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(54) Covering arrangement for architectural openings

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Description

[0001] The present invention relates to a covering arrangement for an architectural opening. The invention also relates to a method of attaching a covering for an architectural opening to a building structure.

[0002] Coverings for architectural openings can be made to serve a wide variety of purposes. Mostly such coverings are to regulate the light entering a building. One type includes the so-called screens which are designed to cover any opening in a building structure and are more particularly used to cover the opening of an open window in order to keep insects, leaves, debris, birds, and other animals from entering the building while permitting fresh air-flow. The screen may comprise of a metal wire, fibreglass, or other synthetic fibre mesh, for instance stretched in a frame. In other types of window screens the primary function is to reduce sunlight and heat gain and these type of screen may comprise of different materials, for instance glass fibre fabric.

[0003] Screens and other rollable coverings are often mounted to a roller about which the covering can be wound to retract the covering or unwound to extend the covering with respect to the architectural opening.

[0004] When such coverings are used at the outside of a building, which is generally the case with screens, the roller can be housed in a so-called cassette. Such coverings are also known as cassette blinds. Cassette blinds include but are not limited to screens, and as such can also include roller blinds, shutter type blinds and the like.

[0005] Window coverings can be provided with side guide profiles which guide the side edges of the covering when extended or retracted. Since window screens are often mounted outside a building the screen is subject to wind acting on it. To prevent wind forces from pulling the side edges of the cover material out of the side guides, these side edges of the blind can be provided with means that prevent such pulling out. These means can be thickened distinct portions on the blind side edges or a bead thickening the edge continuously. The width of these thickened side edges will need to be more than the entrance of the side guiding profile in order to prevent the pulling out. The screen can thus only be lead into the side guide profile from a top or bottom open location where the opening is large enough to allow the thick portion to enter the guide. The screen side is zipped into the guide, hence the nick name zip screens for such blinds. The thickened portions on the side edges of the blind cover are sometimes called pips or zipper-parts. An example of this type of window screens is disclosed in US 4,638,844.

[0006] Cassette blinds, which can include zip screens, that are 6 meters (20 feet) wide and 3 meters (10 feet) high are no exception. Obviously installing the side guides and especially the cassette containing the roller with 18 square meters (almost 200 square feet) of screen material in or near an architectural opening can be a

daunting task. It is a known procedure to first mount the side guides, which generally are vertically oriented, to the structure surrounding the architectural opening for instance by attaching them to the outer wall of a building.

Once the side guides are in place, the cassette is then mounted atop the installed side guides by lifting it up and above the side guides and then lowering it until it rests on top of the side guides, after which it can be permanently affixed. The cassette extends perpendicular to the side guides, which generally is horizontally with respect to the vertical extending side guides. In practice connecting members depend from either side of the lower surface of the cassette to be inserted from the top into the side guiding profiles. This means that the cassette has to be lifted high enough to also clear these connecting members over the top ends of the side guide profiles. Unfortunately, it is very common that the cassette is to be mounted directly underneath a ceiling or top part of a window frame, so that there is no room to mount the cassette by lowering it from a position vertically above the side guide profiles. In this case, the prior art systems offer no alternative but assembling the side guides and the cassette with its connecting members prior to mounting the assembled system to the building. In practice this means that the cassette and the side guides are fit together on the ground in front of the opening and subsequently raised and affixed to the building as a whole. This alternative is much more cumbersome than first affixing the side guides to the structure surrounding the opening and subsequently mounting the cassette on top of them.

[0007] EP 1 748 143 A describes a roller shutter having a rise and fall hanging curtain or shutter which moves in guide rails attachable to the sides of the opening. The guide rails and the overhead box form separate assembly units whereby the box can be fitted onto the guide rails through a pivotal and/or sliding movement and can be secured against displacement outside of the guide rails. The front box has on the underneath short positioning pins which can be inserted into a channel socket in the associated guide rail so that the box can be hung by a corner between the pin and its lower edge on the front upper edge of the channel sockets. The pins can then be swivelled into the socket.

[0008] It is an object of the invention to provide a architectural covering arrangement that can be installed more easily.

[0009] According to a first aspect of the invention at least one of the objects is achieved in a architectural covering arrangement, as defined in appended claim 1.

[0010] In this way the cassette may be installed in a fast and efficient way, without having to raise the cassette to a higher position than the top end of the side guide profiles (if at all possible) and to lower the cassette onto the side guide profiles.

[0011] Advantageously the second opening is an elongated opening extending along the length of the profile.

[0012] Also advantageously the first channel section of the side guide includes a generally U-shaped profile

having a back surface and a pair of front and rear side walls extending from said back surface and defining said first opening.

[0013] Further advantageously the second channel includes a generally U-shaped profile having a second back surface and a pair of second inner and outer side walls extending from said back surface and defining said second opening.

[0014] More advantageously the first back surface of the first channel coincides with the inner wall of the second channel.

[0015] Further advantageously the cassette includes a first connection part insertable into the second channel by the second channel opening of the side guide in the first direction and the first connection part and the side guide are connectable to affix the cassette to the side guide.

[0016] Advantageously the side guide further includes a cover to close the second opening.

[0017] Further advantageously the first channel section includes a generally U-shaped profile having a first back surface and a pair of first front and rear side walls extending from said back surface and defining said first opening and the second channel includes a generally U-shaped profile having a second back surface and a pair of second inner and outer side walls extending from said back surface and defining said second opening and the first back surface of the first channel coincides with the inner wall of the second channel.

[0018] Installing the cassette from the front of the side guides rather than from the top may mean that some of the connection parts in the side guide front are visible from the outside, having a cover solves this problem.

[0019] It is desired to have a cover for the side guide that can be easily assembled and removed. Particularly for side guides for coverings with thickened side edges, such as zip screens, the cover will be assembled after additional side guiding parts have been inserted into the first channel of the side guide. If such parts need to be serviced or replaced, the cover needs to be removed. In general a cover that can withstand the pulling forces will not be easily removable from the side guide.

[0020] It is a further object of the invention have a cover and side guide combination that allows easy assembly and easy opening and removal of the cover while at the same time will not be inadvertently be removed or loosened by the covering pulling at the rails, for example due to wind.

[0021] This object of the invention is achieved in that the cover includes an elongated base with inner an outer edges and a depending flange at the outer side edge and a depending hooked flange at or adjacent the inner side edge, such that upon assembly of the cover to the side guide profile the hooked flange engages the front side wall of the first channel section, spans the second channel and the depending flange engages the outer wall of the second channel.

[0022] By the combination of this cover to the side

guide having the first and second channel the cover is prevented from being pulled loose from the side guide by its hooked flange engaging the front side wall of the first channel. Wind pull forces act by the sides of the covering on the base and side walls of the first channel in a direction opposite to the hook connection, thus ensuring the engagement between the hooked flange of the cover and the wall of the first channel of the side guide. Release of the cover is by pushing inwardly. The hooked flange pushes against the inner wall which force is transmitted to the base of the first channel. The base of the first channel flexes slightly towards the outer wall of the second channel and allows the depending flange of the cover to release the outer wall of the second channel.

[0023] It will be clear to a skilled person that window coverings can be used to cover and uncover other items than windows, for example skylights or storage cabinets, and generally all openings that need to be covered or uncovered and where for example a hinged or sliding door is undesired or even impossible due to room constraints. Consequently, the present invention is not limited to window coverings.

Figures 1A and 1B are a perspective view and a partly cutaway view of an embodiment of the covering arrangement respectively.

Figures 2A-2C are perspective views of steps of the method of mounting the cassette on the side guides.

Figure 3 is a detailed perspective view of the connection parts of the cassette and of a side guide.

Figure 4 is a cross section of the side guide and the cover;

Figures 5A-5F are detailed perspectives (5A-5C) and cross sections (5D-5F) views of a side guide with rail and side guide cover.

Figures 6A-6D are cross section views of the cassette and the cassette cover (6A, 6B), with their respective hinge parts in detail (6C, 6D).

Figure 7 is a view of the trapezium shaped covering.

