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(54) **Blind with folding guides**

(57) The present invention refers to a blind with folding guides that is, a roller blind, of the type commonly known as "Italian" in which a significant part of the blind, when it is extended, may be projected frontally to constitute a type of awning which improves ventilation conditions of the room where the blind is installed, maintaining its sun barrier effect in such a way that a marked structural simplification of the blind is achieved along with a substantial improvement in the properties of said blind, in addition to enabling the conversion of a conventional blind with fixed guides into a folding blind by using an alignment profile which is provided centred on one of its arms tow parallel partitions oriented oriented outwards which permits the alignment of the symmetrical axes of both guides, ensuring that the blind's movement is not changed.

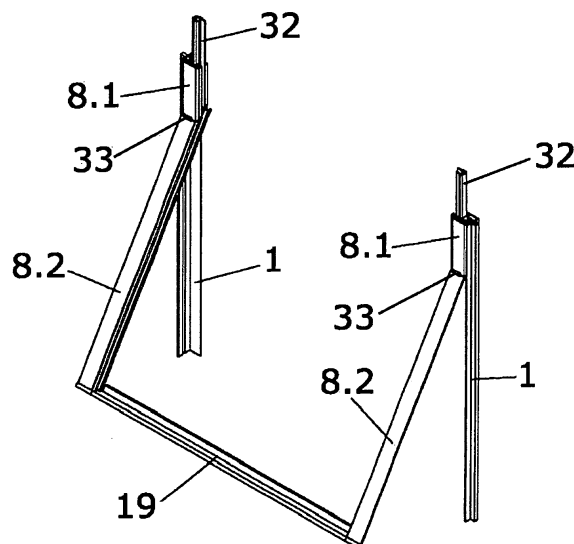


FIG.1

Description

OBJECT OF THE INVENTION

[0001] The present invention refers to a blind with folding guides that is, a roller blind, of the type commonly known as "Italian" in which a significant part of the blind, when extended, can be projected frontally in order to form a type of awning which improves the ventilation conditions of the room where the blind is fitted, maintaining its sun barrier effect.

[0002] The object of the invention is to obtain a considerable structural simplification of the blind, along with a substantial improvement in the blind's properties.

[0003] In addition, the invention also enables a conventional blind with fixed guides, to convert into a folding blind by using an alignment profile which presents, centred on one of its arms, two parallel partitions oriented externally which permit the alignment of the symmetrical axes of both guides, ensuring that the blind's movement is not altered.

[0004] The invention is therefore situated within the scope of the blind manufacturing industry.

BACKGROUND TO THE INVENTION

[0005] As is known blinds with folding guides base their characteristics on the fact that said guides instead of comprising a single piece, which is rectilinear and fixed, that is, joined solidly to the frame throughout its extension, are fragmented in two parts one upper part which is that which is fixed to the frame and another lower part swinging with respect to the first part, which enables transmission of this swinging movement to the blind overall. In this way the blind may be used within a vertical plane, just like any conventional blind, however, in addition it may also present a wide divergent sector downwards and outwards, creating a type of awning with wide lateral openings.

[0006] This type of blind is structured by means of profiles and fittings which determine a complex adaptation to present window systems and designs with the consequent manpower required as well as the cost this entails. More specifically, in order to join the door or window frame profile to the blind guide profile, two connection bolts are used, one is inserted in the casing and needs to be mechanised and with the incorporation of elements of additional contention of the slats, and another which is situated between the frame profile and the guide profile. Logically, this casing modification has a negative effect on the supply and assembly operations involved in setting up the blind as the discount tables are changed, that is, the configuration of the parameters for manufacturing the slats.

[0007] The mechanisms for folding the guides are voluminous, reducing the interior lighting of the door or window. The padded strips used to prevent metal elements rubbing against each other, that is, between the guides

and the blind slats are fixed by means of adhesive, so that they tend to come unstuck over time, preventing the blind from running smoothly. The screws fixing the various elements comprising the system overall are exposed with subsequent and negative repercussions in aesthetic terms. If the maximum amount of light is to be achieved in the door or window space, the scant separation between the swinging profile, the guide profile and the wall is so reduced that if the wall is in any way irregular there is a risk of collision.

[0008] The blind profiles and those pertaining to the door or window are connected by means of tubular members screwed to both structures, which requires considerable manpower, time and material. The section of the slats inserted in the guide profiles is small which in the event of buffeting by wind the fabric of the slats comes out of the guide and is at the mercy of the wind which can effectively destroy it.

[0009] The bolts for attaching the blind guides are situated on the upper part of the lower profiles, and therefore require additional work which also has a negative impact on costs. In addition, when a new blind with folding guides is installed, there is no problem in this respect, however, it is frequently necessary to convert a fixed guide blind into a blind with folding guides. In these cases the fixed guides are commonly dismantled and replaced with folding guides.

[0010] Apart from the fact that this replacement task is complex and laborious, it is often practically impossible, such as for example when the guides are integrated in the profile of the door or window frame in question when they are also integrated in the winding case of the blind as in the case of compact blinds in which the window, blind and case make up a single unit which comes manufactured directly from the factory.

[0011] In these cases the necessary conversion is so complicated that it is not a viable operation.

DESCRIPTION OF THE INVENTION

[0012] The blind with folding guides proposed in this invention has been conceived and structured in order to resolve in a satisfactory manner the aforementioned problem, resulting in easy fitting to the different types of windows and doors on the market, both in the case of compact windows, in which the blind comes ready mounted from the factory, or those of the type which is assembled on site, both when the case housing the blind projects outwards or inwards from the space or opening of the door or window.

[0013] In a more specific manner, and in accordance with one of the characteristics of the invention, the blind which is the subject of this invention uses a single connection bolt between the frame profile and the guide profile of the blind, specifically in the upper fixed part thereof, which ensures connection of the profiles and provides rigidity required in the guide profile when it is open or projected.

[0014] The bolt has a chamfer at its lower end, which coincides in extension and arrangement with the approximate form of the guide profile which links the fixed and mobile part thereof.

[0015] The upper part of the bolt has a recess which is accessed from above where the classic projection of the standard casing is inserted, which does not require any type of modification, and in which the blind is wound and is joined by screwing forming a single rigid body.

[0016] The bolt is fixed by internal screws to the profiles which link, that is, to the frame profile and to the guide profile, so that the screws are not visible.

[0017] The guide profile and the frame profile form a group which in the way it has been conceived is smaller than those already known, and thus an increase in indoor light and ventilation of the premises is obtained.

[0018] The guide profile adopts a "U" section determining a channel or interior section to enable the ends of the blind slats to slide. This channel has a marked depth for housing in its interior a larger section of the slat and a plug which holds it and provides the necessary security, thus preventing the blind from coming out of the guide and when buffeted by the wind.

[0019] The guide profile is provided at its free end with facing grooves to hold the padded strips. These padded strips are not attached to the guide profile with adhesives as in the conventional manner, but are bent at their projecting ends and are fixed by means of pressure elements recessed in cavities provided for this effect, ensuring its perfect operation by preventing it from becoming an obstacle in the blind's movement.

[0020] The guide profile shall be provided with an external groove for a rubber strip which acts as a buffer between the profiles and the closing element of the guide profile and which absorbs the disparities in assembly and provides optimum pressure when the blind is closed which prevents vibrations and whistling through contact with the air. Together with the groove described, there is a groove with a larger perimeter which enables reinforcement bolts to be used and placed at any height of the blind, and which are used to ensure a perfect closure when there is no access to the lower part of the blind. The separation between the swinging profile or the guide profile and the wall determine that the swinging thereof may be made without the slightest risk of collision between elements, profile and wall.

[0021] The guide profile and the frame profile are provided with projections and recesses which face each other which, when the apparatus is assembled, permit the centring of the axes of the supports of the holding arm in both profiles. These recesses facilitate the work of perforation during installation and conceal connection elements for the arm supports and the connection hinge, facilitating alignment of the symmetrical axes of both profiles, which prevents errors of connection which could result in the blind not functioning properly.

[0022] The frame profile may be provided externally with two grooves or channels with a strangulated opening

which enables conventional adaptor profiles to be fitted, the length of which will depend on the width of the wall and will facilitate the installation by joining the blind structure to the window structure when these need to be separate. The adaptor profile is housed in the innermost groove when the blind's belt winder is embedded in the blind structure and is placed in the outermost groove when the belt winder is folding and overlapboltg.

[0023] When the casings are located externally the frame profile is extended above in order to enter into contact with the whole surface of the box, to which it is joined by screws providing the system with greater rigidity as it forms a single body.

[0024] The structure described is complemented with a profile or lower crosspiece which joins the two blind guides by using respective lower connection bolts, and said profile incorporates at least one bolt which is easy to install as it does not require any additional mechanisation, which is concealed as it is inserted in its structure, that is, below the closure profile, without affecting the aesthetic aspect of the window. The profile incorporates at its lower end, a groove for inserting a padded strip which prevents light from entering. This lower profile is low in height which enables more light to enter through the window or door and improves ventilation.

[0025] The lower mobile part and the two guide profiles which constitute in turn the mobile or swinging part of the blind, are linked through their lower end by means of a crosspiece which acts in distancing and making it more rigid.

[0026] It is important to indicate the possibility of integrating with a single piece, the adaptor profile with the window profile, whether this is folding or sliding, comprising an integral universal blind thus obtaining important time saving during manufacture of the window.

