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(54) SHEET FLASHING FOR ROOF WINDOWS AND METHOD FOR FLASHING A ROOF PENETRATING BUILDING STRUCTURE

BLECH-ABWEISERINNE FÜR DACHFENSTER UND VERFAHREN ZUM ANBRINGEN EINER DERARTIGEN BLECH-ABWEISERINNE AN EINER EIN DACH DURCHDRINGENDEN BAUSTRUKTUR

RECOUVREMENT DE SOLIN POUR TABATIERES ET PROCEDE DE MONTAGE D'UN TEL SOLIN DANS UNE STRUCTURE DE CONSTRUCTION PENETRANT UN TOIT

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Description

[0001] The present invention relates to sheet flashing members for frame structures of roof windows or similar roof penetrating building structures as well as to a kit comprising such sheet flashing members, a sheet flashing assembly and a method of flashing a roof penetrating building structure using such a sheet flashing member.

[0002] When flashing roof penetrating building structures, for example chimneys or frame structures for roof windows, in order to protect them from the weather and to provide a seal between the structure itself and the roof, it is common to use flashing covers of sheet metal, for instance aluminium, copper, steel, or zinc. Conventionally, such flashing covers have been manufactured by ordinary tin man work from a plane sheet material, which is profiled and formed to make a fit at the desired location.

[0003] The comparatively costly adjustment and assembly work on location, which is required when using this conventional craftsmanship, may be avoided by use of pre-manufactured flashing members. When these flashing members are used with, for example, a standard window type mounted in a given roof surface, it is possible to use the same standard flashing members regardless of, for example, the slope of an inclined roof surface.

[0004] Typically, a flashing assembly adapted to be used between, for example, a roof window and a sloping roof surface comprises upper and lower flashing members adapted to be mounted in a horizontal position between the roof surface and the upper and lower frame portions of the window, respectively, as well as first and second side flashing members adapted to be mounted in a sloping position between the two side frame portions of the window and the roof surface. Such a flashing assembly further comprises corner segments adapted to provide a seal between the side flashings and the upper and lower flashings, such corner segments often being integrated in either the upper and lower flashing members or the side flashing members.

[0005] Although the upper and lower flashing members essentially serve the same purpose of providing a seal between the roof window frame and the surrounding sloping roof surface, the two flashing members are adapted to fulfil their function in two rather distinct ways. The upper flashing member is normally formed as a gutter-like member with a flange adapted to be mounted on the upper window frame portion and a sheet portion adapted to be mounted under the roof surface. When water flows down the sloping roof surface and onto the upper flashing member, the gutter directs the water outwards towards the side flashing members, which are also gutter-like.

[0006] In contrast, the lower flashing member is adapted to provide a seal between the lower window frame portion and the upper surface of the roof such that water entering the space between the window and the roof is directed outwards and/or downwards onto the outer surface of the roof. To serve this purpose, a typical lower flashing member comprises a rail element and a skirt

element. The rail element is attached to the skirt along an edge thereof and serves as a connecting element between the skirt and, for example, the lower frame portion of a window installed in an inclined roof. The skirt may be a simple sheet member, which can be mounted on top of a substantially planar roof surface, however, for use on roof surfaces in the form of undulated tiles with very deep troughs, skirts are used which can be manually deformed or stretched during mounting to enable a good fit between the flashing and roofing. Traditionally such skirts have been made of lead, however, in recent years, lead-free skirts have been developed which are typically of a sandwich construction and which may be of wave-corrugated and pleated designs.

[0007] Some types of flashing members are, however, not standard as they are dependent upon, for example, whether a single window is mounted in a roof surface or whether two or more windows are mounted in neighbouring relationship, e.g. side by side or one above another. In the latter case one or more special flashing members are used to provide a seal between two neighbouring windows, the flashing member being adapted to span the width between two windows, to be connected directly to each other, or to be connected by additional flashing members, which are adapted to create a seal between two neighbouring flashing members.

[0008] DK-B-154 099 and document US-A-4 543 753 of the same patent family disclose a connecting flashing specifically adapted for mounting between two neighbouring windows, one being arranged above the other. As can be seen from Fig. 7 of this document, the connecting flashing is adapted to engage only those surfaces of the upper and lower window frame being perpendicular to the roof surface, the corresponding portions of the window frames, that are parallel to the roof surface, being covered by an additional edge flashing portion in an overlapping fashion (not shown in the figure). Thus the flashing of the space between the windows takes at least two separate flashing portions leading to high production and storage costs, the possibility of wrongful mounting, and possible leaks at the joints between the flashing portions. Furthermore, the connecting flashing is a special flashing that can be used only in the space between windows mounted at a predetermined distance above each other, thus necessitating a large number of different flashing items being held on stock.

[0009] Another example of a flashing assembly for use with a group of roof windows mounted in a 2x3 configuration is known from FR-A-2 473 595. In this case the assembly consists of a series of frames of fixed size each designed to surround a single window.

[0010] Having regard to the problems discussed above, the object of the present invention is to provide sheet flashing members which enable roof flashings to be provided in an economical and efficient way.

[0011] When, in the context of the present application, the terms "upper" and "lower" are used, they refer to structures in their mounted state. The term "roof window"

is used only as an example of a roof penetrating building structure.

[0012] According to the present invention, a combined sheet flashing member is provided which may be used either as a connecting flashing element between a pair of upper and lower neighbouring roof windows, or, when separated appropriately, as both an upper flashing member between a roof window and the neighbouring roof surface and as a lower flashing member between a roof window and the roof surface. More specifically, such a sheet flashing member comprises a first sheet portion adapted to engage an outer surface of a first frame portion, a second opposed sheet portion adapted to engage an outer surface of a second frame portion, the first and second sheet portions forming a longitudinal gutter-like flashing member, separation means is provided between the first and second sheet portions allowing them to be separated into two separate flashings corresponding to a predetermined configuration, the sheet flashing member can thereby be used for flashing a top and a bottom of the first or the second roof penetrating structure in the form of a first and a second window, as well as a space between the first and the second windows, the windows being arranged one above the other.

[0013] Preferably, the separation means is arranged generally in parallel with the general longitudinal orientation of the sheet flashing member, as this arrangement will give a practical as well as aesthetically agreeable separation of the flashing member.