Figure 8A-8C are perspective views of alternative embodiments of the side guide and the connection parts of the cassette

[0024] Figures 1A and 1B illustrate one embodiment of a covering arrangement according the invention. Reference number 1 designates a cassette or casing to be mounted to for example a wall of a building. Cassette or casing 1 is provided with a removable cover 2. The removable cover 2 may be hingedly connected to the cassette or casing 1. The hinge (not shown in figure 1) may

be embodied so that it is not visible from the front of the covering arrangement when the cover is attached. A hinge that is particularly well suited for this purpose will be discussed hereafter. However, other types of hinges, for instance standard hinges that are visible from the front side of the covering arrangement may be employed as well.

[0025] The cassette is mounted on top the left and right side guides 8 for guiding the covering when it is extended or retracted from the cassette. Inside the cassette is a roller 9 rotatably mounted with covering 5 wound about it. The covering can be a screen, which can be made from cloth, netting, plastic, or any other suitable material. The covering can be unwound in the direction 7, for example by pulling at a bar 6 provided at the lower end of the screen 5. For rewinding the screen in the opposite direction, an electrical motor (not shown in figure 1) may be used. It is obvious to a skilled person that there are many alternatives for winding and unwinding the screen.

[0026] Also attached to the covering 5 are side guiding or fastening elements 10 which thicken the side edge of the covering and which are guided by rails 50 (for instance shown in figure 4) provided on each side of the screen. Rail 50 as best shown in figures 4A-4F has an elongated slot opening into a channel portion of the rail. When assembled the fastening elements 10 of the covering 5 will be inside the channel of the rail 50. The width of the slot is narrower than the fastening elements preventing the fastening elements from being pulled out of the rail 50 through the slot. Rails 50 are held by the side guides 8. When the screen is unwound, and thus lowered in the direction 7, the edges of the screen will be held, via the fastening elements and the rails, close to the side guides, preventing the screen from flapping in the wind. The fastening elements can be made of flexible material, for instance soft polymers or any other suitable material.

[0027] Figures 2A and 2B show the cassette 1 with its covering 5 spaced apart from the side guides 8. The cassette 1 is an generally rectangular housing having an opening in the lower side through which the covering can extend or retract. The cassette include a pair of left and right connection parts 20 depending from the left and right ends of the cassette in the plane in which the covering extends from the cassette. To mount the cassette on top of the side guides, the cassette is lifted to the correct height and then moved towards the side guides 8 into the direction of arrow 22. Referring to figure 4, the first connection part 20 of the cassette is then received into an opening 125, in the front of the side guide 8. The cassette now rests atop the side guides 8 while the left and right first connection parts 20 are within the side guides 8. In order to prevent the cassette from falling out to the front during further assembly the first connection parts 20 are provided with a spring connector 30, 31. The spring connector is best shown in Figures 3A-3C. Figure 3a shows the spring connector 30, 31 carried by a connecting element 17 of first connection part 20. The connecting element 17 is shaped as a generally rectangular

part having a base and outer and inner surface walls. In the base are a pair of a top and bottom through opening 38, 39 for receiving connection screws 36, 37 as shown in figure 3c. Between the top and bottom through opening a third opening which receives clip portion 30 of the spring connector. A pair of legs 31 extends from the lower end of the connecting element. The connecting element is attached to or integrally formed with the cassette 1. The clip portion 30 protrudes through the base of the connecting element and thus projects from the outer surface wall thereof. With the connecting element inserted into the side guide it is positioned inside the second channel 117 of the side guide between the inner and outer walls 121, 123 of that channel 117. Both of these inner and outer walls 121, 123 include a through opening in line with the installed clip portion 30. Figure 3A shows only opening 34 in the inner wall 121 of the second channel 117. Opposite this opening is another opening in which the clip 30 will snap secure the cassette from moving back out of the side guide. The clip 30 may be made of metal or any other suitable material. The legs 31 of spring connector 30, 31 can be moved towards the outer wall 123 of the second channel 117 of the side guide in the direction of arrow 35 to release the clip from its opening when it is desired to remove the cassette.

[0028] In line with the top and bottom through openings 38 and 39 of the connection element 17, the inner wall and outer walls of the second channel of the side guide include openings 32 and 33. After the clip 30 has secured the cassette in place, the connection is reinforced by affixing screws 36 and 37, as shown in figure 3c, by using for example a screw driver 40. The screws 36, 37 pass through openings 32 and 33 of the inner wall of the second channel of the side guide, then through the threaded openings 38, 39 of the connection element 17, then into the openings (not shown) in the outer wall of the second channel of the side guide. Thus the cassette is firmly secured atop the side guides.

[0029] Figure 4 illustrates a cross-section of the preferred embodiment of the side guide of the invention as well as a cover for the side guide. Side guide 8 is an elongated profile and includes a first elongated open channel 101 for guiding the side edges of the covering. The first channel 101 includes a first base or back wall 103 and a pair of parallel front and rear walls 105, 107 projecting from the base 103 and forming the channel opening 109. The rear wall 107 of the first channel has a U-shaped flange 111 having a closed base portion 113 and an opening facing the base surface 103 of the first channel. The front wall 105 ends in a small stepped portion 115. The side guide further includes a second channel 117 for receiving the connection portions 20 and/or connecting elements 17 of the cassette 2. The second channel includes a second base or back wall 119 and a pair of parallel second inner and outer walls 121, 123 projecting from the second base 119 and forming the second channel opening 125. The first base 103 of the first channel 101 and the second inner wall 121 of the

second base 119 coincide or are integrally formed as a single wall.

[0030] The side guide 8 can be provided with cover 52. Cover 52 is also shown in figure 4, and is a generally elongated profile 127 having a base 129 with front and rear surfaces 129A, 129B, an generally U-shaped flange 131 at an inner side edge 133 of the profile, a depending flange 135 at the outer side edge 137 of the profile and an elongated hooked flange 139 depending from the rear surface 129B of the base 129 adjacent the U-shaped flange 131. The U-shaped flange 131 of the cover is shaped similar to the U-shaped flange 111 of the first channel of the side guide. Upon assembly of the cover 52 to the side guide, the base of the cover closes the second channel of the side guide, while the U-shaped flange is oriented such that it can retain the rail 50 and the cushioning elements in the first channel of the side guide.

[0031] Installing the cover 52 onto the side guide 8 is facilitated in particular by hooked flange 139 engaging stepped portion 115 of the first front wall 105 of the first channel 101. Since the front wall projects 105 from and is connected to the base 103 the force of hook 139 of cover 52 engaging the stepped portion 115 of the front wall will be transmitted to the base 103. The base 103 coincides with inner wall 121 of the second channel and is a relatively free standing elongated portion of the side guide. Thus the base 103 and wall 121 will flex towards the outer wall 123. The flexing narrows the distance to be spanned by the cover for its depending flange 137 to snap into engagement with outwardly projecting edge 141 of the outer wall 123 of the second channel 117. This wall is a double wall as can be seen in and will not flex. The connection of the cover 52 to the side guide is secure. To release the same flexing of the inner wall 121 can be used. The assembly of the rail 52 and the cushioning elements 53-51 is further explained with respect to figures 5A-5F.

[0032] Figures 5A-5F illustrates how the rail 50 fits inside the side guide 8, and how a removable side guide cover 52 is attached.

[0033] Best shown in Figure 5F is the assembled situation where side guide 8 carries rail 50 in its first channel 101. The rail 50 is shown to have a base which will lie parallel to the base 103 of the first channel 101. Projecting from approximately the middle of the base is a rail channel portion. An opening in the rail channel portion is in the opening 109 of the first channel. A pair of elongated rear and front cushioning elements 51 and 53 are shown to rest on the base of the rail 50 on either side of the rail channel portion. The rear cushioning element thus held between the base of the rail 50 and the U-shaped flange 111 of the rear wall 107 of the first channel 101 of the side guide 8. It is also partly encompassed by the U-shaped flange 111. The front cushioning element 53 is held between the base of the rail 50 and the U-shaped flange 131 of the cover 52. Cushioning elements 51 and 53 are used so that the rail 50 is allowed restricted move-

ment. This restricted movement of the rail is to allow a smooth rolling and unrolling of the screen, while simultaneously keeping the advantage of preventing the screen from excessive movement, for example flapping in the wind. When pre-assembling the cushioning elements there is a choice to attach them to the rail base or the U-shaped flanges. In the figures it is shown that the cushioning elements are pre-assembled to the U-shaped flanges. As shown in Figures 5A-5D the cassette 2 has been mounted on top of the side guide 8 and rear cushioning element 51 is pre-assembled in U-shaped flange 111. Rail 50 is now placed inside the first channel 101 of the side guide 8. Figures 5B and 5E show the side guide cover part 52 with the pre-assembled cushioning element 53 in U-shaped flange 131 being moved into engagement with the side guide. In Figure 5E the hook 139 is shown into engagement with the stepped portion 115 of the rear wall 105 of the first channel of the side guide. By pushing U-shaped flange 131 of the cover in the direction of the outer wall 123 of the second channel 117 of the side guide, in the direction of arrow 53, the cover can with its depending flange 135 be snapped over end portion 141 of the outer wall 123 of the side guide. The side guide can be easily closed or opened, but will not inadvertently open by the forces of the wind action on the shade because these force will confirm the engagement of stepped portion 115 of wall 105 with hook 139 of the cover 52.