[0027] The invention also enables a conventional blind with fixed guides to convert into a folding blind by using an alignment profile which has centred on one of its arms two parallel partitions oriented outwards which permits the alignment of the symmetrical axes of both guides ensuring that the blind's movement is not changed.

[0028] In addition, the frame profile may form a unit jointly with the corresponding window or door, configuring an assembly unit which comes finished from the factory to be assembled directly on site.

[0029] In accordance with another of the characteristics of the invention, in the upper part of the guide profile, that is in the fixed part, or throughout its extension, a connection profile is established in its groove which projects upwards with respect to the guide profile in order to access the interior of the case and to serve as a guide for the new slats which will be those already existing cut to the appropriate length, according to the distance between the original guides and the new guides.

[0030] In this way the conversion structure of the blind is materialised as an accessory to the fixed pre-existing guides which only require a bolting or screwing operation, a slat cutting operation to the new length required and

the arrangement on the winding shaft of the existing blind in the corresponding box, of the classic discs which function as an adjustable stop to avoid undesirable longitudinal movements of the slats.

[0031] The blind presents a horizontal profile joining the swinging profiles of both sides of the blind which houses an accessible bolting mechanism from the central part thereof, in such a way that this profile enables blocking of the blind to the frame profile including in those cases in which the sides of the blind are not accessible due to the presence of window frames.

[0032] This horizontal profile may be placed at any height of the swinging profile which enables blocking of the blind in the case of lower window frames and blinds with obstacles on ledges.

[0033] Finally, there is a possibility of the blind having at least one standard, mechanical, gas projection arm or any other type of arm which will facilitate positioning and selection of the opening angle of the blind.

DESCRIPTION OF THE DRAWINGS

[0034] In order to complement the description herein and in order to assist in comprehending the characteristics of the invention, in accordance with various practical examples of preferred embodiments, as an integral part of said description a set of drawings is included which are illustrative but in no way restrictive, represented as follows:

Figure 1 shows a perspective view of the folding blind of the present invention.

Figure 2 shows a ground plan and in transversal section of a blind with folding guides in accordance with the present invention at a level of one of said guides of the complementary frame, and of the bolt linking them and the window profile with its corresponding adaptor.

Figure 3 shows a perspective diagram of the previous Figure 30 in which the window profile and the corresponding adaptor profile has been eliminated.

Figure 4 shows a perspective detail of the upper bolt connection, of the bolt for joining the lower profile which links the two guides and the lower bolt for blocking said guides.

Figure 5 shows a similar perspective to the previous Figure on the opposite side of the three aforementioned parts.

Figure 6 shows, according to a representation similar to that of Figure 1, a variant of the embodiment in which the adaptor profile appears integrated in the frame profile in the folding window.

Figure 7 shows a representation similar to that of Figure 5, in which the adaptor profile appears integrated in the frame profile of a window with sliding panes.

Figure 8 shows a representation similar to that of Figures 2, 6. and 7 corresponding to a double blind.

Figure 9 shows a ground plan and transversal section corresponding to a structure for converting a blind.

Figure 10 shows a ground plan and transversal section corresponding to another structure for converting a blind.

Figure 11 shows a partial perspective and section view of the of the basic profiling involved in a blind in which the frame profile forms a joint unit with the corresponding window or door.

Figure 12 shows a ground plan detail in section of the group represented in the previous Figure.

Figure 13 shows a representation similar to that of Figure 12, in which the frame profile integrates the profile of the door or window, in the event that this is of the type with folding slats.

Figure 14 shows a representation similar to that of Figure 13, however, corresponding to the case in which the door or window has sliding panes.

Figure 15 shows a particular case of Figure 12 in which there is a breakage of the thermal bridge in the frame profile due to polyamide profiles or similar.

Figure 16 shows a particular case of Figure 12 in which there is a breakage of the thermal bridge in the frame profile due to polyamide profiles or similar which are inserted in respective grooves of the frame profile in order to subsequently make a cut in the area of the frame between them.

Figure 17 shows a perspective view of the horizontal profile in which the bolt is fitted in order to immobilise the mobile part of the guide with respect to the fixed part.

Figure 18 shows an opened out perspective view of the terminal of the horizontal profile, together with the strip and the rivet which acts as a bolt.

Figure 19 shows an A-A' section view of the horizontal profile of Figure 17 together with the bolt and catch of the bolt.

PREFERRED EMBODIMENT OF THE INVENTION

[0035] Below various examples are shown of a preferred embodiment of the blind which is the subject of this invention which uses a single connection bolt between the profile of the frame and the guide profile of the blind, specifically in the upper fixed sector of the latter, which ensures connection of both profiles and provides the rigidity required in the guide profile when this is in an open or projecting position.

First example of a preferred embodiment.

[0036] Figures 1 to 9 show how the blind with folding guides of this first example of an embodiment is structure, in correspondence with each of its lateral edges by means of a frame profile (1) with a general section in an "L" shape and designed to be attached by one of its arms, that corresponding to the corresponding reference (1) to the lateral wall of the door or window with that arm having a groove (2) in its free end with a strangulated opening, for the introduction of a padded strip, whereas its other arm is double, defined in its free end by a deep channel (3) for connection of the lower bolt (4) and in that same arm it has two grooves (5-5') externally placed with strangulated openings, which are laterally adjacent, and to which an adaptor profile (6) is selectively connected linking the frame profile (1) with the window profile (7), which is a conventional profile as is the adaptor (6). The guide profile (8) is mounted on the frame profile (1) with the interposition of a sole connection bolt (9) represented in detail in Figures 4 and 5, which is basically rectangular prismatic, with a deep groove (10) which is presented by what has to be the lower end (11) hinged in correspondence as mentioned previously, with the cut plane between the two sectors, the fixed (8.1) and the folding (8.2) of the guide profile (8). The bolt (9) in addition incorporates transversal holes (12-12') for attachment by bolting to the fixed part (8.1) of the guide profile (8) and the frame profile (1) respectively. The guide profile (8) has a classic "U" shaped section determining a groove (13) for the ends of the blind slats to slide which do not enter into contact with the guide profile (8) due to the existence of the padded strips (14) housed in grooves or channels (15) with strangulated openings, appropriately facing each other and with the padded strips bending at their ends towards external lateral housings (16) where they are fixed by means of pressure bolts (17). The lateral external housings (16) also enable fitting of reinforcement bolts (27) which may be placed at any height of the blind, as desired.

[0037] The guide profile (8) incorporates in addition cylindrical housings (18) distributed according to the points of an imaginary triangle, which ensures solid connection to the lower connection bolt (20).

[0038] The guide profile (8) and the frame profile (1) are provided with projections (28-28') and recesses (29-29') which face each other and which permit the cen-

tring of the axes of the supports of the holding arm in both profiles. These projections (28-28') and recesses (29-29') facilitate the drilling work during installation and conceal the connection elements of the arm supports and the connection hinge (33).

[0039] The upper fixed sector (8.1) of the guide profile (8) is joined to the lower folding sector (8.2) by means of the hinge (33) as is conventional, and the two lower folding sectors (8.2) which form part of the blind are linked by means of a lower profile (19). The lower mobile part (8.2) of the guide profile (8), able to swing over the upper and fixed part (8.1) thereof, is linked by its lower end by means of the lower profile (19) with the collaboration of a pair of lower connection bolts (20), represented in detail in figures 4 and 5, defining in each of these bolts two portions (20-20'), one designed to be fixed by screwing to the lower end of the guide profile (8), with holes (21) situated in correspondence with the aforementioned holes (18) and another (20') designed to be inserted in the lower profile (19) and fixed to it by means of screws passing through holes (22).

[0040] This lower profile (19) has a flap (23) at each end profiled in the form of a downward groove into which the aforementioned bolt (4) fits for blocking the swinging part of the blind to the frame profile (1) as may be seen in Figure 3, with that bolt presenting a small actuating head (24) which emerges on the outside of its housing, specifically through the internal face of the blind. As shown in Figures 6 and 7 the adaptor profile (6) may be a single piece with the profile (7) or profile (7') corresponding to the door or window frame, both in the case of a door or window with sliding panes, and in the case of Figure 6 or sliding doors as in the representation of Figure 7.

[0041] As shown in Figure 8, the invention is equally applicable to a double blind, that is, in those cases in which the door or window space, being considerably wide, or because it is a mixed structure, by means of a combination of door and window, in which case the aforementioned frame profile (1) and in the case of the general "L" shaped section of the embodiment shown in Figure 2, presents a configuration in "T" shape, symmetrical to the previous configuration, receiving on both sides respective guide profiles (8-8'), with the collaboration of respective bolts (9-9'), and in which case the basic "T" of said frame profile (1), specifically in comparison to the bolts (9-9') two parallel partitions emerge (25) likely to fit telescopically inside or outwardly, not represented, with a "U" shaped profile (26) in order to adjust the effective dimension of these elements (25-26) based on the width of the wall, that is, to appropriately separate the plane of the blind with respect to the plane of the door or window. The "U" shaped profile (26) enables installation of a winding or pleated mosquito net and/or a safety grill. Finally and as shown in Figure 9, the invention also provides the possibility of converting a conventional blind with pre-existing fixed guides in an already installed working door or window, into a folding blind by using an alignment pro-

file (30) with a general section in "L" shape which presents, centred on one of its arms two parallel partitions (31) which are externally oriented and determining a type of hollow channel which may be connected adjustably to the fixed guide of the existing blind, which enables the symmetrical axes of both guides to be aligned, which are fixed by means of screws. The alignment profile is used throughout the extension of the guide profile or in sections. In order to complete the conversion, the guide profile may incorporate in the interior section a conventional connection profile (32) which projects above with respect to the guide profile (8) in order to access the interior of the case and to serve as a guide for the new slats which will be those already existing cut to the appropriate length in accordance with the distance between the original guides and the new distance established.