[0014] The present invention is based on the realisation that a unitary (or combined) dual-purpose flashing member can be provided by incorporating means, which allows it to be easily and securely adapted for a selected purpose. Thus the same member can be used for flashing the top and bottom of a single window as well as the space between two windows being arranged one above the other, meaning that a new window can be arranged above an existing window without the need to discard the existing flashing, as it can be used in combination with the new one, and that, when ordering a window, it is not necessary to know whether the window is to be used alone or in combination or configuration with other windows.

[0015] Although it may be possible to adapt a given standard flashing member for a desired purpose by using conventional craftsmanship, the scope of the present invention is to allow such an adaptation by merely selecting one of two different configurations for the flashing member, i.e. as a combined flashing between two neighbouring windows or as separate upper and lower flashings. By the term "selecting" is meant that the non-skilled or the "do-it-yourself" person will be able to easily and fail proof modify the unitary flashing for the desired purpose.

[0016] Correspondingly, the present invention provides a solution to the above problem, which allows the user to easily identify which operation is to be performed and subsequently to perform the modification with a minimum of traditional skill, yet providing the desired result.

[0017] In a preferred embodiment, the present invention provides a separation-aid by which a sheet material, e.g. a metal, can be divided along a predefined line with a minimum of effort and with a maximum of precision.

5 The separation-aid is in the form of a pattern indicating one or more lines along which the sheet material is to be separated, however, the pattern itself does not have to be in the form of lines.

[0018] Such a separation-aid may be in the form of a groove provided between the first and second sheet portions and arranged along the length thereof. It is to be noted that the groove is not to be understood as, for example, the grooves making up a corrugated material. The groove serves as a combined aid, i.e. providing both a guide as to where the separation is to be and a guide for a tool performing the separation. When the sheet flashing is made of a material, which will break and separate relatively easily under a bending operation, merely scoring the material along the groove with a knife or similar instrument will allow for easy separation, i.e. a light scoring followed by some bending back and forth will result in separation along the groove. A suitable material allowing for this operation would be a rigid material, such as a metal or a hard plastic like PVC and normally zinc or iron or aluminium, which is also traditionally used for roof flashing members. The groove may be formed as a simple depression, which can advantageously be performed during manufacture, but it may also be formed between raised portions. Alternatively, a one- or double-sided notch may be used, in which case a scoring is no longer necessary.

[0019] The separation means may also be formed as a thread or wire embedded in the flashing material in such a way, that it can be torn out, thereby separating the flashing in two or leaving it sufficiently weakened to be separated by hand, the system corresponding to the one known from packs of crackers or the like. Analogously, two notches may be formed in the flashing material, the notches being so close to each other that the flashing material between them forms a threadlike strip. This strip may be pulled out of the flashing by hand, as it is known from the opening of a beverage cans, or by using a tool.

[0020] In another preferred embodiment the first and second sheet portions are connected by an additional longitudinal connecting element allowing for easy separation, either by use of a tool such as a knife, or by simple manual tearing apart. The connecting element may be formed by, for example, a metal foil, a polymer, bitumen, or laminates thereof.

[0021] In a further preferred embodiment, the first and second sheet portions comprise cooperating coupling means, allowing the two portions to be either connected to each other (when supplied as separate members) or separated from each other (when supplied as a pre-connected unitary member) or, preferably, in the form of releasable coupling means. In such a configuration, the coupling means may serve as a means for attaching a skirt portion, which may be supplied either in combination

with the flashing member or may be provided separately. Indeed, the coupling means should provide a seal between the two portions substantially impermeable for water in a mounted position.

[0022] According to an embodiment of the invention the sheet portions have opposed end portions, at least one end portion of at least one sheet portion comprising a corner segment arranged substantially perpendicular to the general longitudinal orientation of the sheet flashing member.

[0023] The flashing members of the present invention are preferably manufactured from sheet metal, for instance aluminium, copper, steel, or zinc, which may be surface coated on one or both sides. However, other materials such as plastics may be used for the entire flashing member or for portions thereof, e.g. for the connecting element.

[0024] The invention will now be explained in detail with reference to the schematic drawings, in which

Fig. 1 is a perspective view showing the different components of a prior art flashing assembly for four adjacent roof windows,

Fig. 2 is a perspective view of a flashing member, Figs. 3 to 5 show cross-sectional views of flashing members according to the present invention,

Fig. 6 shows a sheet flashing member according to the invention in the state, where it is separated and mounted on a single window, and

Fig. 7 shows a flashing member in combination with a skirt member.

[0025] In the figures the different components are not necessarily drawn to scale but merely serve to illustrate the general principles of the present invention. Further, like numerals are used to denote identical or like components.

[0026] Fig. 1 illustrates the different components of a prior art flashing assembly for four roof windows 1 mounted in a 2x2 configuration. As appears, a special flashing member 2 is arranged between the upper and lower windows and different flashing members are used as upper 3 and lower 4 flashing members.

[0027] Fig. 2 shows a sheet flashing member 100, the flashing member being adapted to seal the gap between a pair of roof windows (not shown) mounted above each other with an upper respectively a lower frame portion facing towards each other. The flashing member comprises a first sheet portion 110 adapted to engage the lower frame portion of the upper window, a second opposed sheet portion 120 adapted to engage the upper frame portion of the lower window, the first and second sheet portions 110, 120 forming a longitudinal gutter-like flashing member 100, extending in the mounted position between the upper portion of the lower window and the lower portion of the upper window. As appears, the flashing member 100 has a bottom portion in the form of an intermediate sheet portion 121, which does not engage

any window frame portions but merely spans the gap there between.

[0028] The flashing member 100 comprises at its opposed ends corner segments 111, 112 arranged substantially perpendicularly to the general orientation of the flashing member. In the embodiment shown, each corner segment 111, 112 comprises an upstanding flange portion 111a, 112a, 112b of which flange portions 111a and 112a are connected with the first sheet portion 110 and the not shown flange portion at the corner section 111 and the flange portion 112b are connected with the second sheet portion 120. The flange portions 111a, 112a, 112b are adapted to engage and connect side frame portions of the two windows. It is to be understood, that the corner segments 111, 112 need not have the shape shown in Fig. 2 as this embodiment only serves an illustrative purpose.

[0029] The bottom portion 121 and corner segments 111, 112 may be formed as one-piece parts of either the first 110 or second 120 sheet portion or both in combination or they may be formed as separate parts that are attached to one or both sheet portions by welding or the like.