[0034] Figure 6 shows a cross section of the cassette 1 and cassette cover 2 in open (cf. figures 6A and 6C) and closed (cf. figures 6B and 6D) position. The first hinge part 60 on the cassette has a leg-like part 64 which, when the cassette cover 2 is in the closed state, presses against the cover 2 in direction of the cover as shown by arrow 66 (figure 5B), thus putting pressure on cover 2 from the inside of the cassette. This prevents the cover from rattling due to wind or vibrations during winding or unwinding of the screen which is an advantage with respect to hinge arrangements known from prior art. The pressure effect ensures positive closure of the leg 64 against cover surface 2, and as such also has the result that the cover connection is less penetrable for liquids, for example rain. Since the leg 64 effectuates positive closure against the cover thickness variations by the parts being painted or otherwise covered with a material with limited but non-negligible thickness, will be negated. The second hinge part 61 on the cover has a first protruding part 63 which is interlockable with the first hinge part 60, and a second protruding rounded edge-like part 65 which fits against a ledge-like part 69 on the first hinge part 60. The edge-like part 65 can rest against the ledge-like part 69 thus allowing the cassette cover to rotate from open state to closed state over a range of at least 90 degrees around an axis of rotation that is essentially lies inside and along the length of the edge-like part 69. This has the result that there is, with respect to hinges known from the prior art, a larger range of initial angles 68 between the cover 2 and the cassette that still result in an

connection between hinge parts 60 and 61 that can be closed, making it easier to attach the cover to the cassette. A further advantage of the hinge arrangement is that the hinge is not visible from the direction 67, which points toward the side of the cassette which is typically exposed in an installed covering arrangement.

[0035] Figure 7 shows a view of the roller 9 with the screen 5 attached to it. The screen has an essentially trapezium shape, with the top edge (attached to the roller) and the bottom edge (attached to the bar 6) forming essentially parallel lines, and the side edges with fastening elements 10 forming lines that diverge from each other in the direction of 7. The lines of the side edges thus make a relatively small angle β (typically between 5 and 10 degrees) with lines that are at right angles with the top and bottom edge lines. The fastening elements typically have a higher thickness than the screen material. When the screen is wound up around the roller 9, a covering arrangement where the screen is essentially rectangular will cause the fastening elements to be wound up on top of each other, giving rise to a thick bundle or band of fastening elements. Such a large step between the diameter of wound-up sheet and wound-up fastening elements can potentially cause wrinkles or even tearing in the sheet, or necessitate a larger cassette. A known approach to reduce this problem is to shape the roller with a constant diameter, except at the outer ends where the diameter is reduced. The numeral 80 designates such a section of reduced diameter. Still, in a covering arrangement using this approach the fastening elements will still be wound up essentially on top of each other. It is an advantage of the trapezium shape that the fastening elements in wound-up state will be more uniformly spread over a width, in longitudinal direction along the roller axis. The width can be calculated as the length of the screen (in direction 7) times the sine of angle β . It is clear to a skilled person that the trapezium shaped screen can be used with a roller with or without a reduced diameter at the ends.

[0036] It is also clear to a skilled person that in another embodiment of the invention, an arrangement as above, but with the side edges forming lines that diverge from each other in the direction opposite to direction 7 will give similar advantages as described above.

[0037] Although the invention has been described with reference to specific embodiments thereof, it will be appreciated that invention is not limited to these embodiments and that changes and modifications to the system and method described herein may be made without departing from the invention.

[0038] Figure 8A-8C show alternative embodiments for the side guide and the connection means which are similar to the side guide and connection means as shown in figures 1-4 and for which corresponding reference numerals (greater by 100, 200 and 300) are used below for describing the same parts or corresponding parts.

[0039] Figure 8A shows the removable cover 102 of the cassette with depending first connection part 120 po-

sitioned adjacent opening 225 of side guide 108 by which the first connection part 120 is to be received into second channel 217 upon mounting the cassette atop the side guide 108. Connection part 120 has an integral cover plate 171 which will cover opening 225. The side guide 108 includes a first elongate channel 201 for guiding the side edges of the covering. The first channel 201 includes a first base or back wall 203 and a pair of parallel front and rear walls 205, 207. The side guide further has a second channel 217 for receiving the connection portion 120 and/or connection elements 117 of the cassette. The second channel has a second back base or back wall 219 and a pair of parallel second inner and outer walls 221, 223. The second inner wall 221 coincides with the first base 203 of the first channel. As can be seen instead of being an elongated opening the opening 225 for entering the second channel 217 is a cutout portion large enough to receive the connection portion 120.

[0040] Figure 8B shows how the connection portion 220 is hingedly connected to the cassette cover 202. The side guide 208 includes a first channel 301 a first base or back wall 303 and a pair of parallel front and rear walls 305, 307. The side guide further has a second channel 317 for receiving the connection portion 220 and/or connection elements 217 of the cassette. The second channel has a second back base or back wall 319 and a pair of parallel second inner and outer walls 321, 323. The second inner wall 321 coincides with the first base 303 of the first channel. The opening 325 for receiving the connection portion 220 is in the second inner wall 321 and first base 303. The connection portion 220 swings through the first channel 301, through opening 325 and settles within the second channel 317.

[0041] Figure 8C shows connection portion 320 on cassette cover 302 to be in the shape of a holding ring 373. The second channel 417 of the side guide 308 slidably holds a connection rod 375. Upon mounting of the cassette atop the side guide 308, connection rod 375 is slid up and into engagement with the holding ring 373. The side guide 308 includes a first channel 401 a first base or back wall 403 and a pair of parallel front and rear walls 405, 407. The second channel 417 has a second back base or back wall 419 and a pair of parallel second inner and outer walls 421, 423. The second inner wall 421 coincides with the first base 403 of the first channel.

Claims

1. An architectural covering arrangement, comprising:
 - a cassette (1) for housing a covering (5) for an architectural opening, from which cassette (1) the covering (5) can be extended across the architectural opening or retracted back into the cassette (1) in a first plane; and
 - at least one side guide (8) comprising an elongated profile having a top end;

characterized in that:

- said at least one side guide (8) is constructed and arranged such that the cassette (1) can be mounted atop the top end of the side guide (8) by moving said cassette (1) from a second plane parallel to the first plane and in a first direction that is generally towards the first plane, the at least one side guide (8) comprising an elongated profile with a first open channel section (101) defining an elongated opening for guiding a side of the covering (5), and with a second channel section (117) including a second opening (125) oriented perpendicular with respect to the elongated opening of the first channel section (101).
2. The architectural covering arrangement according to claim 1, wherein the second opening (125) is an elongated opening extending along the length of the profile.
 3. The architectural covering arrangement of claims 1 or 2, wherein the first channel section (101) comprises a generally U-shaped profile having a first back surface and a pair of first front and rear side walls extending from said back surface and defining said first opening.
 4. The architectural covering arrangement of claim 2, wherein the second channel section (117) comprises a generally U-shaped profile having a second back surface and a pair of second inner and outer side walls extending from said back surface and defining said second opening.
 5. The architectural covering arrangement of claims 3 and 4 wherein said first back surface of the first channel section (101) coincides with the inner wall of the second channel section (117).
 6. The architectural covering arrangement according to any of the claims 1 to 5, wherein the cassette (1) comprises a first connection part (20) insertable into the second channel section (117) by the second opening (125) of the side guide in the first direction and the first connection part (20) and the side guide are connectable to affix the cassette (1) to the side guide (8).
 7. The architectural covering arrangement of claim 1 wherein the at least one side guide (8) includes a cover (52) to close the second opening (125).
 8. The architectural covering arrangement of claim 7, wherein the first channel section (101) comprises a generally U-shaped profile having a first back surface and a pair of first front and rear side walls extending from said back surface and defining said first opening and the second channel (117) comprises a generally U-shaped profile having a second back

surface and a pair of second inner and outer side walls extending from said back surface and defining said second opening (125) and wherein the first back surface of the first channel section (101) coincides with the inner wall of the second channel section (117).

