presence of the packing adds to the difficulty both of removing the existing sill and fitting a new sill.

It is an object of the present invention to obviate or mitigate the above disadvantages.

According to a first aspect of the present invention there is provided a window sill support assembly for positioning along the bottom edge of a window frame receiving aperture, comprising an external sill member for supporting a bottom edge of a window frame, and an internal sill locating member which is readily securable to the external sill member, the internal sill locating member being provided with an elongate formation whereby an internal sill member may be readily located in a predetermined position relative to the external sill by cooperation of an edge of the internal sill member with said elongate formation.

Thus installation of an internal sill is a much simplified process having regard to the prior art mentioned above. If an internal sill is to be fitted, the internal sill locating member is first fitted to the external sill member and then an edge of the internal sill is accurately positioned with respect to elongate formation channel. No further means is required to correctly locate the internal sill.

For instance, the elongate formation may be an elongate support wall (or a number of aligned but spaced apart support wall sections) against which an upper or lower surface of the internal sill may be abutted to provide for accurate location of the internal sill.

In an preferred embodiment of the invention the elongate formation is an elongate channel, whereby an internal sill member may be secured to the support assembly by insertion of an edge of the internal sill member into said channel.

The external sill member and the sill locating member are preferably extrusions.

The inner sill locating member preferably has engaging formations, preferably resilient, for engaging the external sill member. This increases the ease with which the sill locating member may be secured to the external sill member thereby further simplifying the installation of an internal sill.

For instance, the external sill member may define a protruding lip and the locating member may be provided with a hook portion for engaging said lip.

Alternatively, the sill locating member may be provided with a substantially horizontal lip extending from an upper portion thereof for engaging an upper portion of the external sill member.

The sill locating member may be provided with a substantially horizontal lip extending from a lower portion thereof for engaging a lower portion of the external sill member.

The external sill member may be provided with an elongate slot and the sill locating member may be provided with resilient formations for engaging said slot.

As a further alternative, the sill locating member may, for example, be secured to the external sill member using adhesive or by screwing or bolting.

According to a second aspect of the present invention, there is provided an internal window sill locating member for locating an internal window sill in a predetermined position relative to an external sill member, said external sill member in use defining a bottom edge of a window frame, wherein said internal sill locating member is elongate and readily securable to the external sill member, and defines an elongate formation for cooperation with an edge of the internal sill so as to enable accurate location of the internal sill in said predetermined position.

Typically the predetermined position will be a horizontal disposition.

The elongate formation may be a channel or an elongate wall member as described above.

The sill locating member may be adapted for use with existing external sill members and thus can be fitted to such an existing external sill member if and when it is desired to fit an internal sill.

Preferably the sill locating member is an extrusion.

Preferably the sill locating member is provided with engagement formations, such as a resilient hook formation, for engaging the external sill member. Alternatively, the sill locating member may, for example, be secured to the external sill member using adhesive or by screwing or bolting.

The sill locating member may have any configuration defined above in relation to the first aspect of the present invention.

According to a third aspect of the present invention there is provided a window sill support assembly

comprising an external sill member which in use defines a bottom edge of a window frame, wherein said external sill member is an extrusion and defines an elongate formation whereby an internal sill can be readily located in a predetermined position relative to the external sill member by cooperation of an edge of the internal sill with said elongate formation.

With this assembly a separate internal sill locating member is not required.

An elongate channel filling member, which may be an extrusion, may be provided where the elongate formation is a channel for blocking off the channel when the external sill member is not required to support an internal sill. Thus the sill support assembly can be used even in circumstances where an internal sill is not required.

Specific embodiments of the present invention will now be described, by way of example, with reference to the accompanying drawings, in which:

Fig. 1 is a perspective view of a window sill support assembly in accordance with the present invention;

Fig. 2 is a cross-section of the assembly of Fig. 1 in use;

Fig. 3 is a cross section of second window sill support assembly in accordance with the present invention; and

Fig. 4 is a cross section of a further window sill support assembly in accordance with the present invention.

Referring to Fig. 1, the illustrated sill support assembly comprises two components: an external sill member 1 and an internal sill support member 2.

The external sill 1 is an extrusion of standard cross-section and comprises an upper wall which defines a sill portion 3 and a window frame support ledge 4, an internal vertical end wall 5 and a lower wall 6. The end wall 5 extends a short distance beyond the support ledge 4 so as to define a vertically upstanding lip 7 which extends along the length of the sill 1.