[0030] In the embodiment shown, the second sheet portion 120 has an upper edge portion 123 comprising a flange member 124 arranged at an angle to and facing away from the first sheet portion 110. Preferably the flange is arranged substantially perpendicularly relative to the second sheet portion 120 to which it connects. The flange member 124 is intended for connection with the top side of the upper frame portion of the lower window and the first sheet portion 110 may also be provided with such a flange member for connection with the lower frame portion of the upper window.

[0031] Between the first 110 and second 120 sheet portions the flashing member 100 is provided with additional separation means as will be described below.

[0032] The corner segments 111, 112 shown in Fig. 2 are relatively large ones that will give a large overlap with the side coverings (not shown) of the flashing, but they may also be formed as smaller segments as long as the resulting flashing arrangement is tight and will not come apart under the influence of strong winds or the like. Alternatively, the flashing according to the invention may be formed without corner segment. The inventive flashing may then be fastened to the side coverings by welding, gluing or the like, or the side coverings may have segments that will penetrate into or fit underneath the inventive flashing serving the same purpose as the corner segments.

[0033] Fig. 3 shows, in cross-section, a sheet flashing member 200 according to the present invention. Essentially, this flashing member comprises the same features as the flashing 100 described with respect to Fig. 2, i.e. first and second sheet portions 210, 220 forming a longitudinal gutter-like flashing member, the first portion 210 being provided with corner segments of which only one 211 can be seen. The second portion 220 is here provid-

ed with an upper flange member 224. In accordance with the invention the flashing member 200 is provided with separation means 230 arranged between the first and second sheet portions allowing them to be separated corresponding to a predetermined configuration. The shown separation means is in the form of an embossed groove 230. When the sheet flashing is made of a material, which will relatively easily break and separate under a bending operation, merely scoring the material along the groove with a knife or similar instrument will allow for easy separation. In the shown embodiment the groove is arranged approximately in the middle of a bottom portion formed in combination by the first and second sheet portions, however, it may be arranged closer to either of these portions, just as more than one separation means may be provided allowing for increased flexibility.

[0034] In Fig. 4, showing a sheet flashing member 300, the separation means is provided by a strip of a flexible foil material 330 or the like connecting opposed edge portions 331, 332 of the two sheet portions 310, 320, respectively, this material allowing for easy separation, either by use of a tool such as a knife, or by simple manual tearing. To ensure a precise separation the strip-formed separation means must be easier to separate than the sheet flashing members it connects.

[0035] In Fig. 5, showing a sheet flashing member 400, the separation means 430 is provided by cooperating, releasable coupling means 431, 432 arranged on edge portions of the two sheet portions 410, 420, respectively, allowing the two portions to be easily disconnected from each other without the need for a tool. The shown coupling means is in the form of bend-over edge portions allowing the edges to be easily disconnected and further allows some adjustment of the width of the bottom portion. As appears, this type of connection can be disengaged by relative axial movement of the two sheet portions 410, 420. As will be described below these coupling means 430 also allows a reengagement of the sheet portions 410, 420.

[0036] In Fig. 6 a flashing has been separated into two separate flashings by a splitting of the bottom portion 721 into two parts 721a and 721b of approximately equal size, the two new flashings corresponding to the two sheet portions 710 and 720. The first portion 710 have been mounted below a roof window 701 and the second portion 720 above it so that the flange 724 overlaps the top of the upper frame portion 726.

[0037] The flashing members described with reference to Figs. 3-6 may be characterized as combined, unitary flashing members serving a dual purpose. More specifically, for a given roof window a single flashing member is provided which in its separated form provides an upper as well as a lower flashing member, whereas it in its combined form provides a flashing member to be mounted between an upper and a lower roof window, e.g. when a pair of roof windows are to be mounted above each other, two identical combined, unitary flashing members are provided, one serving as a lower flashing for the lower

window as well as an upper flashing for the upper window, the other serving as a flashing between the two windows.

[0038] In the above description, a combined flashing is separated to form two individual flashing members, however, in case the separation means are in the form of coupling means the upper and lower flashing members may also be supplied as separated members, which may then be connected to serve as connecting flashing. In preferred embodiments, the coupling means are releasable allowing for both assembling and disassembling.

[0039] Further, coupling means may serve as a means for attaching a skirt portion, which may be supplied either in combination with the flashing member or may be provided separately. This is shown in Fig. 7 in which a flashing member 510 for a lower frame portion comprises a bend-over lower edge portion 531 (corresponding to the one 431 shown in Fig. 5), which may serve as a coupling means for both a flashing member for an upper frame portion (not shown) or for a skirt member 540 comprising a lower free edge 541 and a corresponding coupling means 542 along the upper edge portion 543 thereof and adapted for engaging the flashing member 510. The skirt member may be of a sandwich construction comprising a stress damping and stabilizing core layer of ductile material covered on at least one side by a foil sheeting.

[0040] Whereas the present invention has been described with respect to preferred embodiments thereof, it will be understood that various changes and modifications will be suggested to one skilled in the art and it is intended to encompass such changes and modifications as fall within the scope of the appended claims. For example, additional sealing material may be provided between the cooperating coupling means.

Claims

1. A sheet flashing member (200, 300, 400) comprising:
 - a first sheet portion (210, 310, 410) adapted to engage a surface of a first roof penetrating building structure,
 - a second opposed sheet portion (220, 320, 420) adapted to engage a surface of a second roof penetrating building structure, the first and second sheet portions forming a longitudinal gutter-like flashing member,
 - separation means (230, 330, 430) is provided between the first and second sheet portions **characterized in that** the separation means (230, 330, 430) allow the first (210, 310, 410) and the second (220, 320, 420) sheet portion to be separated into two separate flashings corresponding to a predetermined configuration, the sheet flashing member (200, 300, 400) can thereby be used for flashing a top and a bottom of the first or the second roof penetrating structure in the form of a first and a second window,

as well as a space between the first and the second windows, the windows being arranged one above the other.