[0042] In order to block the mobile part (8.2) of the guide to the frame profile (1) when the blind is in a vertical position, a strip (47) is fixed to the lateral external housing (16) of the mobile part (8.2) of the blind guide (8) by means of screws or stay bolts inserted in holes (47.3).

[0043] The strip (47) is provided with a projection (47.1) antagonistic to a groove (51.1) in a terminal (51) of a horizontal profile (49) with both the projection (47.1) and the groove (51.1) joined by means of a bolt (47.2) passing through holes (47.1.1, 51.1.1) of both (47.1, 51.1) in order to fix the horizontal profile (49) to the mobile part (8.2) of the guide (8).

[0044] A rivet (48) which slides through a hole (49.1) of a horizontal profile (49) situated on the mobile part (8.2) of the guide (8) acts as a bolt with respect to the fixed part (8.1) of the guide by activating a catch (50) situated in a cavity (49.2) of said horizontal profile (49), in such a way that the rivet (48) is inserted in the groove (3) of the frame profile (1) of the blind.

[0045] By pulling a projection (49.3) of the horizontal profile (49) the mobile part (8.2) of the guide (8) closes on the fixed part (8.1) in addition to the fact that the horizontal profile (49) enables the guides of both sides of the blind to remain parallel and enables the bolt to be actuated in those cases when the lateral ends of the blind, those which travel through the guides, are not accessible.

[0046] In addition, the user may place the horizontal profile (49) at the height required due to the holes (47.3) of the strips (47) fixed in the external lateral housing (16) on both sides of the mobile part (8.2) of the blind guide (8).

Second example of a preferred embodiment.

[0047] In this second example of a preferred embodiment, shown in figure 10, the two parallel partitions (31) of the frame profile (1), with an "L" shaped configuration destined to connect and attach to the corresponding fixed guide (37), are closed with another partition (34) determining a "U" shaped configuration determining a type of hollow member projecting outwards and open towards the interior of the aforementioned frame profile (1) with said bar being of a suitable dimension for fitting tightly in

the fixed guide (37) to which it is finally fixed with the collaboration of screws (35) accessible through the opening of said "U" shaped configuration (3). On its other arm, the profile frame (1) presents a rectangular section (36) for the concealment of connection elements and for the insertion of strips which enable various vertical sections of the frame profile (1).

Third example of a preferred embodiment.

[0048] In this third example of the preferred embodiment and in the light of figures 11 and 12 it is possible to see how the frame profile (1) may form a unit jointly with the corresponding window or door, configuring an assembly unit which comes finished from the factory to be assembled directly on site.

[0049] The frame profile (1) presents at the point close to the connection bolt (9) a groove (38) opening inwards to the door or window space, for fitting the lower bolt (39) in a vertical situation of the blind and its complementary guides (8), whereas its middle arm (40) presents a length sufficient such that said frame profile may establish, appropriately inlaid, the belt winder (41) accessible through the frame profile of the door or window, with a free space remaining between the zone provided for the location of the belt winder (41) and the groove (38), in order to install if appropriate, a mosquito net and /or a safety grill, as may be seen from Figure 12.

[0050] The blind may also be integrally compact, that is, totally integrated with the door or window, as shown in figures 13 and 14, in which case the middle arm (40) of the frame profile (1) integrates in one piece the angular profile (42) which is part of a door or window with folding panes, or incorporates partitions (43) which are equivalent and make up the fixed frame of a door or window with sliding panes, as shown respectively in figures 13 and 14.

[0051] In particular, from observation of these Figures 13 and 14 it is possible to deduce the considerable proximity of the base of the guide profile (8) with respect to the side of the wall space in which the compact blind is established, which enables use of slats with the same length as if it were a conventional blind.

Fourth example of a preferred embodiment.

[0052] In this fourth example of a preferred embodiment shown in figures 15 and 16 the frame profile (1) forms a joint unit with the corresponding window or door, configuring an assembly unit which comes ready manufactured from the factory and which may be assembled directly on site, as in the third example of a preferred embodiment.

[0053] Figure 15 shows a detail of a frame profile (1) which presents a middle arm (40) divided into two parts and which are joined through layers of an element (44) for breaking the thermal bridge, in this case polyamide, which are inserted in housings (45) present in both parts

of the frame profile (1). Figure 16 shows another configuration of breakage of the thermal bridge where the middle arm (40) of the frame profile (1) is a single part provided with two grooves (46) with a strangulated opening which are joined by means of layers of an element (44) of breakage of the thermal bridge, in this case polyamide, in order to subsequently remove the section of the middle arm (40) which separates both grooves (46) thus causing breakage of the thermal bridge.

Claims

1. - Blind with folding guides, of the type which incorporates a pair of lateral frame profiles (1) to which the fixed upper end area (8.1) of the guide profiles (8) is fixed, to which is joined in the lower part with the possibility of swinging a folding sector (8.2) of said guide profiles (8), so that these sectors of the guide profiles (8) jointly with the lower corresponding profile (19) of the blind, may be folded forwards and downwards forming a type of awning **characterised in that** the fixed part (8.1) of each guide profile (8) is joined to the corresponding sector of the frame profile (1) with the interposition of a single connection bolt (9) with a general prismatic rectangular configuration, with a chamfer (11) or included plane in its lower edge, which coincides in terms of position and inclination with the cut between the two fixed (8.1) and mobile (8.2) sections of the guide profile (1), with said bolt (9) having an upper groove (10) in "U" section for inserting the projection provided by the standard casings in which the blind is wound, a bolt (9) which is attached to the aforementioned profiles and projection by means of internal screws which are not visible.
2. Blind with folding guides according to claim 1 **characterised in that** the frame profile (1) is provided with a general "L" shaped profile the arm of which adapts to the wall and incorporates in correspondence with its free edge an internal groove (2) with a strangulated opening for attachment of a padded strip, whereas the other arm has a double wall defining a deep groove (3) in its free edge through which it receives the lower bolt (4) of the blocking device of the mobile or swinging part (8.2) of the guide profile (8), this second arm having in its external face two wide grooves (5-5') with a strangulated opening and which are laterally adjacent, for the selective connection of an adaptor profile (6) which links the frame profile (1) with the window profile (7).
3. Blind with folding guides, according to previous claims **characterised in that** the guide profile (8) incorporates three holes (18) situated in correspondence with the points of an imaginary triangle, for attaching a lower connection bolt (20) with screws, while the lateral arms of the slats reception groove incorporates internally grooves with a strangulated opening (15) in receive the respective padded strips and external housings (16) in which the retracted ends of said padded strips are housed and which are attached by means of pressure bolts (17) established in said housings (16).
4. Blind with folding guides, according to previous claims **characterised in that** the external housing (16) of the guide profile (8) receive the reinforcement bolts (27).
5. Blind with folding guides, according to previous claims **characterised in that** between the internal and free ends of the folding sector (8.2) of the two guide profiles (8) a lower profile (19) is situated, which is attached to those by means of respective lower connection bolts (20), in each of which two sectors are defined, one to be situated under the guide profile (8) and to be attached by means of three holes (21) of the latter through screws and another to be inserted in the lower profile (19) and to be fixed thereto also by screws.
6. Blind with folding guides according to previous claims **characterised in that** the lower profile (19) incorporates, externally, in correspondence with its ends respective ascending curved wings (23) determining concave channels oriented downwards with strangulated openings, in which the lower blocking bolts (4) of the folding sector of the blind are housed with respect to the frame profiles (1) with a small head (24) emerging lower down in each bolt (4) for manual activation thereof from the interior part of the blind.
7. Blind with folding guides, according to previous claims **characterised in that** the adaptor profile (6) is a single piece with the frame profile (1) of the door or window (7,7').
8. Blind with folding guides, according to previous claims **characterised in that** the frame profile (1) in the case of large spaces or double blinds with independent action, is likely to adopt a "T" shaped configuration which receives on both sides respective guide profiles (8, 8') with the interposition of respective connection bolts (9, 9') and in counterpoint to these two parallel partitions emerge (25) which are susceptible to telescope inside or outside a "U" shaped profile (26) in order to adjust the effective dimension on the basis of the width of the wall enabling an additional mosquito net to be placed and/or a safety grill.
9. Blind with folding guides according to previous claims, **characterised in that** in order to transform

blinds with fixed guides the frame profile (1) is susceptible to connection with an alignment profile (30) with a general "L" shaped section which presents centred on one of its arms two parallel partitions (31) projecting outwards and dimensionally adequate for inserting in the corresponding and pre-existing fixed guide (37), to which it is attached by screws, and with a conventional connection profile (32) attached to the guide profile (8) which is inserted inside the interior section, and which protrudes above with respect to the aforementioned guide profile (8), in order to access the interior of the case and which serves as a guide for the new slats, which are those already existing cut to the new length.

10. Blind with folding guides, according to claim 1 **characterised in that** the upper and fixed sector 8.1 of the guide profile (8) is joined to the lower and folding sector (8.2) by means of a hinge (33).