9. The architectural covering arrangement of claim 8, wherein the cover (52) comprises an elongated base with inner and outer edges and a depending flange at the outer side edge and a depending hooked flange at or adjacent the inner side edge, such that upon assembly of the cover (52) to the side guide profile the hooked flange engages the front side wall of the first channel section (101), spans the second channel section (117) and the depending flange engages the outer wall of the second channel section (117).

Patentansprüche

1. Architektonische Abdeckung, umfassend:

- eine Kassette (1) zum Aufnehmen einer Abdeckung (5) für eine architektonische Öffnung, wobei von der Kassette (1) die Abdeckung (5) über die architektonische Öffnung erweitert oder zurück in die Kassette (1) in einer ersten Ebene zurückgezogen werden; und
- mindestens eine Seitenführung (8), die ein längliches Profil umfasst, das ein oberes Ende hat;

dadurch gekennzeichnet, dass:

die mindestens eine Seitenführung (8) konstruiert und angeordnet ist, sodass die Kassette (1) auf dem oberen Ende der Seitenführung (8) durch Bewegen der Kassette (1) von einer zweiten Ebene parallel zu der ersten Ebene und in eine erste Richtung, die im Allgemeinen zu der ersten Ebene ist, montiert sein kann, wobei die mindestens eine Seitenführung (8) ein längliches Profil mit einem ersten offenen Kanalabschnitt (101), der eine längliche Öffnung zum Führen einer Seite der Abdeckung (5) definiert, und mit einem zweiten offenen Kanalabschnitt (117) einschließlich einer zweiten Öffnung (125), die senkrecht in Bezug auf die längliche Öffnung des ersten Kanalabschnitts (101) ausgerichtet ist, umfasst.

2. Architektonische Abdeckungsanordnung nach Anspruch 1, wobei die zweite Öffnung (125) eine längliche Öffnung ist, die sich entlang der Länge des Profils erstreckt.
3. Architektonische Abdeckungsanordnung nach Ansprüchen 1 oder 2, wobei der erste Kanalabschnitt (101) ein im Allgemeinen U-förmiges Profil umfasst, das eine erste Rückseite und ein Paar erster vorde-

rer und hinterer Seitenwände hat, die sich von der Rückseite erstrecken, und die erste Öffnung definiert.

4. Architektonische Abdeckungsanordnung nach Anspruch 2, wobei der zweite Kanalabschnitt (117) ein im Allgemeinen U-förmiges Profil umfasst, das eine zweite Rückseite und ein Paar zweiter innerer und äußerer Seitenwände hat, die sich von der Rückseite erstrecken, und die zweite Öffnung definiert. 5
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5. Architektonische Abdeckungsanordnung nach Ansprüchen 3 und 4, wobei die erste Rückseite des ersten Kanalabschnitts (101) mit der Innenwand des zweiten Kanalabschnitts (117) übereinstimmt. 15
6. Architektonische Abdeckungsanordnung nach einem der Ansprüche 1 bis 5, wobei die Kassette (1) einen ersten Verbindungsteil (20) umfasst, der in den zweiten Kanalabschnitt (117) durch die zweite Öffnung (125) der Seitenführung in der ersten Richtung einführbar ist, und wobei der erste Verbindungsteil (20) und die Seitenführung verbindbar sind, um die Kassette (1) an der Seitenführung (8) zu befestigen. 20
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7. Architektonische Abdeckungsanordnung nach Anspruch 1, wobei die mindestens eine Seitenführung (8) eine Abdeckung (52) beinhaltet, um die zweite Öffnung (125) zu schließen.
8. Architektonische Abdeckungsanordnung nach Anspruch 7, wobei der erste Kanalabschnitt (101) ein im Allgemeinen U-förmiges Profil umfasst, das eine erste Rückseite und ein Paar erster vorderer und hinterer Seitenwände hat, die sich von der Rückseite erstrecken, und die erste Öffnung definiert, und der zweite Kanal (117) ein im Allgemeinen U-förmiges Profil umfasst, das eine zweite Rückseite und ein Paar zweiter innerer und äußerer Seitenwände hat, die sich von der Rückseite erstrecken, und die zweite Öffnung (125) definiert, und wobei die erste Rückseite des ersten Kanalabschnitts (101) mit der Innenwand des zweiten Kanalabschnitts (117) übereinstimmt. 30
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9. Architektonische Abdeckungsanordnung nach Anspruch 8, wobei die Abdeckung (52) eine längliche Basis mit inneren und äußeren Kanten und einem abhängigen Flansch an der äußeren Seitenkante und einem abhängigen hakenförmigen Flansch an oder benachbart zu der inneren Seitenkante umfasst, sodass bei der Montage der Abdeckung (52) an dem Seitenführungsprofil der hakenförmige Flansch in Eingriff mit der vorderen Seitenwand des ersten Kanalabschnitts (101) ist, den zweiten Kanalabschnitt (117) überspannt und der abhängige Flansch in Eingriff mit der Außenwand des zweiten Kanalabschnitts (117) ist. 50
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Revendications

1. Agencement de couverture architecturale, comprenant :

- une cassette (1) pour loger une couverture (5) pour une ouverture architecturale, à partir de laquelle cassette (1) la couverture (5) peut être étendue sur l'ouverture architecturale ou rétractée dans la cassette (1) dans un premier plan ; et
- au moins un guidage latéral (8) comprenant un profilé allongé ayant une extrémité supérieure ;

caractérisé en ce que :

ledit au moins un guidage latéral (8) est construit et agencé de telle sorte que la cassette (1) puisse être montée par-dessus l'extrémité supérieure du guidage latéral (8) en déplaçant ladite cassette (1) depuis un second plan parallèle au premier plan et dans une première direction qui est généralement vers le premier plan, l'au moins un guidage latéral (8) comprenant un profilé allongé avec une première section en U ouverte (101) définissant une ouverture allongée pour guider un côté de la couverture (5), et avec une seconde section en U (117) incluant une seconde ouverture (125) orientée perpendiculairement par rapport à l'ouverture allongée de la première section en U (101).

2. Agencement de couverture architecturale selon la revendication 1, dans lequel la seconde ouverture (125) est une ouverture allongée s'étendant le long de la longueur du profilé. 30
3. Agencement de couverture architecturale selon les revendications 1 ou 2, dans lequel la première section en U (101) comprend un profilé généralement en forme d'U ayant une première surface arrière et une paire de premières parois latérales avant et arrière s'étendant depuis ladite surface arrière et définissant ladite première ouverture. 35
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4. Agencement de couverture architecturale selon la revendication 2, dans lequel la seconde section en U (117) comprend un profilé généralement en forme d'U ayant une seconde surface arrière et une paire de secondes parois latérales intérieure et extérieure s'étendant depuis ladite surface arrière et définissant ladite seconde ouverture. 45
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5. Agencement de couverture architecturale selon les revendications 3 et 4, dans lequel ladite première surface arrière de la première section en U (101) coïncide avec la paroi intérieure de la seconde section en U (117). 55
6. Agencement de couverture architecturale selon l'une quelconque des revendications 1 à 5,

dans lequel la cassette (1) comprend une première partie de raccordement (20) insérable dans la seconde section en U (117) par l'intermédiaire de la seconde ouverture (125) du guidage latéral dans la première direction et la première partie de raccordement (20) et le guidage latéral sont raccordables pour fixer la cassette (1) au guidage latéral (8).