The internal sill support member 2, which is also an extrusion, comprises a vertical wall 8 which has two spaced apart and parallel walls 9 extending perpendicularly from one surface defining a channel 10 therebetween. A lower perpendicular lip 11 and an upper hook portion 12 extend from the other surface of the vertical wall 8 at it's bottom and top edges respectively and extend along it's whole length.

The inner sill support member 2 is adapted to engage the outer sill in the following manner: the hook portion 12 is hooked over the lip 7 of the outer sill and the lip 11 of the support member is located under, and in contact with, the lower wall 6 of the outer sill, so that the wall 8 of the support member abuts against the wall 5 of the outer sill.

Fig. 2 illustrates the assembly of Fig. 1 in use in conjunction with a window frame 13 (shown in dotted lines) which is fitted in an aperture in a cavity wall having internal and external walls 14 and 15 respectively. The outer sill 1 and inner sill support member 2 are first cut to the required length and then fitted together in the manner described above. No further fixing is necessary to secure the inner sill support member 2 to the outer sill 1. The outer sill 1 is then fitted along the top of the external wall 15 upon a layer of cement 16 which secures it in place. The window frame 13 is then fitted in position with it's bottom edge resting on the support ledge 4 of the outer sill 1.

An inner sill 17 is then cut to the desired length and is slotted within the channel 11 of the support member 2. No adhesive packing or other such securing means is required to fix the inner sill 17 to the support member 2 and thus to the outer sill 1. To complete the installation, the space between the under surface of the inner sill 17 and the upper surface of the internal wall 14 is filled with plaster 18 when the outer surface of the wall 14 is itself plastered.

It will thus be appreciated from the above description that the installation of an inner widow sill is greatly simplified, with respect to prior art installation methods, through use of the sill support assembly of the present invention. The inner sill 17 is readily fixed in the desired position by virtue of the support member, and remains in the desired position throughout the remainder of the installation procedure.

In the case of the above described embodiment of the invention the hook portion 12 of the inner sill support member 2 is specifically adapted for use with the known form of outer sill 1 illustrated. It will, however, be appreciated that the inner sill support member 2 could be formed with whatever engagement formations are necessary to complement any given form of outer sill. For instance, referring to Fig. 3, this shows a modified outer sill 19 and inner sill support member 20. The outer sill 19 has a slot formed in it's internal end wall, and which runs along it's length, to receive resilient clip means 22 provided along the length of the support member 20.

As an alternative specially adapted engagement formations could be dispensed with altogether and the support member could simply be glued or screwed to the external sill member. For instance, the support member could be provided with an adhesive strip for fixing to an end face of the external support member.

It will be appreciated that the same form of external sill member can be used regardless of whether or not an internal sill is to be fitted. If an internal sill is not required then a support member will simply not be fitted to the external sill member.

A further alternative embodiment of the present invention is shown in Fig. 4. With this embodiment a modified external sill member 23 is itself formed with a channel 24 to receive an inner sill and thus an inner sill support member is not required. The external sill member 23 may still be used even if an internal sill is

not required. In this case, for aesthetic reasons, the channel 24 could be filled with any suitable elongate member (not shown) for instance a simple extrusion or a length of wooden beading.

It will be appreciated that the detailed structure of the various components of the abovedescribed window sill support assembly may be varied considerably. For instance, in place of the channel 10 the extrusion 2 could be simply provided with an elongate wall member against which the edge of the internal sill 17 may be abutted. For example, the lower wall 9 could simply be omitted.

It will be understood that the extrusion 2 could be supplied separately from the other components of the window support assembly and indeed could be adapted for use with known external and internal sill members.

Claims

1. A window sill support assembly for positioning along the bottom edge of a window frame receiving aperture, comprising an external sill member for supporting a bottom edge of a window frame, and an internal sill locating member which is readily securable to the external sill member, the internal sill locating member being provided with an elongate formation whereby an internal sill member may be readily located in a predetermined position relative to the external sill by cooperation of an edge of the internal sill member with said elongate formation.

2. A window sill support member according to claim 1, wherein the elongate formation is an elongate wall against which an upper or lower surface of the internal sill may be located.

3. A window sill support member according to claim 1, wherein said elongate formation is an elongate channel whereby the internal sill member may be located in said predetermined position by insertion of an edge of the internal sill member into said channel.

4. A window sill support member according to any preceding claim, wherein the external sill member is an extrusion.

5. A window sill support assembly according to any preceding claim, wherein the internal sill locating member is an extrusion.

6. A window sill support assembly according to any preceding claim, wherein the internal sill locating member is securable to the external sill using adhesive.

7. A window sill support member according to any preceding claim, wherein the internal sill locating member may be screwed or bolted to the external sill member.