11. Blind with folding guides, according to two parallel partitions (31) of the frame profile (1), with an "L" shaped configuration designed to connect and attach to the corresponding fixed guide (37), are closed with another partition (34) determining a "U" shaped configuration determining a type of hollow member projecting outwards and open inwards of the aforementioned frame profile (1) with said bar being of a suitable dimension for fitting tightly in the fixed guide (37) to which finally is fixed with the collaboration of screws (35) accessible through the opening of said "U" shaped configuration (3) where in its other arm the frame profile (1) presents a rectangular section (36) for the concealment of connection elements and for the insertion of strips which enable various vertical sections of the frame profile (1) to be joined.

12. Blind with folding guides according to claim 7 **characterised in that** the frame profile (1) is provided in its point close to the connection bolt (9) with a groove (38) opening inwards to the door or window space in order to fit the lower bolt (39) in vertical situation of the blind and its complementary guide (8) while its middle arm (40) is sufficiently long to establish, appropriately embedded in the frame profile the belt winder, (41) accessible through the frame profile of the door or window, leaving a free space between the area for placing the belt winder (41) and the groove (38) for installing, if appropriate, a mosquito net and/or safety grill.

13. Blind with folding guides, according to claim 7, **characterised in that** the blind is integrally compact, that is, it is totally integrated with the door or window, so that the middle arm (40) of the frame profile (1) integrates as a single part of the angular profile (42) which is part of a door or window with folding panes or incorporates partitions (43) equivalent to and con-

stituting the fixed frame of a door or window with sliding panes.

14. Blind with folding guides according to claim 1 **characterised in that** the frame profile (1) has a middle arm (40) divided into two parts which are joined through the layers of an element (44) which breaks the thermal bridge, which are inserted in housings (45) present in both parts of the frame profile (1).

15. Blind with folding guides according to claim 7 **characterised in that** the frame profile (1) has a middle arm (40) comprising a single part which has two grooves (46) with strangulated openings which are joined by means of layers of an element (44) breaking the thermal bridge, which subsequently eliminates the middle arm (40) section which separates both grooves, (46) thus causing breakage of the thermal bridge.

16. Blind with folding guides according to claim 3 **characterised in that** a rivet (48) which slides through a hole (49.1) of the horizontal profile (49) situated in the mobile profile (8.2) of the guide (8) acts as a closing bolt with respect to the fixed part (8.1) of the guide by activating a bolt (50) situated in a cavity (49.2) of said horizontal profile (49), in such a way that the rivet (48) is inserted in the groove (3) of the frame profile (1) of the blind.

17. - Blind with folding guides according to claim 16, **characterised in that** attached to the lateral external housing of the mobile part (8.2) of the blind guide (8) is a strip (47) with a projection (47.1) antagonistic to a groove (51.1) in a terminal (51) of the horizontal profile (49), both the projection (47.1) and the groove (51.1) being joined by a bolt (47.2) through holes (47.1.1, 51.1.1) in both (47.1, 51.1) in order to fix the horizontal profile (49) to the mobile part (8.2) of the guide (8).

18. Blind with folding guides according to claim 16 **characterised in that** the horizontal profile (49) is provided with a projection (49.3) which may be gripped, which enables the mobile part (8.2) of the guide (8) to be closed on the fixed part (8.1).

19. Blind with folding guides according to claim 16 **characterised in that** the horizontal profile (49) enables the guides of both sides of the blind to be maintained parallel and also permits the bolt to be activated in cases where the sides of the blind are not accessible due to the presence of fixed window frames or parts, in the case of lower window fixed parts and blinds with obstacles on their ledges.

20. Blind with folding guides, according to claim 17 **characterised in that** the user may place a horizontal

profile (49) at the desired height due to holes (47.3) in the strips (47) fixed in the lateral external housing (16) of both sides of the mobile part (8.2) of the blind guide (8).

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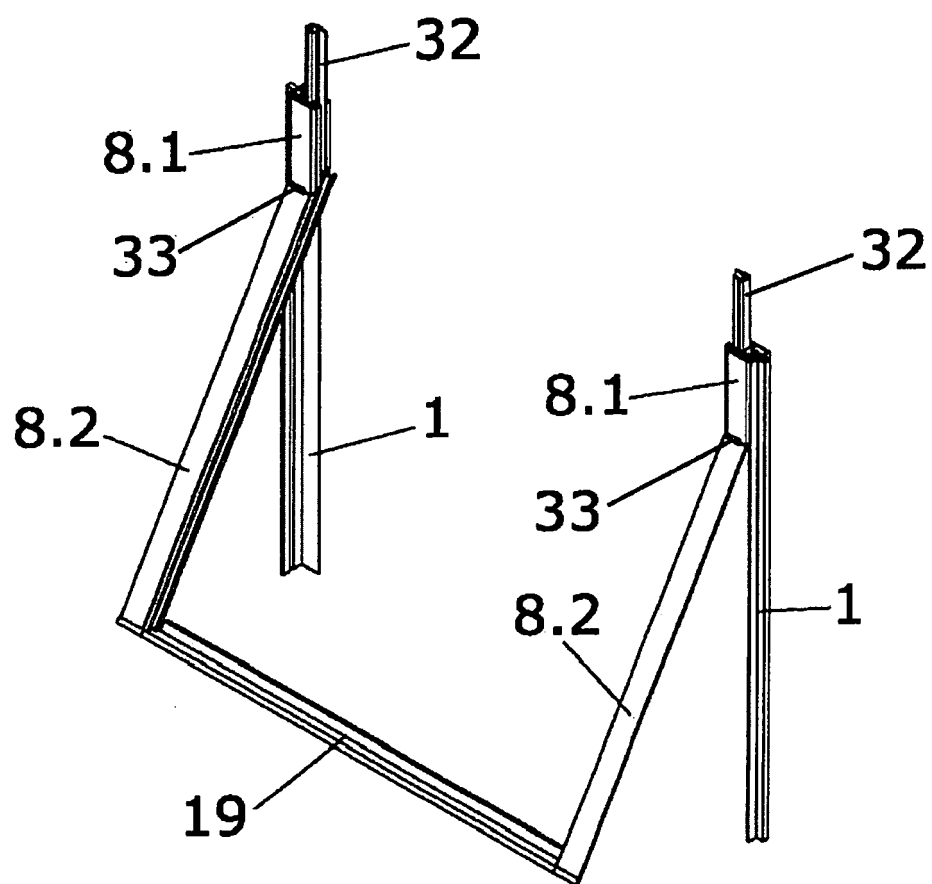