7. Agencement de couverture architecturale selon la revendication 1, dans lequel l'au moins un guidage latéral (8) inclut un couvercle (52) pour fermer la seconde ouverture (125). 5 10
8. Agencement de couverture architecturale selon la revendication 7, dans lequel la première section en U (101) comprend un profilé généralement en forme d'U ayant une première surface arrière et une paire de premières parois latérales avant et arrière s'étendant depuis ladite surface arrière et définissant ladite première ouverture et la seconde section en U (117) comprend un profilé généralement en forme d'U ayant une seconde surface arrière et une paire de secondes parois latérales intérieure et extérieure s'étendant depuis ladite surface arrière et définissant ladite seconde ouverture (125) et dans lequel le première surface arrière de la première section en U (101) coïncide avec la paroi intérieure de la seconde section en U (117). 15 20 25
9. Agencement de couverture architecturale selon la revendication 8, dans lequel le couvercle (52) comprend une base allongée avec des bords intérieur et extérieur et une bride dépendante au bord latéral extérieur et une bride à crochet dépendante au bord latéral intérieur, ou adjacente à ce dernier, de telle sorte que, lors de l'assemblage du couvercle (52) sur le profilé de guidage latéral, la bride à crochet entre en prise avec la paroi latérale avant de la première section en U (101), couvre la seconde section en U (117) et la bride dépendante entre en prise avec la paroi extérieure de la seconde section en U (117). 30 35 40

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Fig.1a.

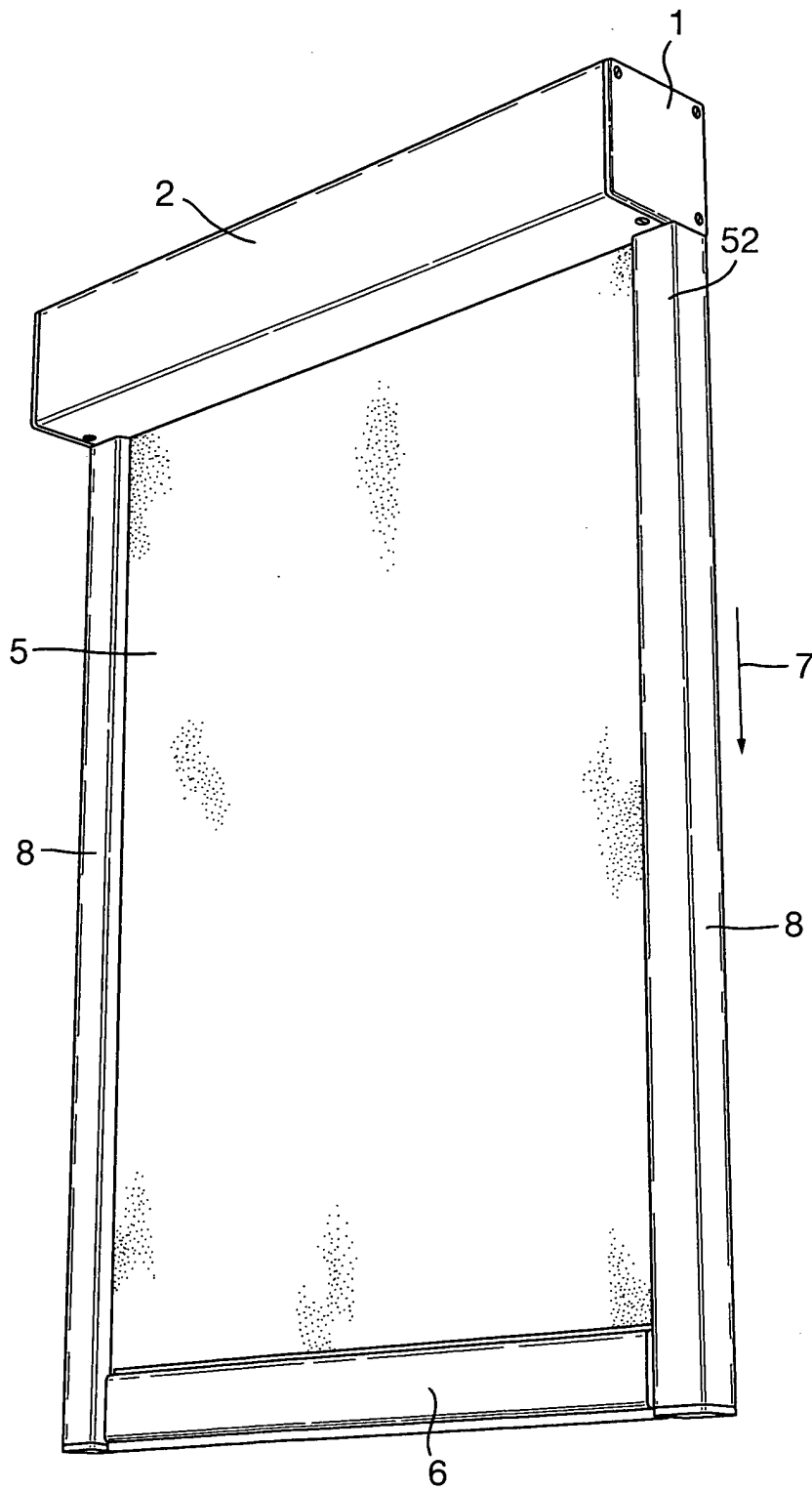


Fig.1b.

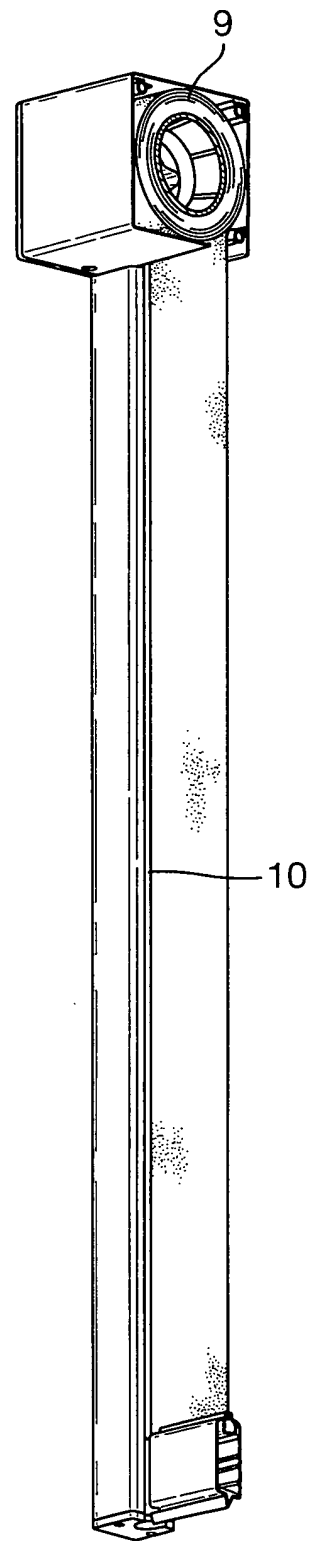


Fig.2a.

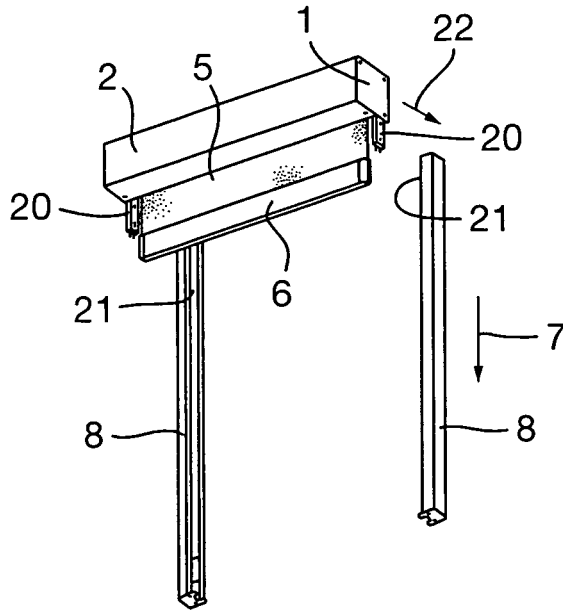


Fig.2b.

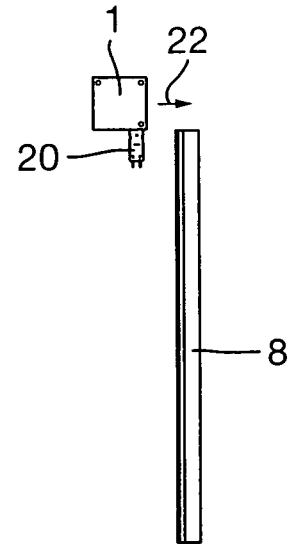


Fig.2c.