8. A window sill support assembly according to any preceding claim, wherein the internal sill locating member has resilient formations for engaging the external sill member.

9. A window sill support assembly according to any preceding claim, wherein the external sill member defines a protruding lip and the internal sill locating member is provided with a hook portion for engaging said lip.

10. A window sill support assembly according to any preceding claim, wherein the internal sill locating member is provided with a substantially horizontal lip extending from an upper portion thereof for engaging an upper portion of the external sill member.

11. A window sill support assembly according to any preceding claim, wherein the internal sill locating member is provided with a substantially horizontal lip extending from a lower portion thereof for engaging a lower portion of the external sill member.

12. A window sill support assembly according to any preceding claim, wherein the external sill member is provided with an elongate slot and the internal sill locating member is provided with resilient formations for engaging said slot.

13. An internal window sill locating member for locating an internal window sill in a predetermined position relative to an external sill member, said external sill member in use defining a bottom edge of a window frame, wherein said sill locating member is elongate and readily securable to the external sill member, and defines an elongate formation for cooperation with an edge of the internal sill so as to enable accurate location of the internal sill in said predetermined position.

14. An internal window sill locating member according to claim 13, wherein said elongate formation is an elongate wall against which an upper or a lower surface of the internal sill may be located.

15. An internal window sill locating member according to claim 13, wherein said elongate formation is an elongate channel whereby the internal sill member may be secured to the sill locating member by insertion of an edge of the internal sill member into said channel.

16. An internal window sill locating member according to any one of claims 13 to 15, wherein the sill locating member is an extrusion.

17. A window sill support member according to claim 11 or claim 12, wherein the sill support member is securable to the external sill member using adhesive.

18. An internal window sill locating member according to any one of claims 13 to 17, wherein the sill locating member may be screwed or bolted to the external sill member.

19. An internal window sill locating member according to any one of claims 13 to 18, wherein the sill locating member is provided with engagement formations for engaging the external sill member.

20. An internal window sill locating member according to claim 19, wherein said engagement formations are resilient.

21. An internal window sill locating member according to claim 19 or claim 20, wherein said engagement formations comprise an elongate hook formation.

22. An internal window sill locating member according to claim 19 or claim 20, wherein said engagement formations comprise a substantially horizontal lip extending from an upper portion of the sill locating member for engaging an upper portion of the external sill member.

23. An internal window sill locating member according to any one of claims 19 to 22, wherein said engagement formations comprise a substantially horizontal lip extending from a lower portion of the sill locating member for engaging a lower portion of the external sill member.