FIG.1

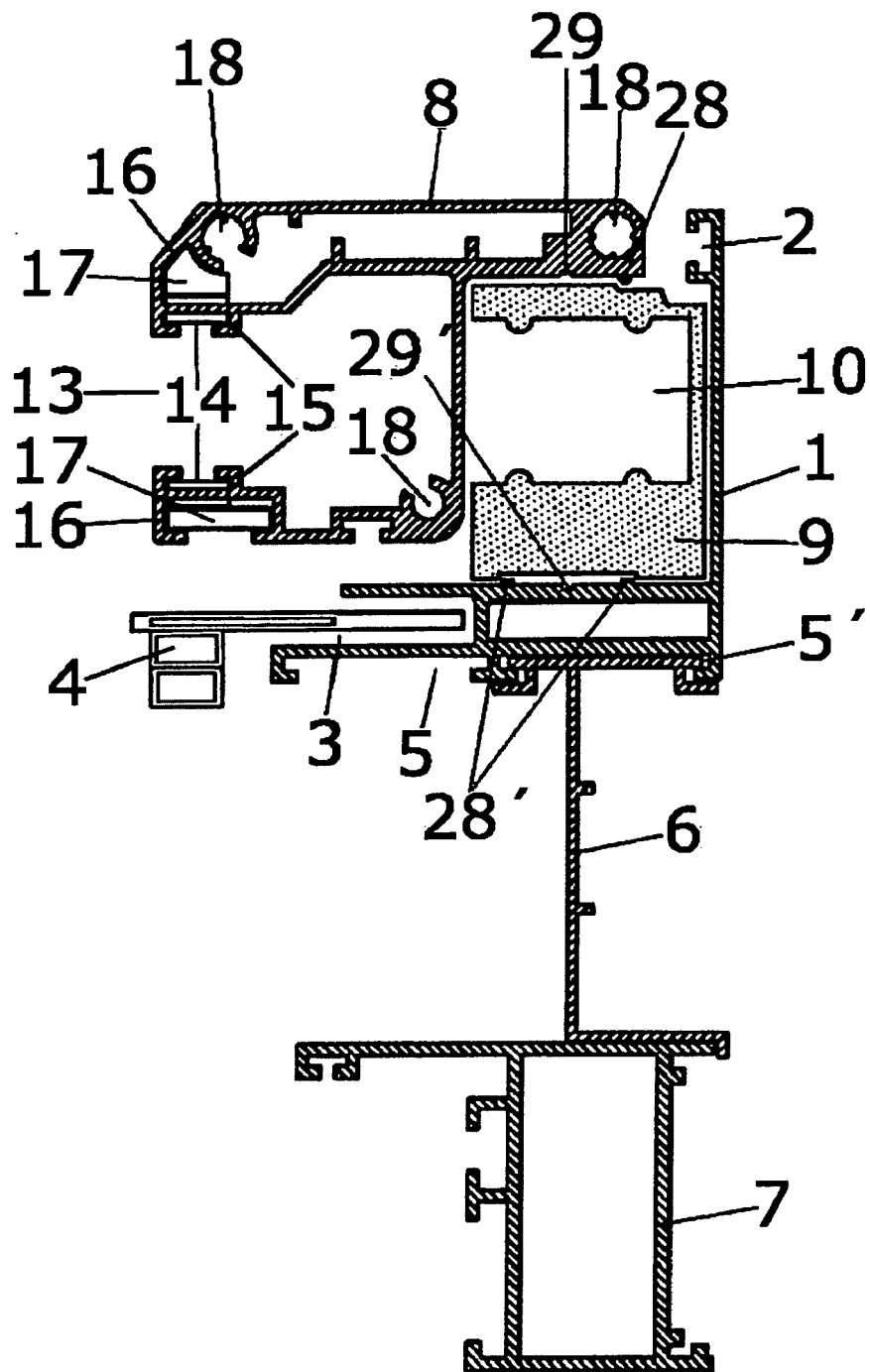


FIG.2

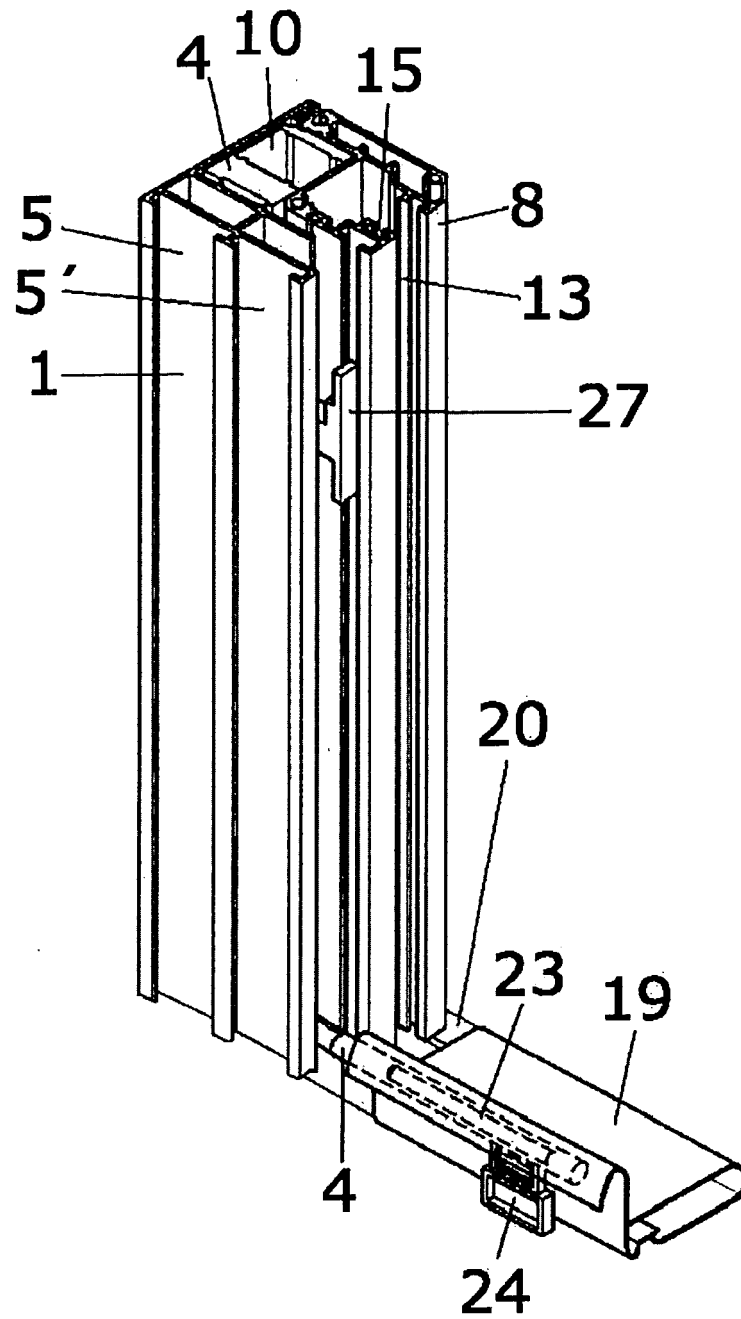


FIG.3

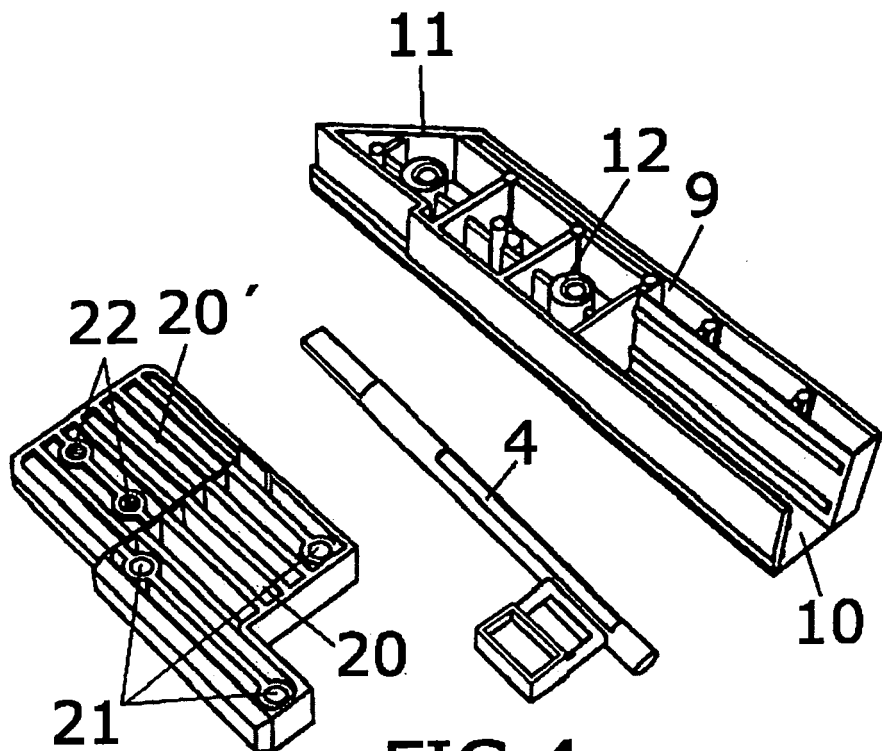


FIG.4