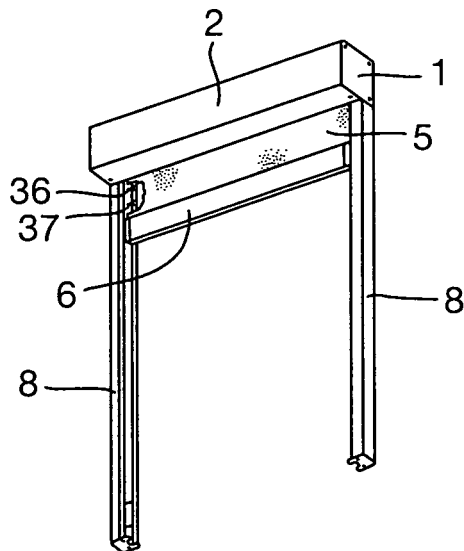


Fig.3a.

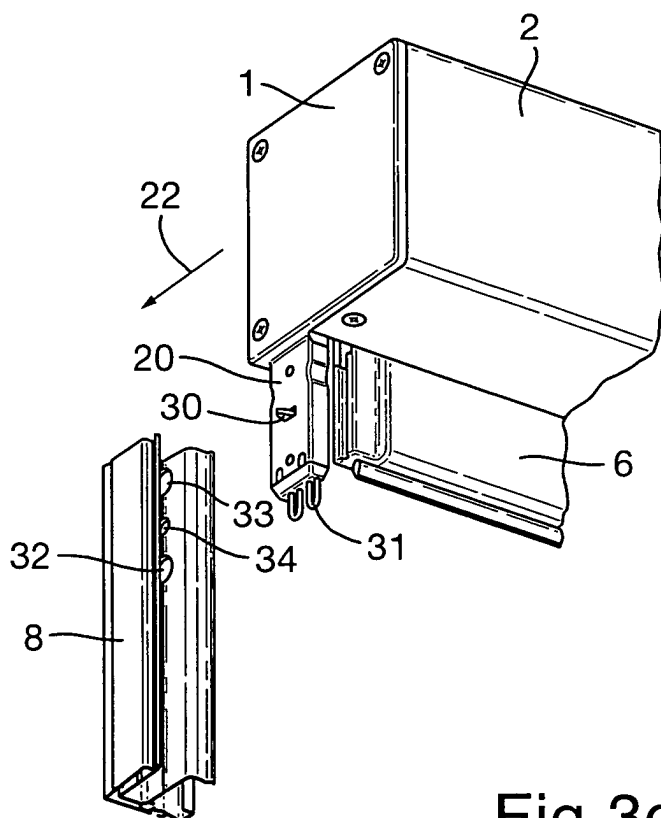


Fig.3b.

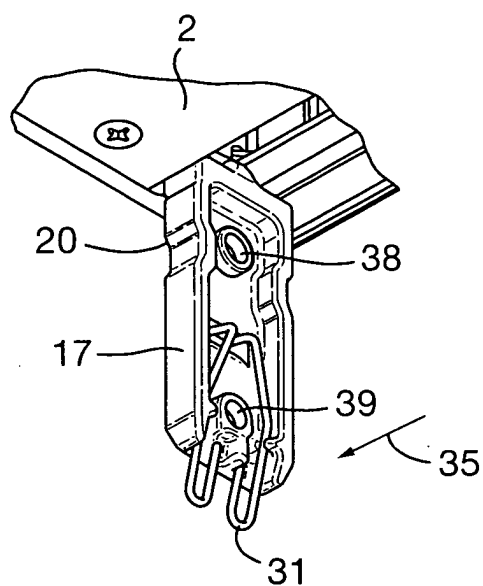


Fig.3c.

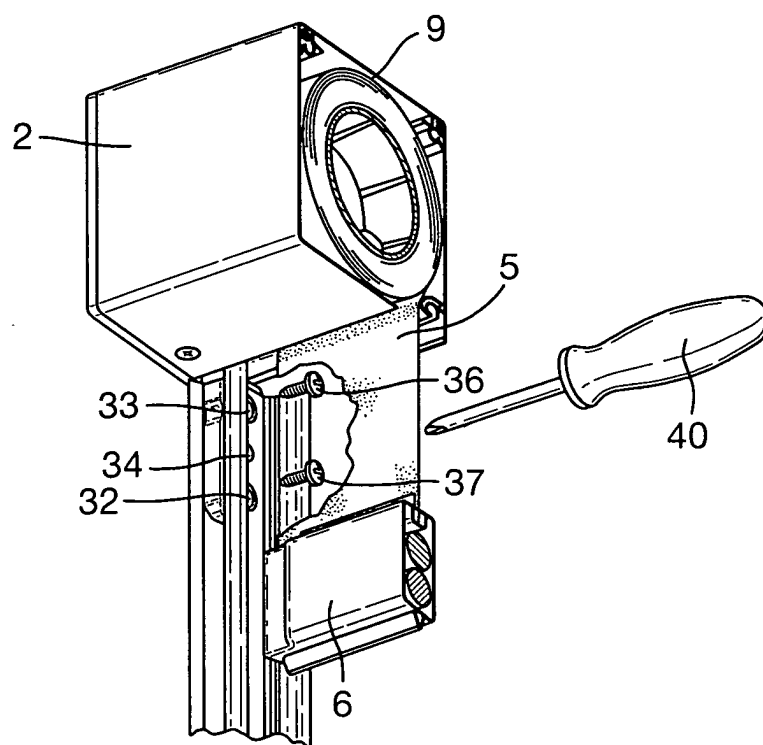


Fig.4.

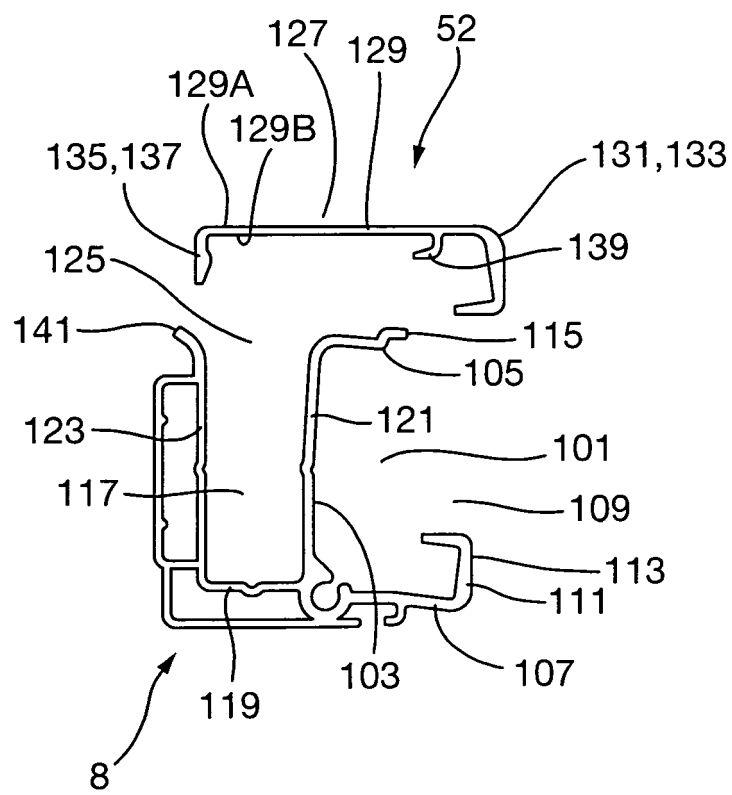


Fig.5a.

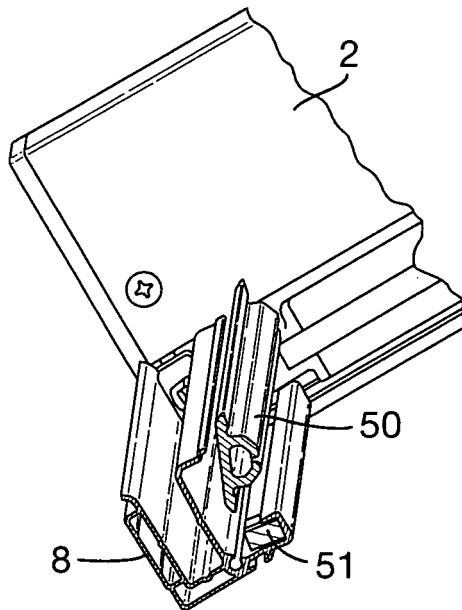


Fig.5b.