2. A sheet flashing member (200, 300, 400) as defined in claim 1, wherein the separation means (230, 330, 430) is arranged generally in parallel with the general longitudinal orientation of the sheet flashing member (200, 300, 400). 5
3. A sheet flashing member (200) as defined in claim 1 or 2, wherein the separation means comprises one or more notches or grooves (230), preferably formed by depressions. 10
4. A sheet flashing member (300) as defined in claim 1 or 2, wherein the first sheet portion (310) comprises a first connecting edge portion (331) and the second sheet portion (320) comprises a second connecting edge portion (332), the two edge portions being connected by a strip-formed separation means (330) allowing for easy manual separation. 15
5. A sheet flashing member (400) as defined in claim 1 or 2, wherein the first sheet portion (410) comprises a first connecting edge portion and the second sheet portion (420) comprises a second connecting edge portion, the two edge portions comprising releasable cooperating coupling means (431, 432) connecting the two sheet portions and serving as the separation means (430). 20
6. A sheet flashing member as defined in one of the preceding claims, wherein the sheet portions (110, 120; 210, 220; 310, 320; 410, 420) have opposed end portions, at least one end portion of at least one sheet portion comprising a corner segment (211) arranged substantially perpendicular to the general longitudinal orientation of the sheet flashing member. 25
7. A sheet flashing member (400) in accordance with claim 1, wherein 30
 - the first sheet portion (410) comprises a first connecting edge portion and the second sheet portion (420) comprises a second connecting edge portion, the two edge portions comprising the separation means (430) provided by cooperating coupling means (431, 432) allowing the first and second sheet portions (410, 420) to form the longitudinal gutter-like flashing member when connected to each other, and the two separate flashings when separated, 35
 - so that the same sheet flashing member may be used for flashing the top and bottom of the first or the second roof penetrating structure in the form of a first and a second window, the two sheet portions (410, 420) being arranged above and below the windows, respectively, as well as for flashing the space between the first and the second windows mounted one above the other, the sheet portions (410, 420) being connected to each other, thereby forming the combined longitudinal gutter-like flashing member. 40
8. A sheet flashing member as defined in claim 7, wherein the coupling means (430) is in the form of bent-over edge portions (431, 432). 45
9. A sheet flashing kit comprising at least two sheet flashing members adapted for use as side flashing members for a roof window, and at least two sheet flashing members adapted for use as upper respectively lower flashing members for a roof window, wherein the latter two are provided as a sheet flashing member as defined in any of claims 1 to 8. 50
10. Method for flashing a roof penetrating building structure using a sheet flashing member according to any of claims 1 to 8, **characterized in** using a combined sheet flashing member either as a connecting flashing element between a pair of upper and lower neighbouring roof windows or, when separated appropriately, as both an upper flashing member between a roof penetrating structure and the neighbouring roof surface and as a lower flashing member between a roof penetrating structure and the roof surface. 55
11. Method according to claim 10, where, for separating a sheet flashing member (400) comprising separation means (430) provided by cooperating, releasable coupling means (431, 432) in the form of bent-over edge portions of the two sheet portions (410, 420), where the edges of the first and second sheet portions are disengaged by relative axial movement of the two sheet portions (410, 420). 60
12. Method according to claim 10, wherein, when a sheet flashing member is made of a material which will break and separate relatively easily under a bending operation, the material is scored along a groove with a knife or similar instrument followed by some bending back and forth until separation along the groove. 65
13. Method according to claim 10, where a thread or wire embedded in the flashing material is torn out, thereby separating the flashing in two or leaving it sufficiently weakened to be separated by hand, or where a threadlike strip formed between two notches in the flashing material is pulled out of the flashing. 70
14. Method according to any of claims 10-13 for flashing roof penetrating building structures arranged one above the other, where one first sheet portion (110, 210, 310, 410) and one second sheet portion (120, 220, 320, 420) are provided as a sheet flashing member as defined in any of claims 1 to 8. 75

220, 320, 420) are mounted separately below and above the roof penetrating building structures, respectively, and where a combined sheet flashing member is used as a connecting flashing element between the roof penetrating building structures.

15. A method according to any of claims 10-14 for use of a sheet flashing member as defined in any of claims 5, 7 or 8 or of claims 5 and 6, where the coupling means (431, 531) of the first sheet portion (410) or first sheet flashing member are used as a means for attaching a skirt portion (540), which may be supplied either in combination with the flashing member or may be provided separately.

Patentansprüche

1. Abdeckblechelement (200, 300, 400), umfassend:

- einen ersten Blechabschnitt (210, 310, 410), der dafür eingerichtet ist, eine Oberfläche einer ersten das Dach durchdringenden Gebäudestruktur in Eingriff zu nehmen,
- einen zweiten, gegenüberliegenden Blechabschnitt (220, 320, 420), der dafür eingerichtet ist, eine Oberfläche einer zweiten das Dach durchdringenden Gebäudestruktur in Eingriff zu nehmen, wobei der erste und der zweite Blechabschnitt ein längsgerichtetes dachrinnenähnliches Abdeckelement bilden,
- wobei zwischen dem ersten und dem zweiten Blechabschnitt ein Trennmittel (230, 330, 430) bereitgestellt ist, **dadurch gekennzeichnet, dass** das Trennmittel (230, 330, 430) das Trennen des ersten (210, 310, 410) und des zweiten (220, 320, 420) Blechabschnitts in zwei separate Abdeckungen entsprechend einer festgelegten Gestaltung ermöglicht, wobei das Abdeckblechelement (200, 300, 400) dadurch zum Abdecken einer Oberseite und einer Unterseite der ersten oder der zweiten das Dach durchdringenden Struktur in Form eines ersten und eines zweiten Fensters sowie eines Abstands zwischen dem ersten und den zweiten Fenster verwendet werden kann, wobei die Fenster übereinander angeordnet sind.

2. Abdeckblechelement (200, 300, 400) nach Anspruch 1, wobei das Trennmittel (230, 330, 430) im Allgemeinen parallel zur der allgemeinen Längsausrichtung des Abdeckblechelements (200, 300, 400) angeordnet ist.

3. Abdeckblechelement (200) nach Anspruch 1 oder 2, wobei das Trennmittel eine oder mehrere Kerben oder Rillen (230) umfasst, die vorzugsweise durch Einsenkungen gebildet sind.

4. Abdeckblechelement (300) nach Anspruch 1 oder 2, wobei der erste Blechabschnitt (310) einen ersten verbindenden Randabschnitt (331) umfasst und der zweite Blechabschnitt (320) einen zweiten verbindenden Randabschnitt (332) umfasst, wobei die zwei Randabschnitte durch ein streifenförmiges Trennmittel (330) verbunden sind, das eine leichte manuelle Trennung ermöglicht.