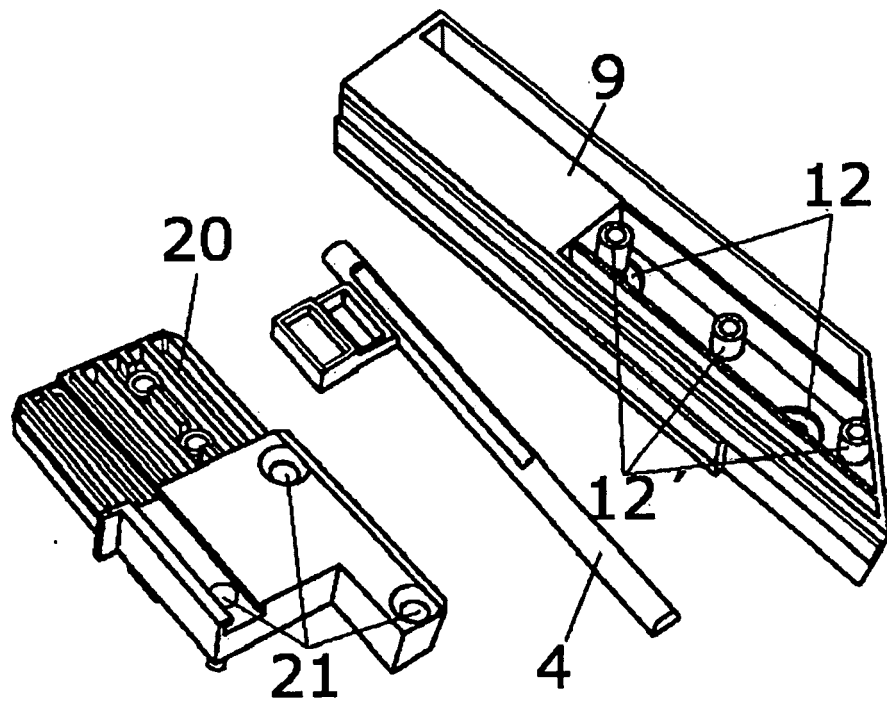


FIG.5

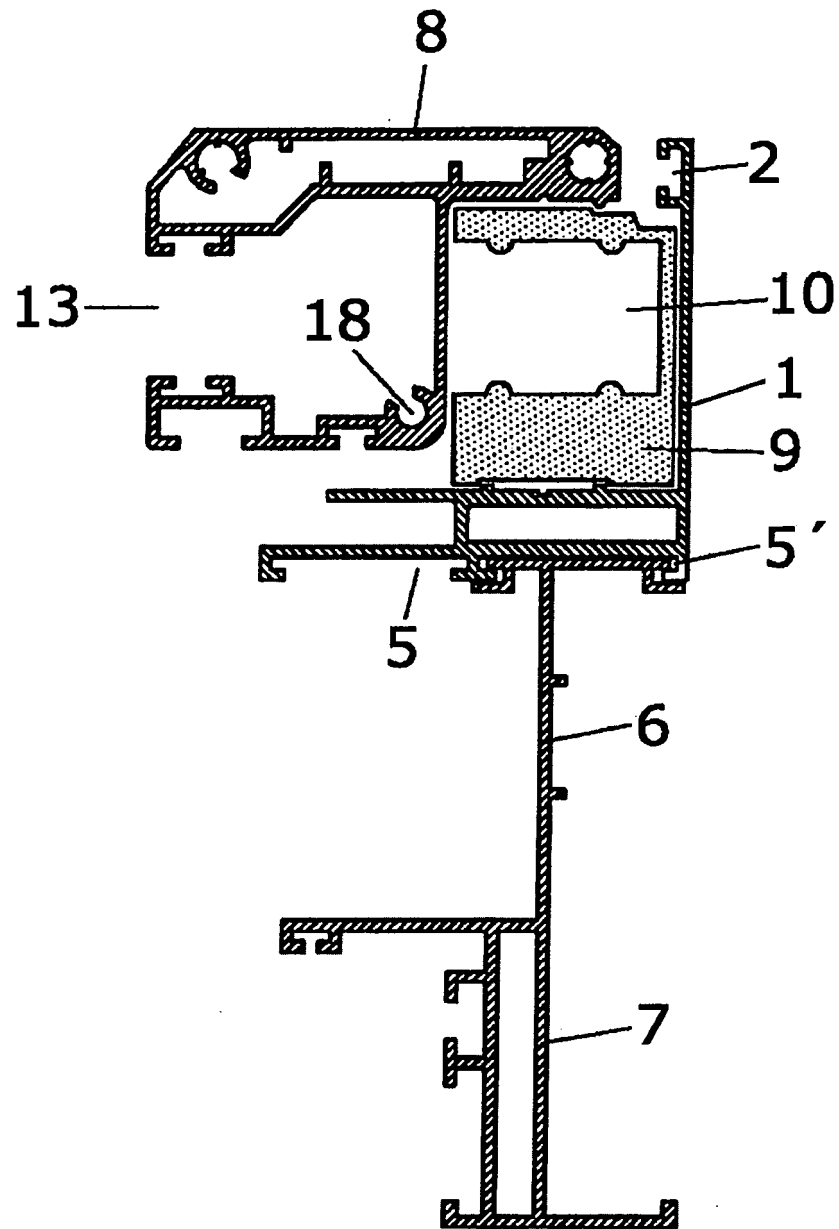


FIG.6

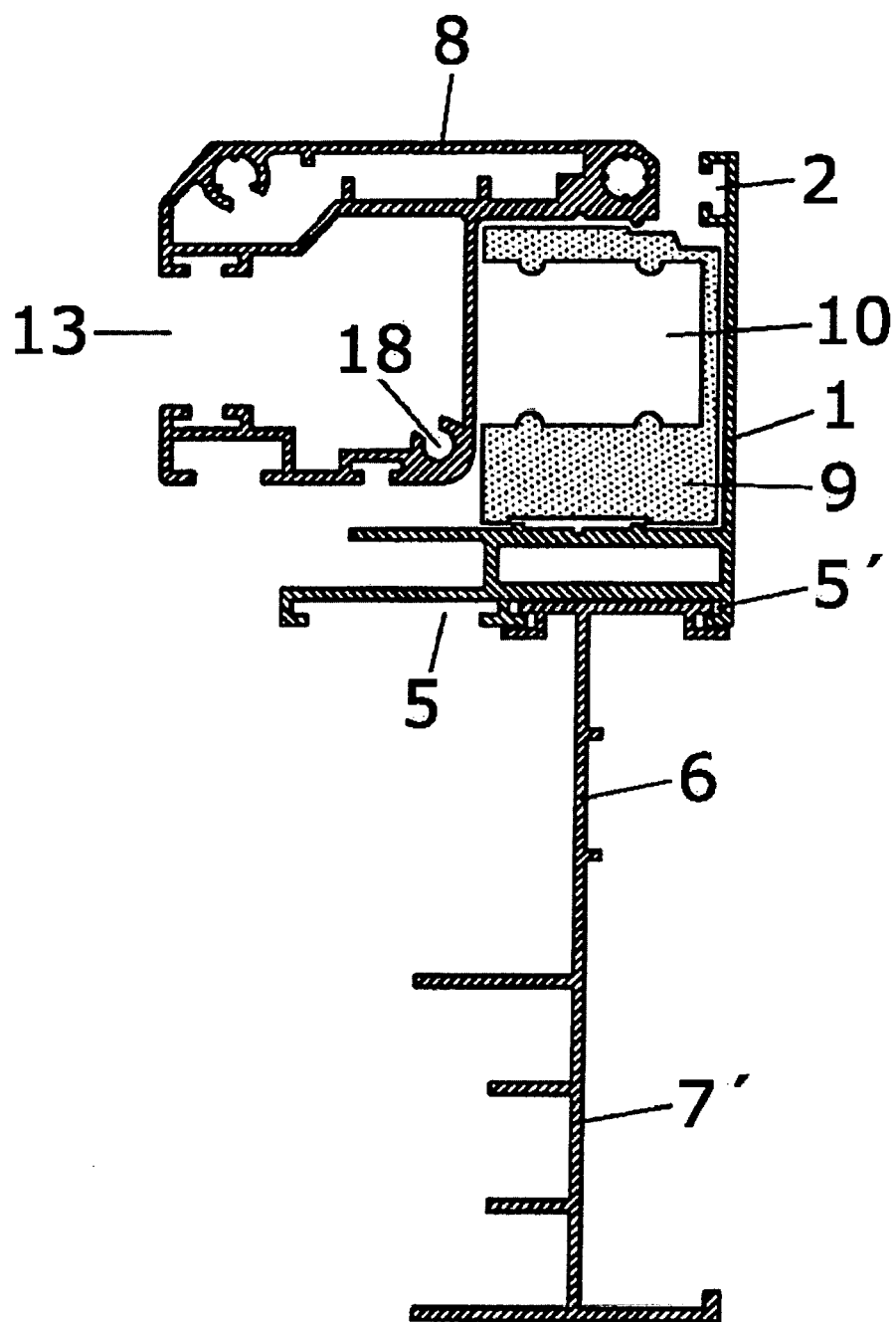


FIG.7

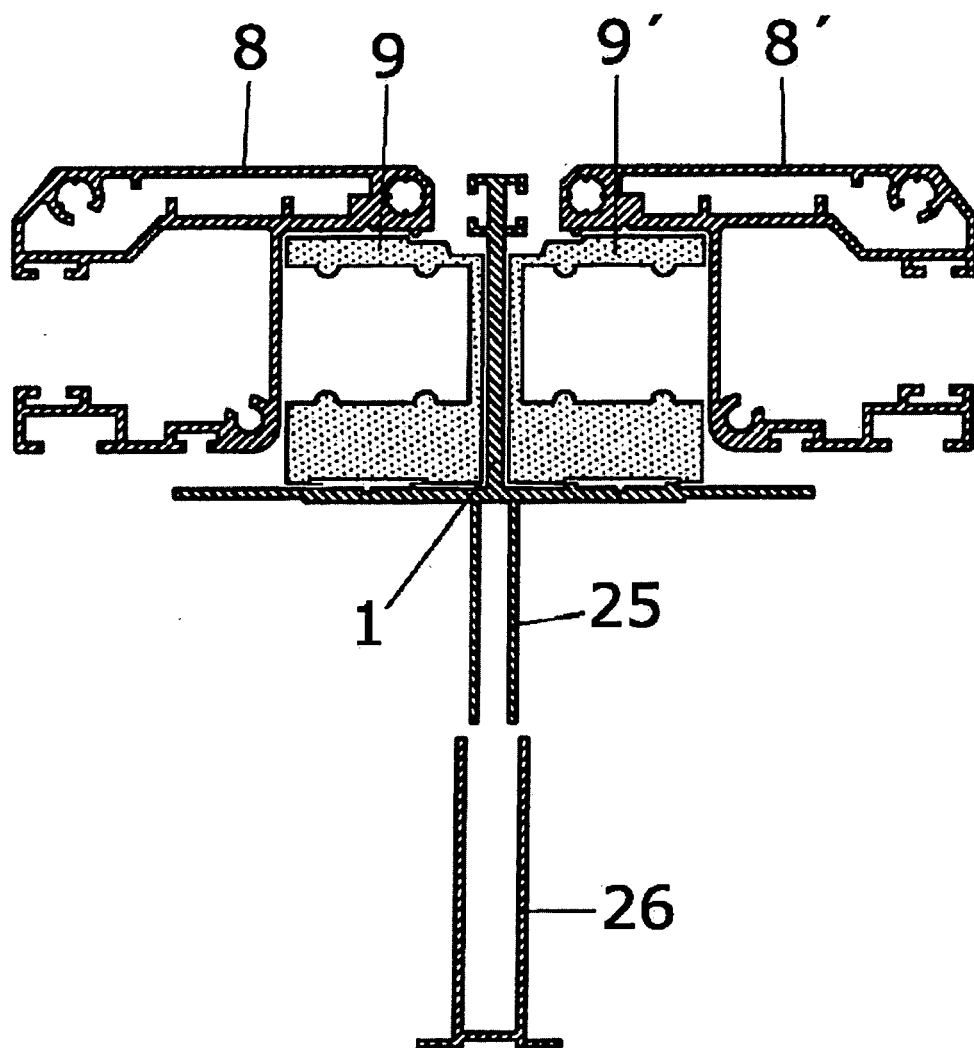