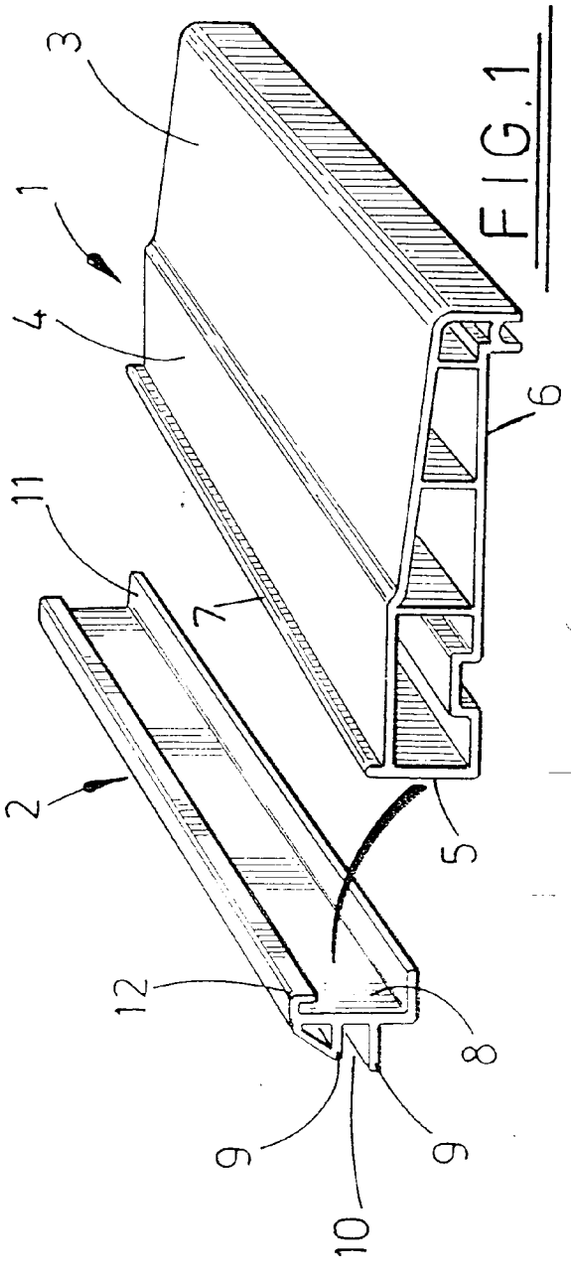

FIG.1

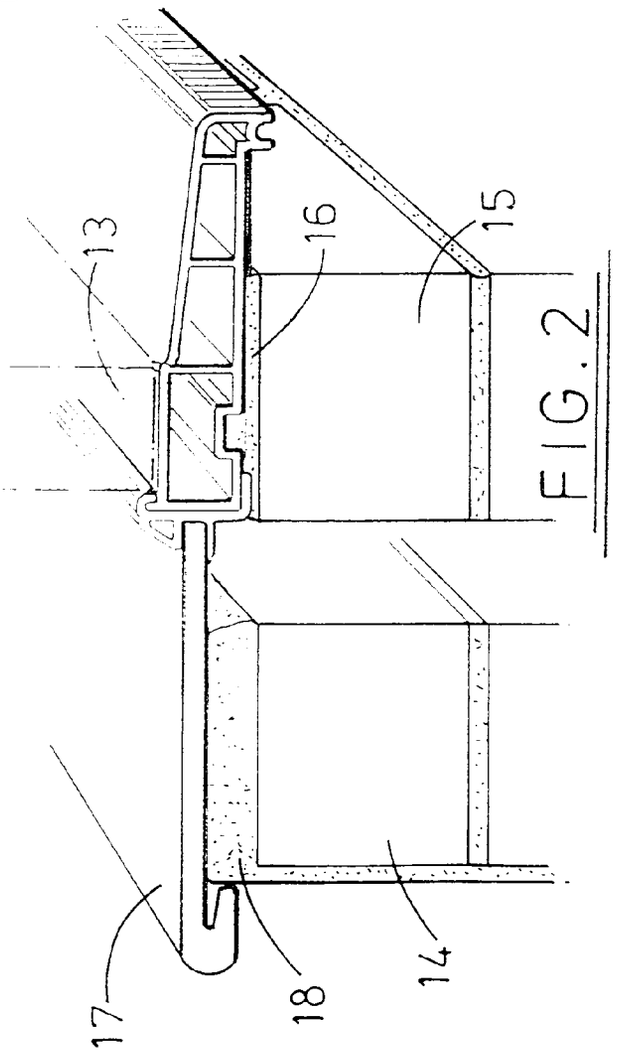

FIG.2

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EUROPEAN SEARCH REPORT

Application Number
EP 94 30 4377

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)
X Y	US-A-3 138 230 (PUTO) * column 2, line 69 - column 4, line 3; figures 6-11 * ---	1-3,7, 13-15, 18,19 8,11,12, 20,23	E06B1/70
X	DE-A-26 21 458 (YOSHIDA KOGYO) * page 9, paragraph 5 - page 13, paragraph 1; figures * ---	1,2,4,5, 7,9,10, 13,14, 16,18, 19,21,22	
X	GB-A-1 557 413 (YOSHIDA KOGYO) * page 2, line 8 - page 3, line 19; figures * ---	1,2,4,5, 7,9,13, 14,16, 18,19,21	
X	DE-A-17 84 416 (HACK) * page 4, paragraph 3 - page 5, paragraph 3 * * claims 1-6,9 * * figures 5,6 * ---	1,2,7, 11,13, 14,18, 19,23	TECHNICAL FIELDS SEARCHED (Int.Cl.5) E06B
Y A	DE-U-90 15 478 (BUG-ALUTECHNIK) * page 6, paragraph 4 - page 10, paragraph 3; claim 15; figures * --- -/--	8,11,12, 20,23 1-3,5, 13-16	

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	28 September 1994	Depoorter, F

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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D : document cited in the application
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EUROPEAN SEARCH REPORT

Application Number
EP 94 30 4377

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-2 201 390 (REUSCHENBACH) * page 3, line 1 - line 6 * * claims 1-5 * * figure *	1,2,4,5, 13,14,16	
A	DE-A-15 09 416 (HACK) * page 2, paragraph 13 - page 4, paragraph 2; figures *	1-3,7,9, 11, 13-15, 18,19, 21,23	
A	GB-A-1 455 867 (SMITH)		
A	CH-A-443 623 (MEYER)		
			TECHNICAL FIELDS SEARCHED (Int.Cl.5)

The present search report has been drawn up for all claims

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