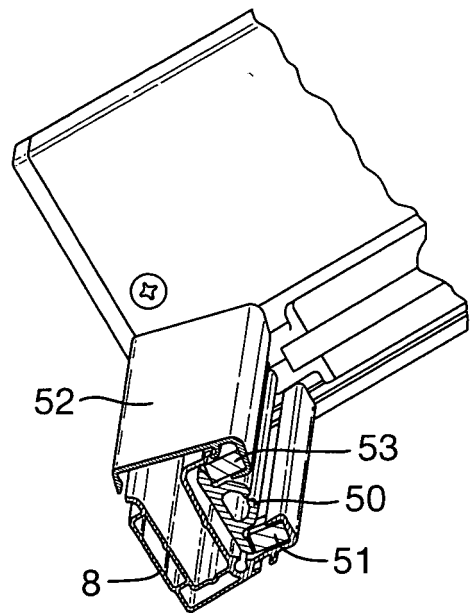


Fig.5c.

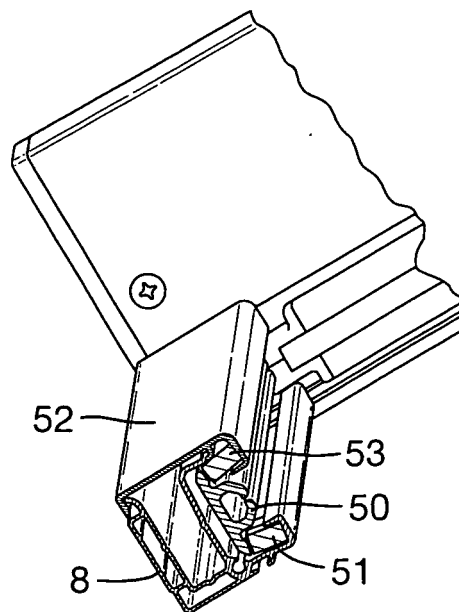


Fig.5d.

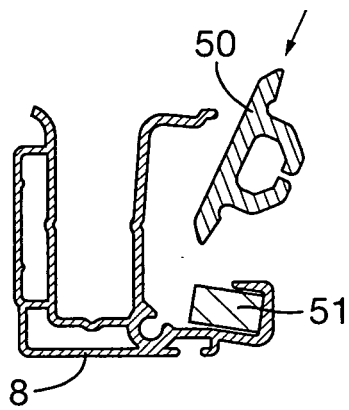


Fig.5e.

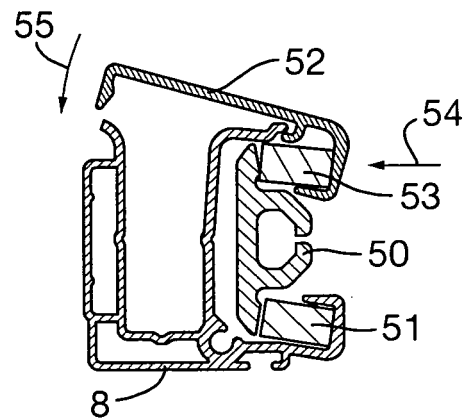


Fig.5f.

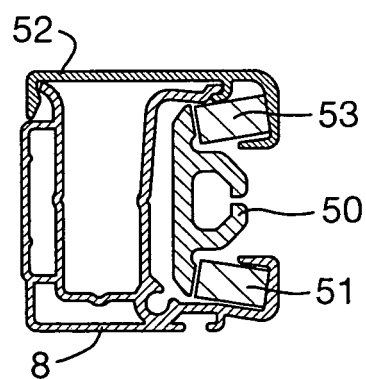


Fig.6a.

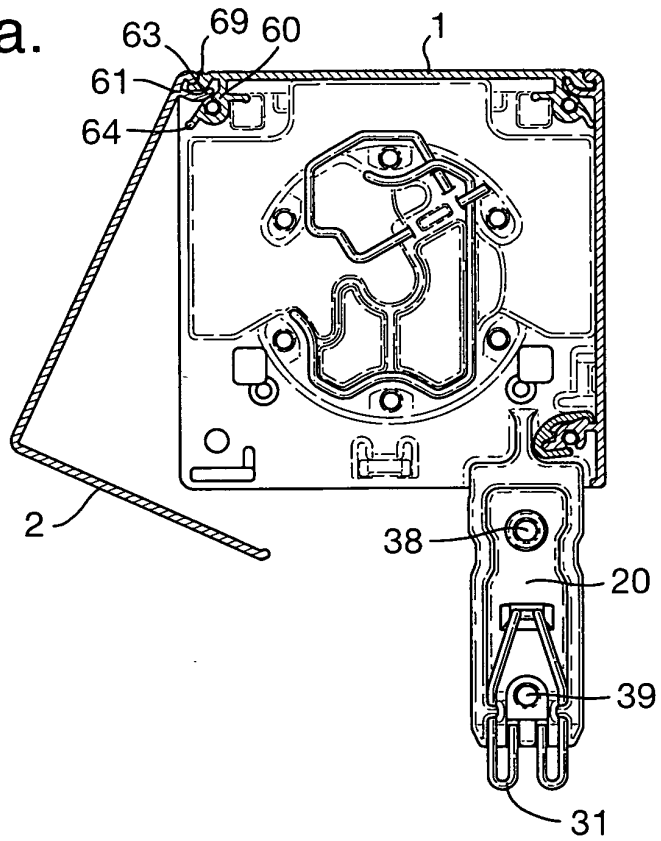


Fig.6b.

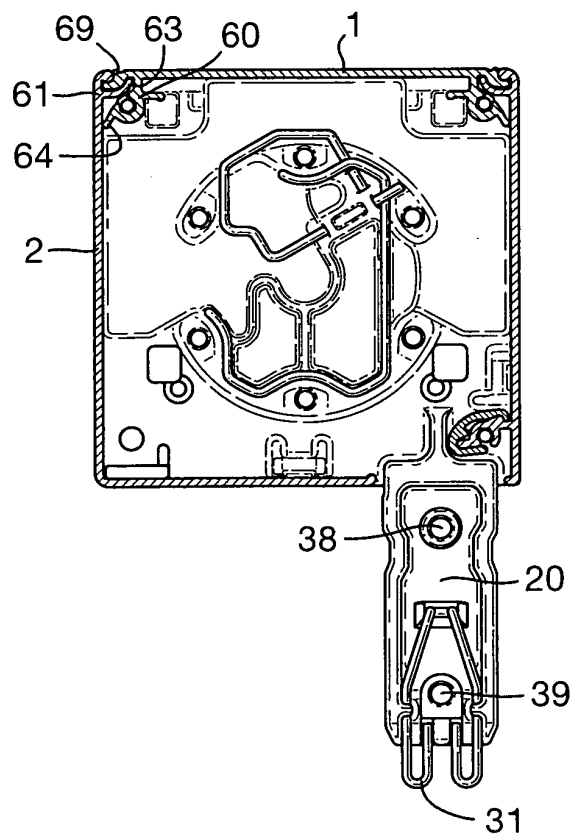


Fig.6c.

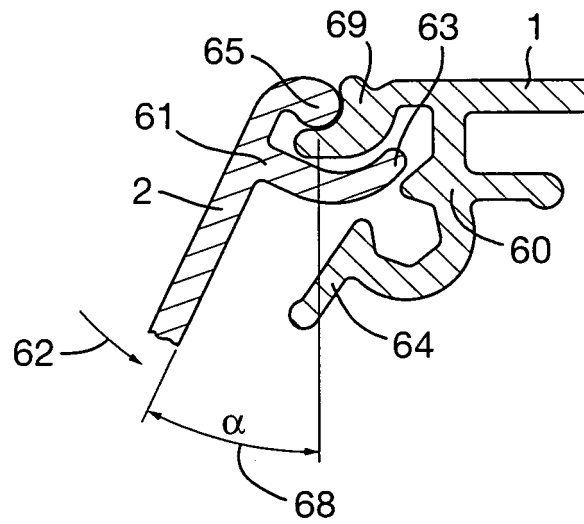


Fig.6d.