FIG.8

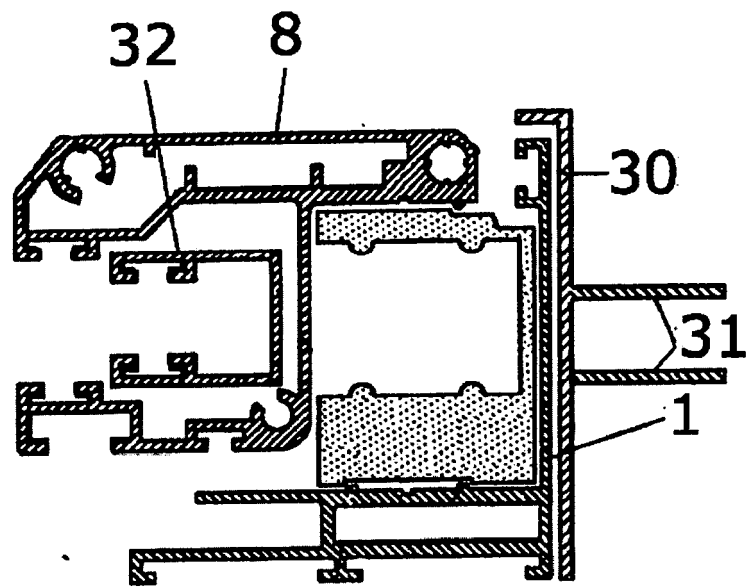


FIG. 9

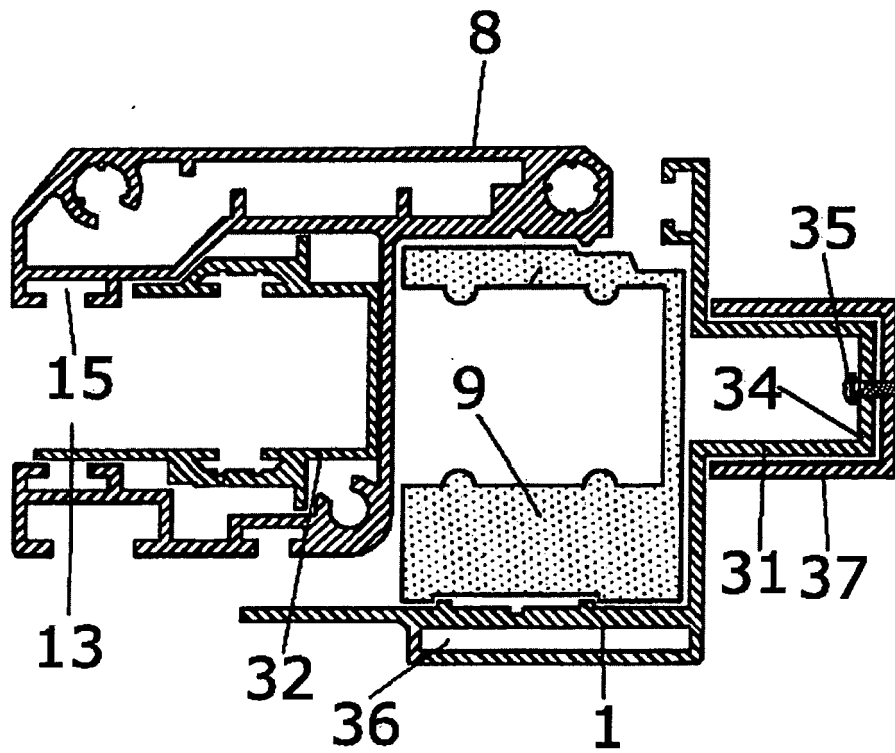


FIG. 10

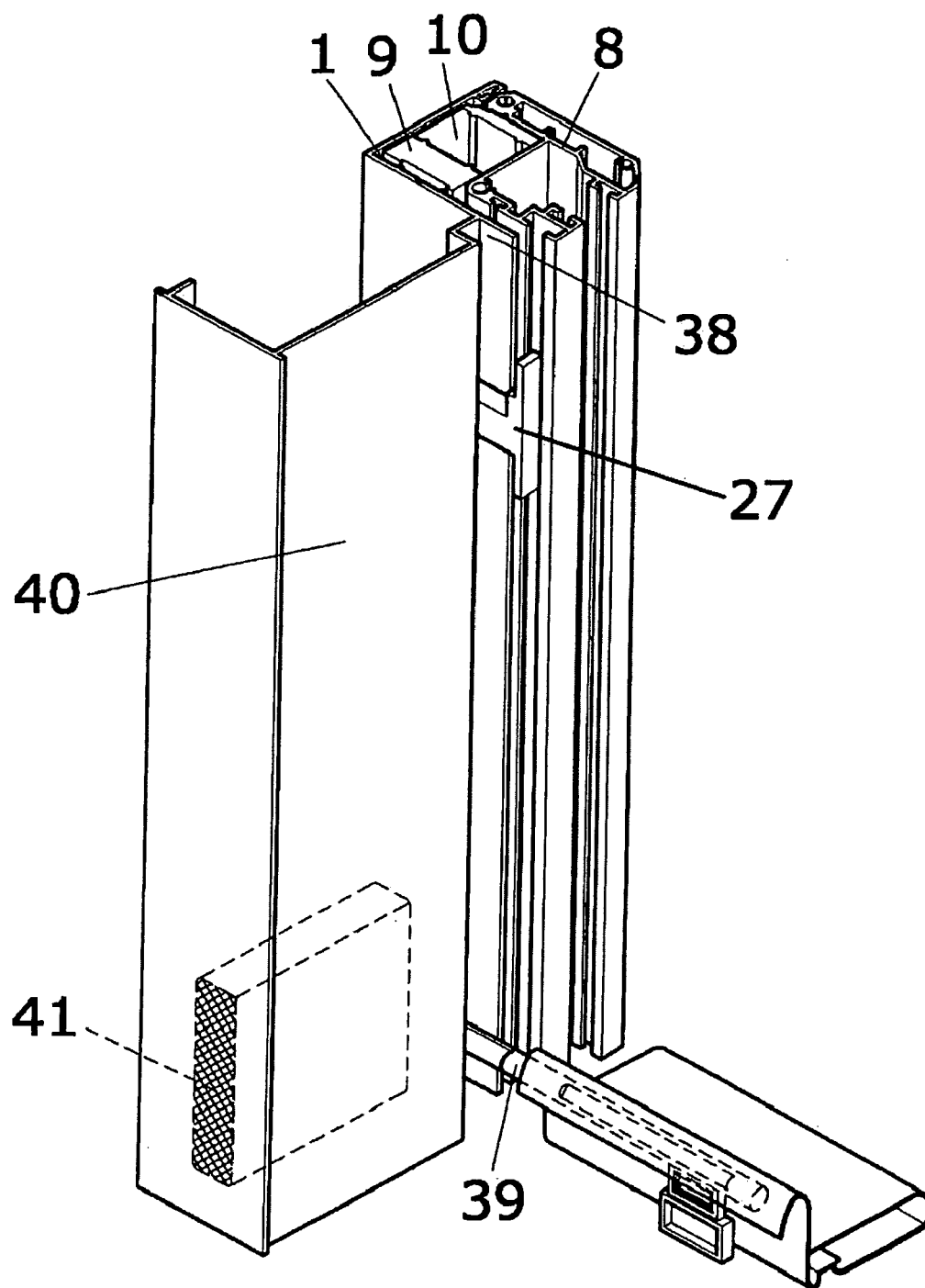