5. Abdeckblechelement (400) nach Anspruch 1 oder 2, wobei der erste Blechabschnitt (410) einen ersten verbindenden Randabschnitt umfasst und der zweite Blechabschnitt (420) einen zweiten verbindenden Randabschnitt umfasst, wobei die zwei Randabschnitte lösbar zusammenwirkende Kopplungsmittel (431, 432) umfassen, welche die zwei Blechabschnitte verbinden und als das Trennmittel (430) dienen.

6. Abdeckblechelement nach einem der vorhergehenden Ansprüche, wobei die Blechabschnitte (110, 120; 210, 220; 310, 320; 410, 420) gegenüberliegende Endabschnitte aufweisen, wobei mindestens ein Endabschnitt von mindestens einem Blechabschnitt ein Ecksegment (211) umfasst, das im Wesentlichen senkrecht zu der allgemeinen Längsausrichtung des Abdeckblechelements angeordnet ist.

7. Abdeckblechelement (400) nach Anspruch 1, wobei
- der erste Blechabschnitt (410) einen ersten verbindenden Randabschnitt umfasst und der zweite Blechabschnitt (420) einen zweiten verbindenden Randabschnitt umfasst, wobei die zwei verbindenden Randabschnitte das Trennmittel (430) umfassen, das durch zusammenwirkende Kopplungsmittel (431, 432) bereitgestellt ist, die es dem ersten und dem zweiten Blechabschnitt (410, 420) ermöglichen, das längsgerichtete dachrinnenähnliche Abdeckelement zu bilden, wenn sie miteinander verbunden sind, und die zwei separaten Abdeckungen, wenn sie getrennt sind, so dass das gleiche Abdeckblechelement zum Abdecken der Oberseite und der Unterseite der ersten oder der zweiten das Dach durchdringenden Struktur in Form eines ersten und eines zweiten Fensters verwendet werden kann, wobei die zwei Blechabschnitte (410, 420) über beziehungsweise unter den Fenstern angeordnet sind, sowie auch zum Abdecken des Abstands zwischen dem ersten und dem zweiten Fenster, die übereinander montiert sind, wobei die Blechabschnitte (410, 420) miteinander verbunden sind, wodurch das kombinierte längsgerichtete dachrinnenähnliche Abdeckelement gebildet ist.

8. Abdeckblechelement nach Anspruch 7, wobei das Kopplungsmittel (430) in Form umgebogener Randabschnitte (431, 432) vorliegt.
9. Abdeckblechbausatz, mindestens zwei Abdeckblechelemente, die zur Verwendung als Seitenabdeckelemente für ein Dachfenster eingerichtet sind, und mindestens zwei Abdeckblechelemente, die zur Verwendung als oberes beziehungsweise unteres Abdeckelement für ein Dachfenster eingerichtet sind, umfassend, wobei die letzteren beiden als ein Abdeckblech nach einem der Ansprüche 1 bis 8 bereitgestellt sind.
10. Verfahren zum Abdecken einer das Dach durchdringenden Gebäudestruktur unter Verwendung eines Abdeckblechs nach einem der Ansprüche 1 bis 8, **gekennzeichnet durch** die Verwendung eines kombinierten Abdeckblechelements entweder als ein verbindendes Abdeckelement zwischen einem Paar aus oberem und unterem benachbarten Dachfenster oder, wenn in geeigneter Weise getrennt, sowohl als ein oberes Abdeckelement zwischen einer das Dach durchdringenden Struktur und der benachbarten Dachfläche als auch als ein unteres Abdeckelement zwischen einer das Dach durchdringenden Struktur und der Dachfläche.
11. Verfahren nach Anspruch 10, wobei zum Trennen eines Abdeckblechelements (400), das Trennmittel (430) umfasst, die durch zusammenwirkende lösbbare Kopplungsmittel (431, 432) in Form von umgebogenen Randabschnitten der zwei Blechabschnitte (410, 420) bereitgestellt sind, wobei die Ränder des ersten und des zweiten Blechabschnitts durch axiale Bewegung der zwei Blechabschnitte (410, 420) zueinander gelöst werden.
12. Verfahren nach Anspruch 10, wobei, wenn ein Abdeckblechelement aus einem Material besteht, das bei einem Biegevorgang relativ leicht brechen und getrennt wird, das Material entlang einer Rille mit einem Messer oder einem ähnlichen Instrument vorgegritzt wird, gefolgt von einigem Vor- und Zurückbiegen bis zum Trennen entlang der Rille.
13. Verfahren nach Anspruch 10, wobei ein in das Abdeckmaterial eingebetteter Faden oder Draht herausgezogen wird, wodurch die Abdeckung in zwei getrennt oder ausreichend geschwächt wird, um von Hand getrennt zu werden oder wobei ein zwischen zwei Kerben in dem Abdeckmaterial gebildeter fadenähnlicher Streifen aus der Abdeckung herausgezogen wird.
14. Verfahren nach einem der Ansprüche 10 bis 13 zum Abdecken von das Dach durchdringenden Gebäudestrukturen, die übereinander angeordnet sind, wo-

bei ein erster Blechabschnitt (110, 210, 310, 410) und ein zweiter Blechabschnitt (120, 220, 320, 420) separat unter beziehungsweise über den das Dach durchdringenden Gebäudestrukturen montiert werden und wobei ein kombiniertes Abdeckblechelement als ein verbindendes Abdeckelement zwischen den das Dach durchdringenden Gebäudestrukturen verwendet wird.

15. Verfahren nach einem der Ansprüche 10 bis 14 zur Verwendung eines Abdeckblechelements nach einem der Ansprüche 5, 7 oder 8 oder der Ansprüche 5 und 6, wobei das Kopplungsmittel (431, 531) des ersten Blechabschnitts (410) oder des ersten Abdeckblechelements als ein Mittel zum Anbringen eines Schürzenabschnitts (540) verwendet werden, der entweder in Kombination mit dem Abdeckelement geliefert oder separat bereitgestellt werden kann.