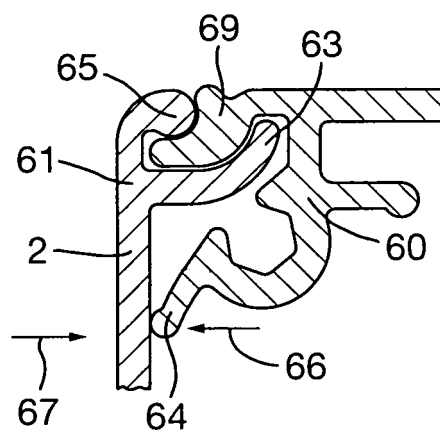


Fig.7.

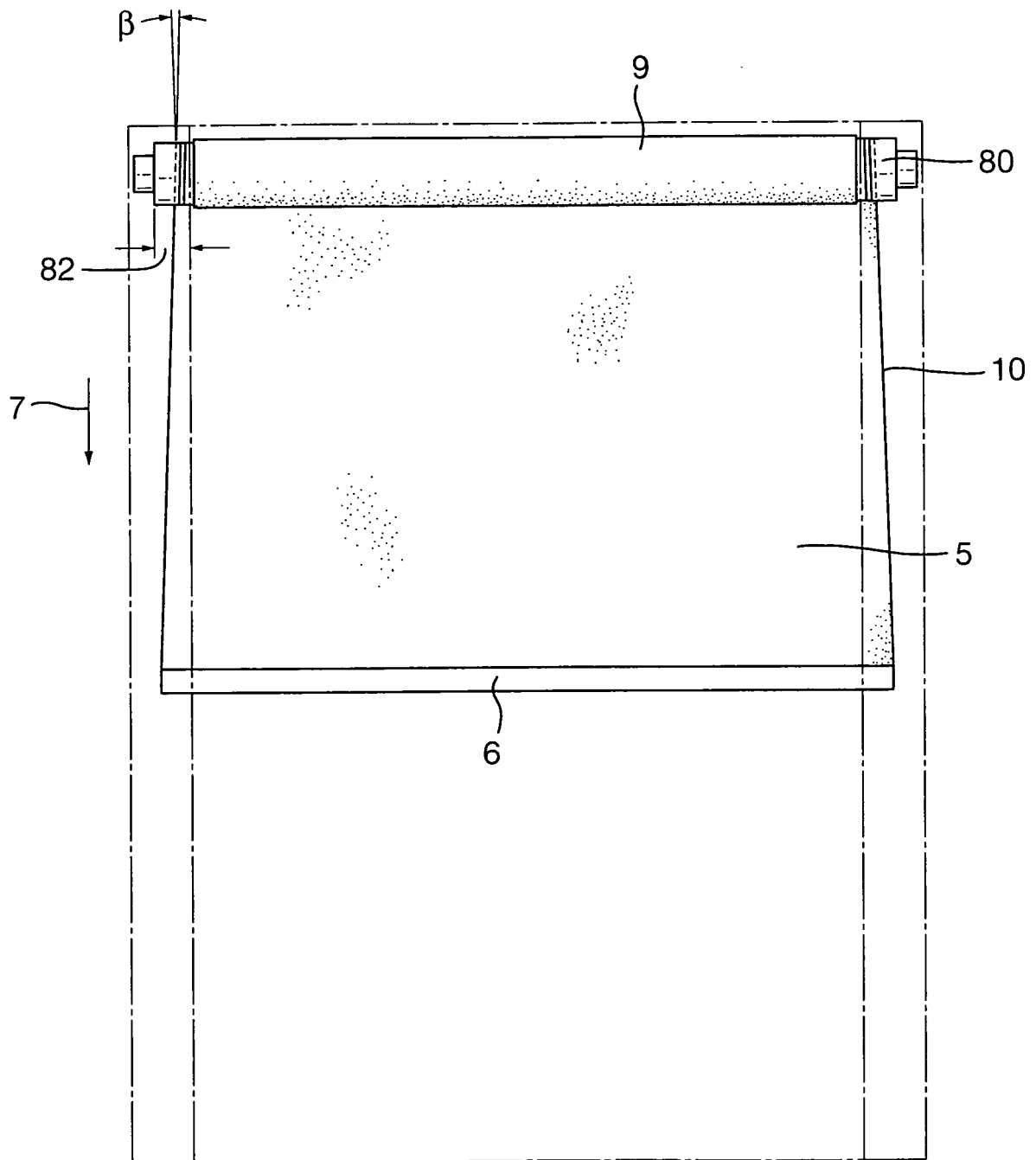


Fig.8a.

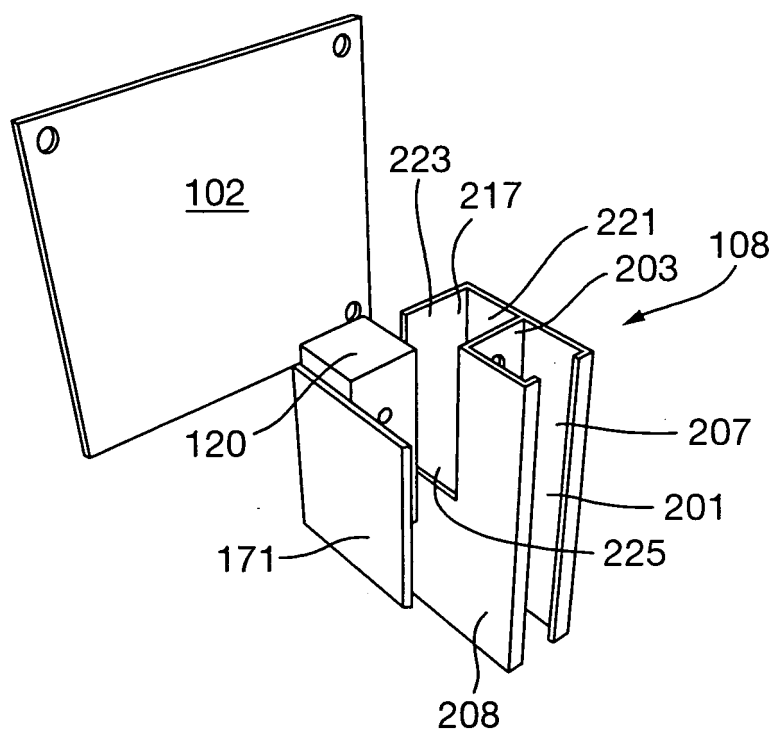


Fig.8b.

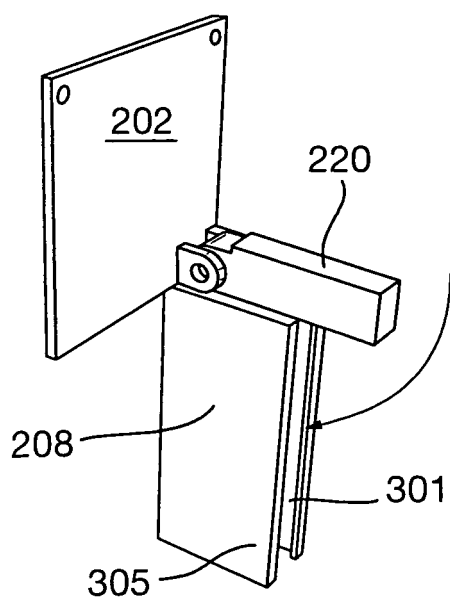
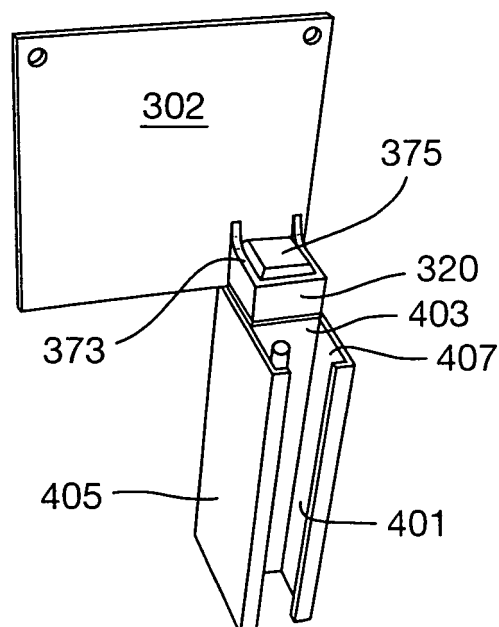


Fig.8c.



REFERENCES CITED IN THE DESCRIPTION

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