Revendications

1. Élément (200, 300, 400) de solin en feuille comportant :
- une première partie (210, 310, 410) de feuille prévue pour interagir avec une surface d'une première structure de bâtiment traversant un toit,
 - une seconde partie (220, 320, 420) de feuille opposée prévue pour interagir avec une surface d'une seconde structure de bâtiment traversant un toit, les première et seconde parties de feuille formant un élément longitudinal de solin semblable à une gouttière,
 - un moyen (230, 330, 430) de séparation étant placés entre les première et seconde parties de feuille, **caractérisés en ce que** le moyen (230, 330, 430) de séparation permettent à la première (210, 310, 410) et à la seconde partie (220, 320, 420) de feuille d'être séparées en deux solins distincts correspondant à une configuration prédéterminée, l'élément (200, 300, 400) de solin en feuille pouvant ainsi être utilisé pour habiller un haut et un bas de la première ou de la seconde structure traversant le toit sous la forme d'une première et d'une seconde fenêtre, ainsi qu'un espace entre la première et la seconde fenêtres, les fenêtres étant disposées l'une au-dessus de l'autre.
2. Élément (200, 300, 400) de solin en feuille selon la revendication 1, le moyen (230, 330, 430) de séparation étant disposé généralement en parallèle avec l'orientation longitudinale générale de l'élément (200, 300, 400) de solin en feuille.

3. Élément (200) de solin en feuille selon la revendication 1 ou 2, le moyen de séparation comportant une ou plusieurs encoches ou rainures (230), de préférence formées par des cuvettes.
4. Élément (300) de solin en feuille selon la revendication 1 ou 2, la première partie (310) de feuille comportant une première partie (331) de bord de liaison et la seconde partie (320) de feuille comportant une seconde partie (332) de bord de liaison, les deux parties de bord étant reliées par un moyen (330) de séparation formé en bande autorisant une séparation manuelle facile.
5. Élément (400) de solin en feuille selon la revendication 1 ou 2, la première partie (410) de feuille comportant une première partie de bord de liaison et la seconde partie (420) de feuille comportant une seconde partie de bord de liaison, les deux parties de bord comportant des moyens (431, 432) de couplage détachables en coopération reliant les deux parties de feuille et servant de moyen (430) de séparation.
6. Élément de solin en feuille selon l'une des revendications précédentes, les parties (110, 120 ; 210, 220 ; 310, 320 ; 410, 420) de feuille comprenant des parties d'extrémités opposées, au moins une partie d'extrémité d'au moins une partie de feuille comportant un segment (211) de coin disposé sensiblement perpendiculairement à l'orientation longitudinale générale de l'élément de solin en feuille.
7. Élément (400) de solin en feuille selon la revendication 1,
- la première partie (410) de feuille comportant une première partie de bord de liaison et la seconde partie (420) de feuille comportant une seconde partie de bord de liaison, les deux parties de bord comportant le moyen (430) de séparation constitué par des moyens (431, 432) de couplage en coopération permettant aux première et seconde parties (410, 420) de feuille de former l'élément longitudinal de solin semblable à une gouttière lorsqu'elles sont liées l'une à l'autre, et les deux solins distincts lorsqu'elles sont séparées, de sorte que le même élément de solin en feuille peut être utilisé pour habiller le haut et le bas de la première ou de la seconde structure traversant le toit sous la forme d'une première et d'une seconde fenêtre, les deux parties (410, 420) de feuille étant disposées respectivement au-dessus et au-dessous des fenêtres, ainsi que pour habiller l'espace entre les première et seconde fenêtres montées l'une au-dessus de l'autre, les parties (410, 420) de feuille étant liées l'une à l'autre, formant ainsi l'élément longitudinal de solin combiné semblable à une gouttière.
8. Élément de solin en feuille selon la revendication 7, les moyens (430) de couplage étant sous la forme de parties (431, 432) de bord recourbées.
9. Kit de solin en feuille comportant au moins deux éléments de solin en feuille prévus pour être utilisés comme éléments latéraux de solin pour une fenêtre de toit, et au moins deux éléments de solin en feuille prévus pour être utilisés comme éléments supérieur, respectivement inférieur, de solin pour une fenêtre de toit, ces deux derniers étant réalisés comme un élément de solin en feuille selon l'une quelconque des revendications 1 à 8.
10. Procédé d'habillage d'une structure de bâtiment traversant un toit à l'aide d'un élément de solin en feuille selon l'une quelconque des revendications 1 à 8, **caractérisé par** l'utilisation d'un élément de solin combiné en feuille soit en tant qu'élément de solin de liaison entre une paire de fenêtres de toit supérieure et inférieure voisines, soit, lorsqu'ils sont séparés de manière appropriée, à la fois en tant qu'élément de solin supérieur entre une structure traversant un toit et la surface de toit voisine et en tant qu'élément de solin inférieur entre une structure traversant le toit et la surface de toit.
11. Procédé selon la revendication 10, un élément (400) de solin en feuille comportant, pour la séparation, un moyen (430) de séparation constitué par des moyens (431, 432) de couplage détachables en coopération sous la forme de parties de bord recourbées des deux parties (410, 420) de feuille, les bords des première et seconde parties de feuille étant désolidarisés par un mouvement axial relatif des deux parties (410, 420) de feuille.
12. Procédé selon la revendication 10, lorsqu'un élément de solin en feuille est constitué d'un matériau qui se casse et se sépare relativement facilement sous l'effet d'une opération de flexion, le matériau étant entaillé le long d'une rainure avec un couteau ou instrument similaire, ce qui est suivi d'une flexion alternée jusqu'à la séparation le long de la rainure.
13. Procédé selon la revendication 10, un cordon ou un fil métallique encastré dans le matériau de solin étant arraché, séparant ainsi le solin en deux ou le laissant suffisamment affaibli pour être séparé à la main, ou une bande semblable à un fil formée entre deux encoches dans le matériau de solin étant arraché du solin.
14. Procédé selon l'une quelconque des revendications 10 à 13 pour habiller des structures de bâtiment traversant un toit disposé l'une au-dessus de l'autre,

une première partie (110, 210, 310, 410) de feuille et une seconde partie (120, 220, 320, 420) de feuille étant montées séparément au-dessous et au-dessus des structures de bâtiment traversant le toit, respectivement, et un élément de solin combiné en feuille étant utilisé comme élément de solin de liaison entre les structures de bâtiment traversant le toit. 5

15. Procédé selon l'une quelconque des revendications 10 à 14 pour l'utilisation d'un élément de solin en feuille selon l'une quelconque des revendications 5, 7 ou 8 ou des revendications 5 et 6, les moyens (431, 531) de couplage de la première partie (410) de feuille ou du premier élément de solin en feuille étant utilisés en tant que moyens de fixation d'une partie (540) de jupe, qui peut soit être fournie en combinaison avec l'élément de solin, soit être réalisée séparément. 10 15

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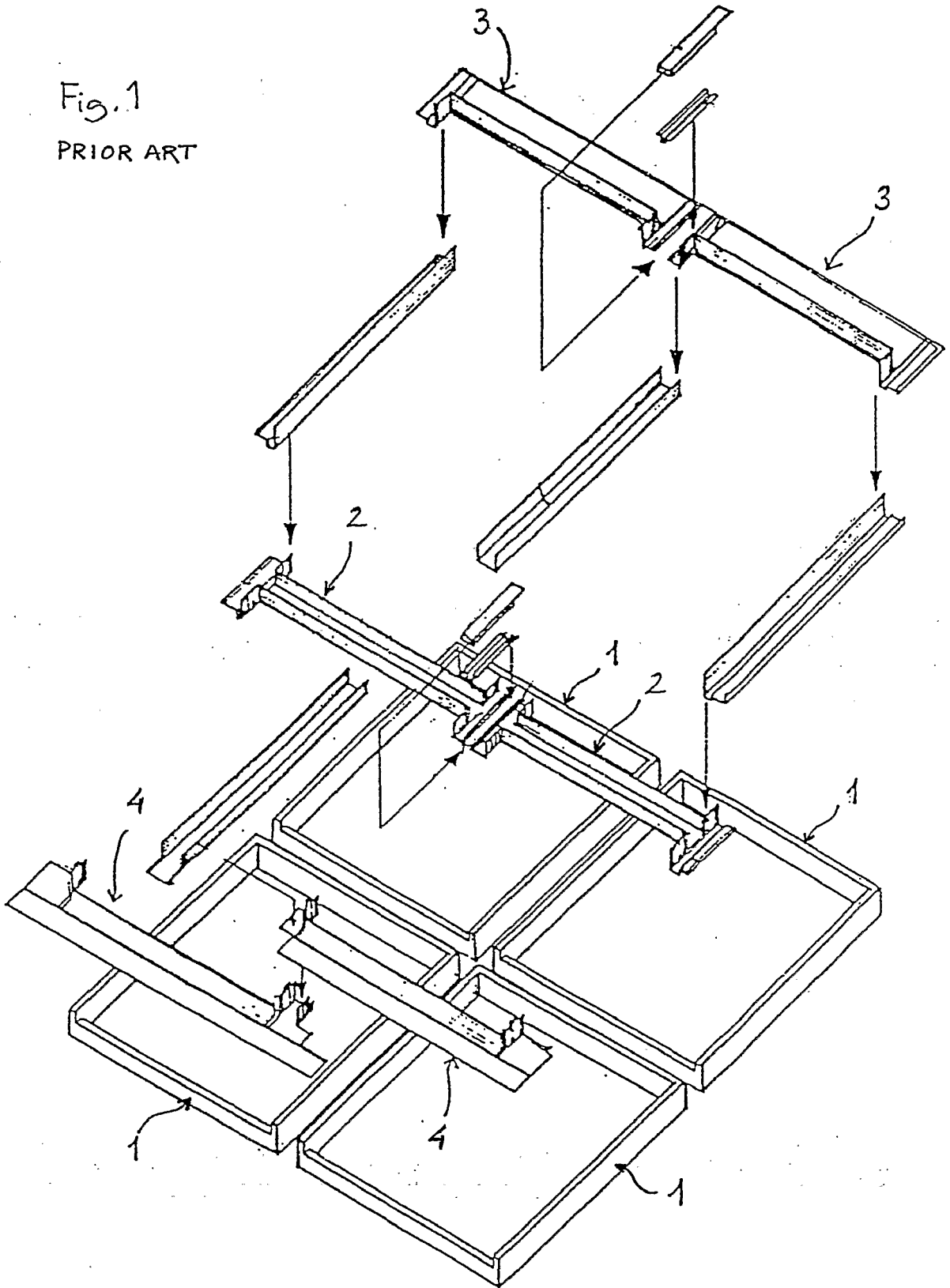
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Fig. 1
PRIOR ART



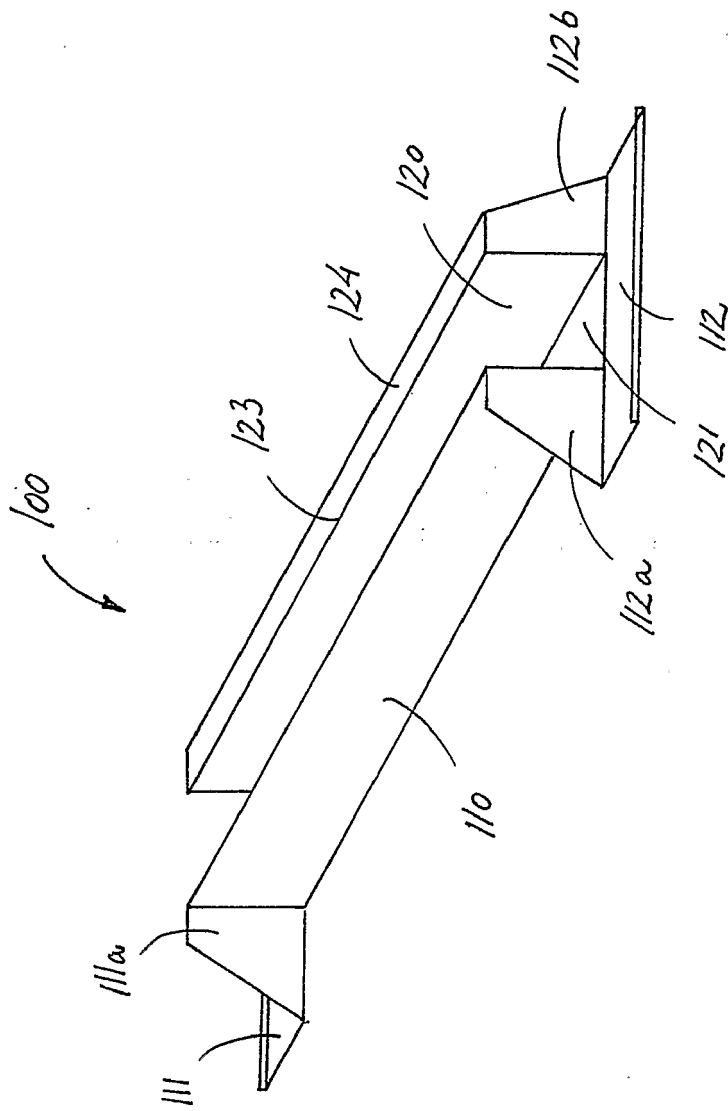


Fig. 2

Fig. 3

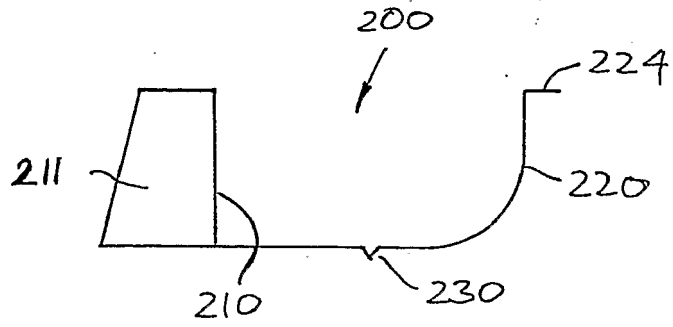


Fig. 4

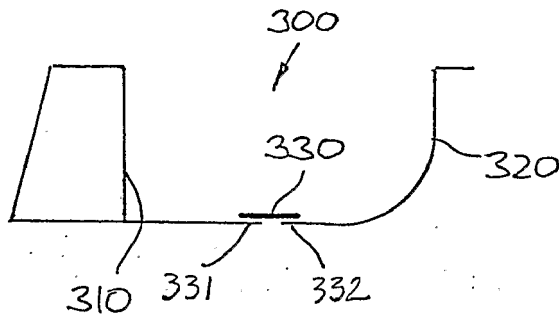


Fig. 5

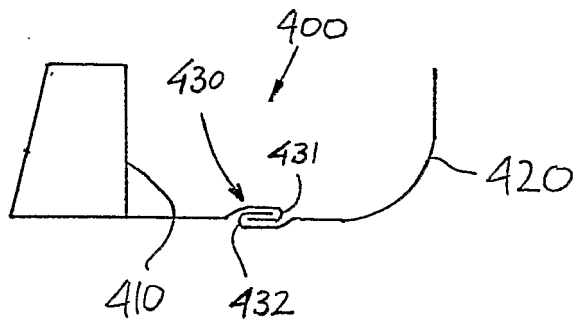


Fig. 7

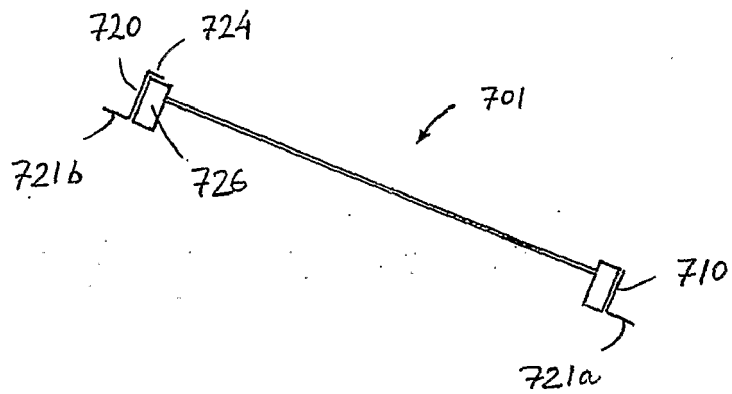
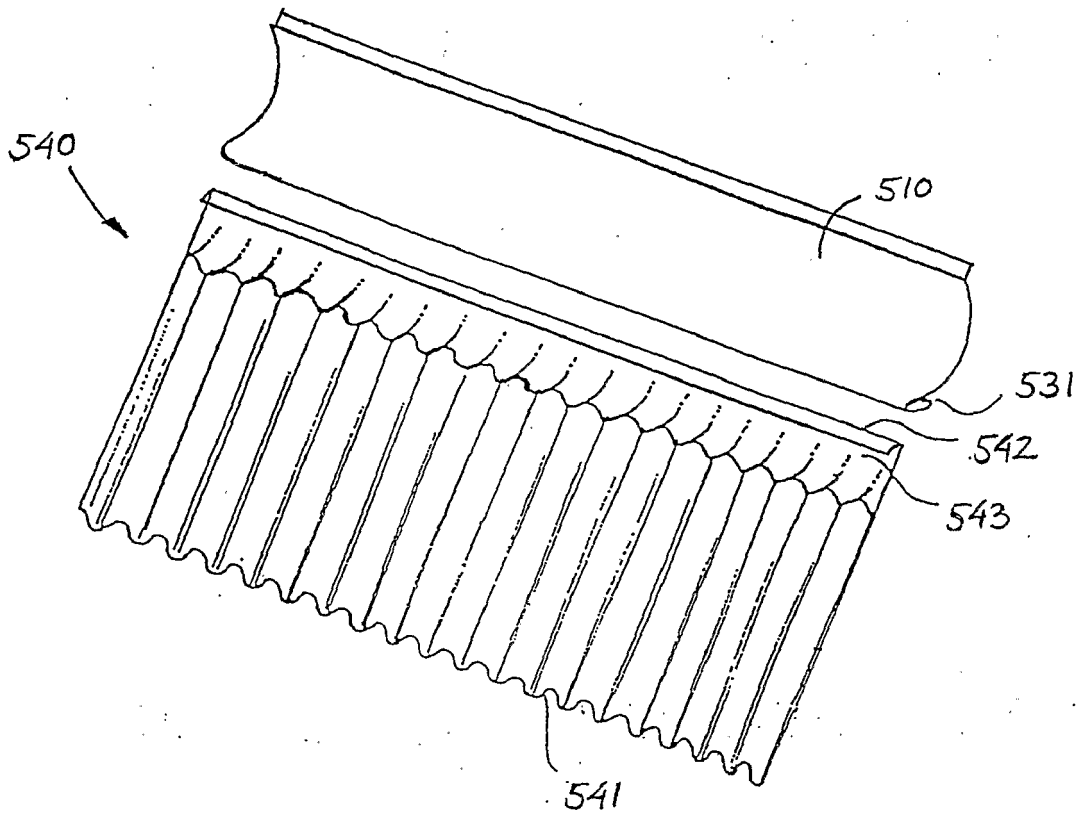


Fig. 6

REFERENCES CITED IN THE DESCRIPTION

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