FIG.11

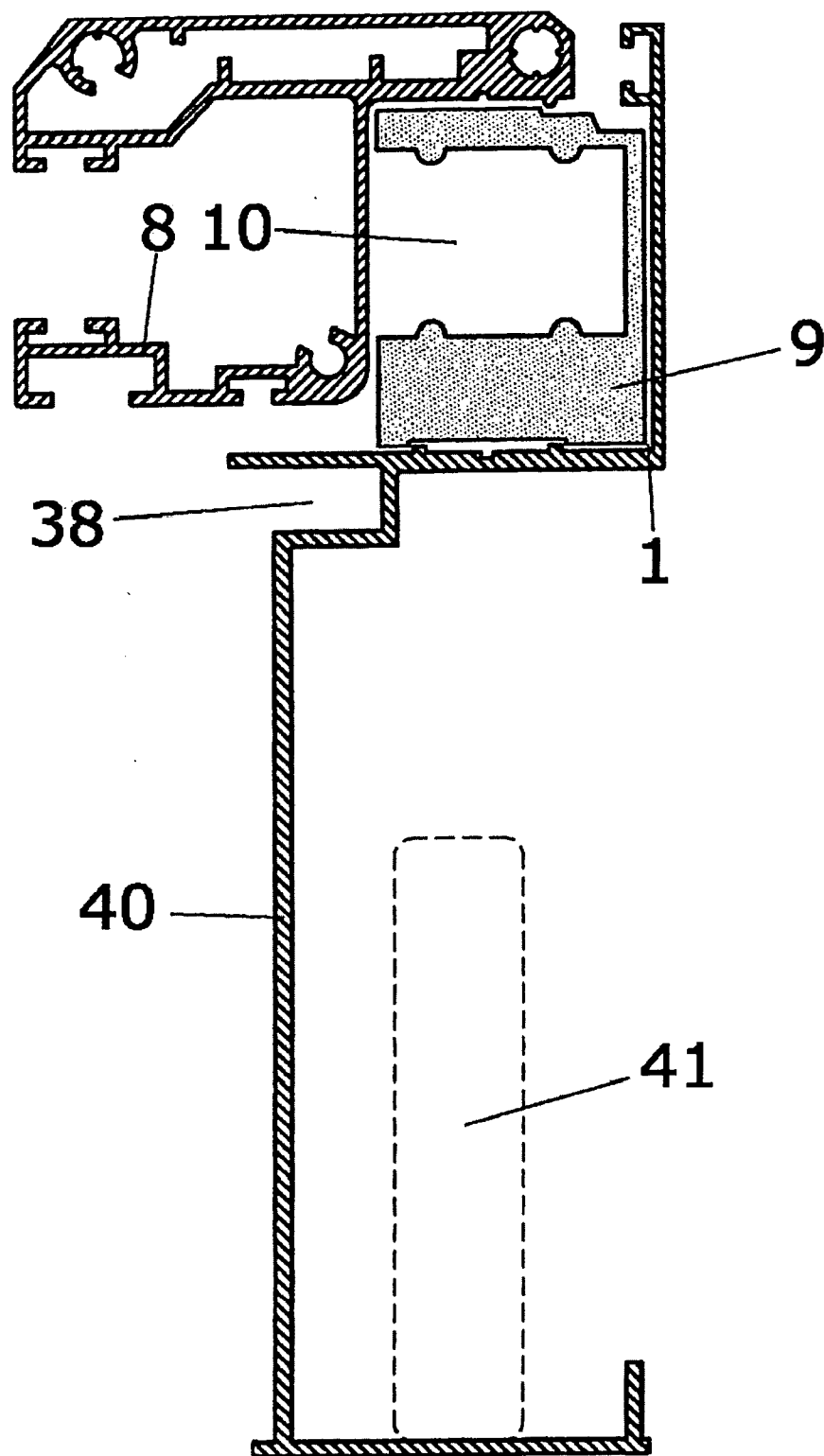


FIG.12

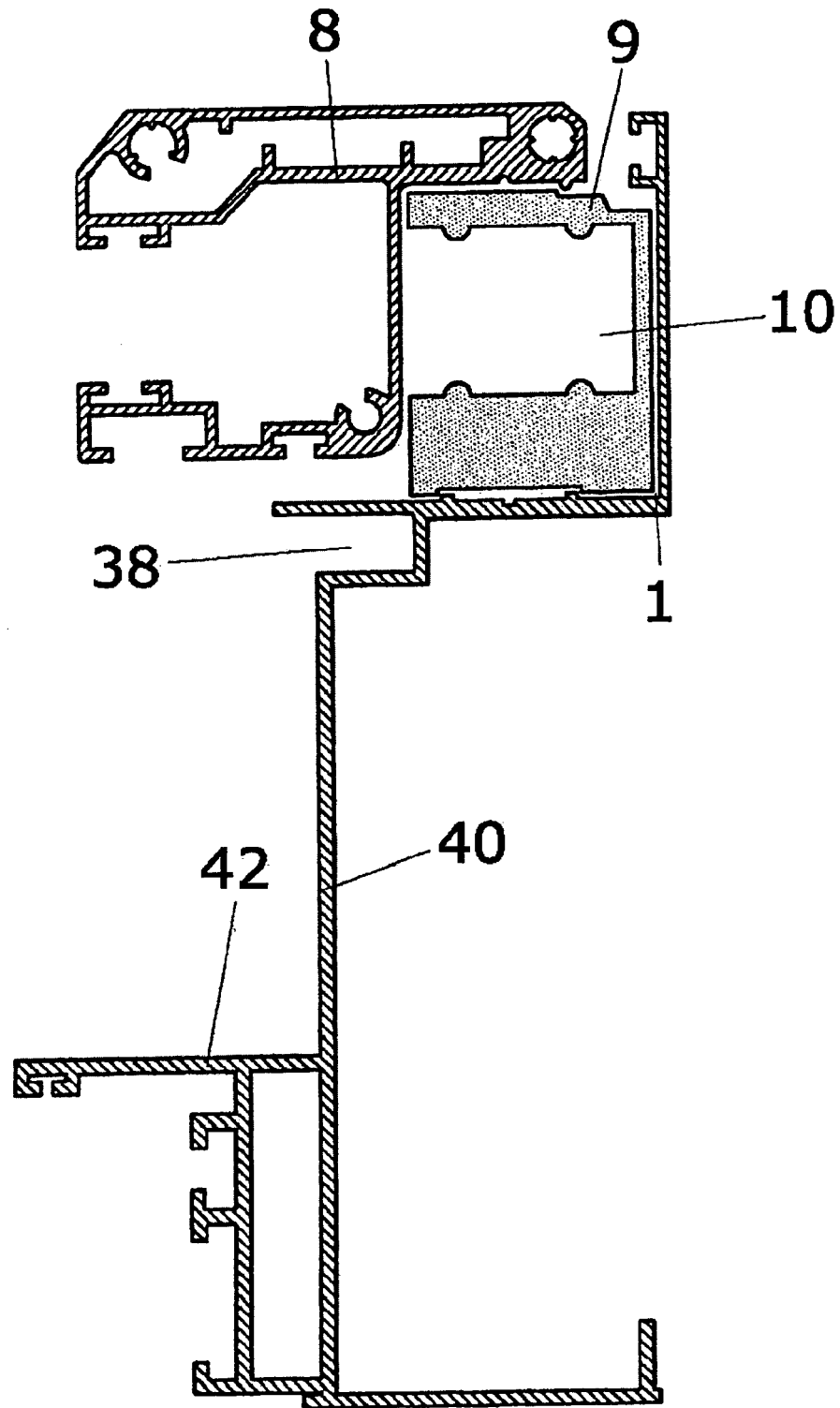


FIG.13

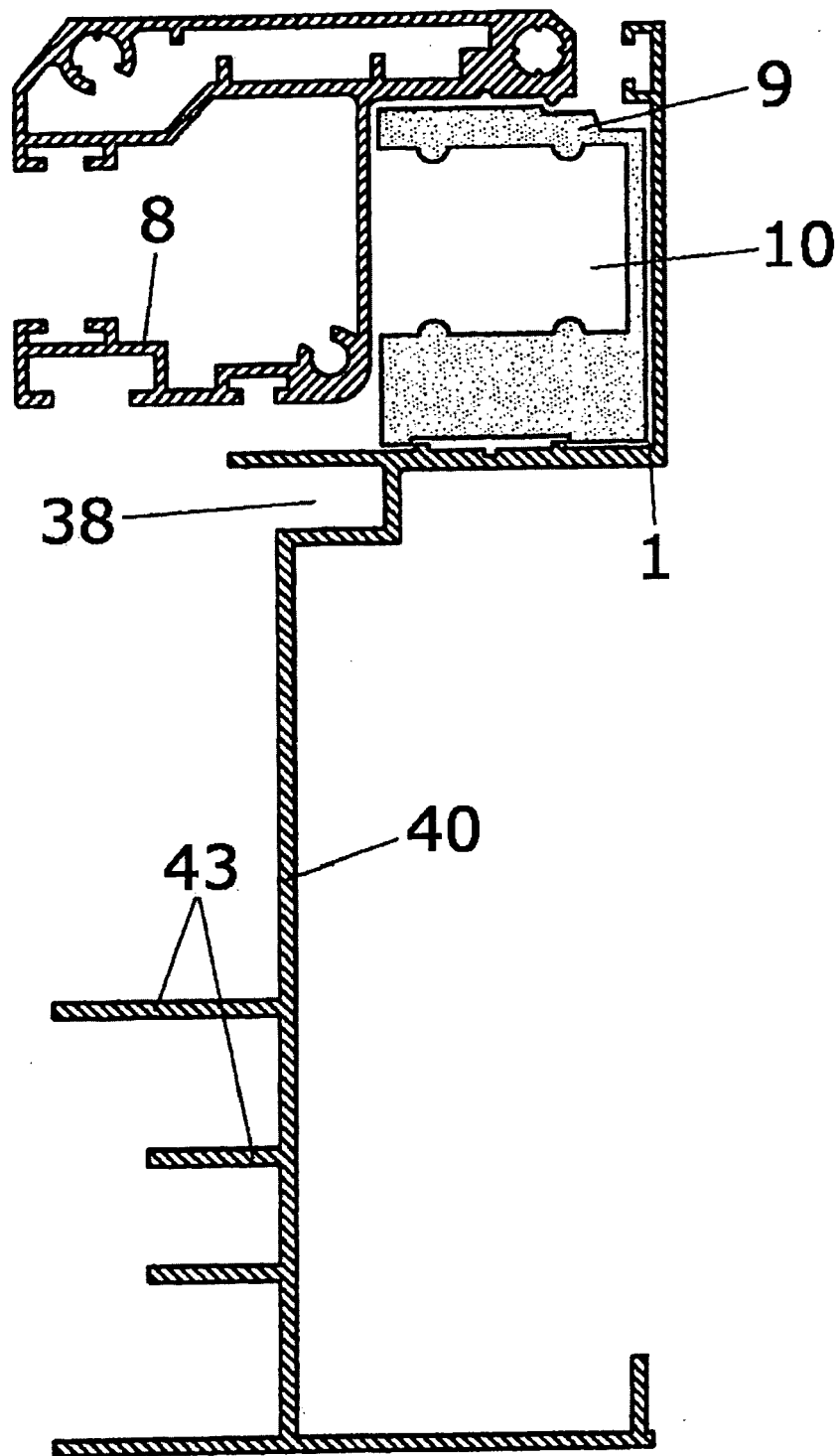


FIG.14

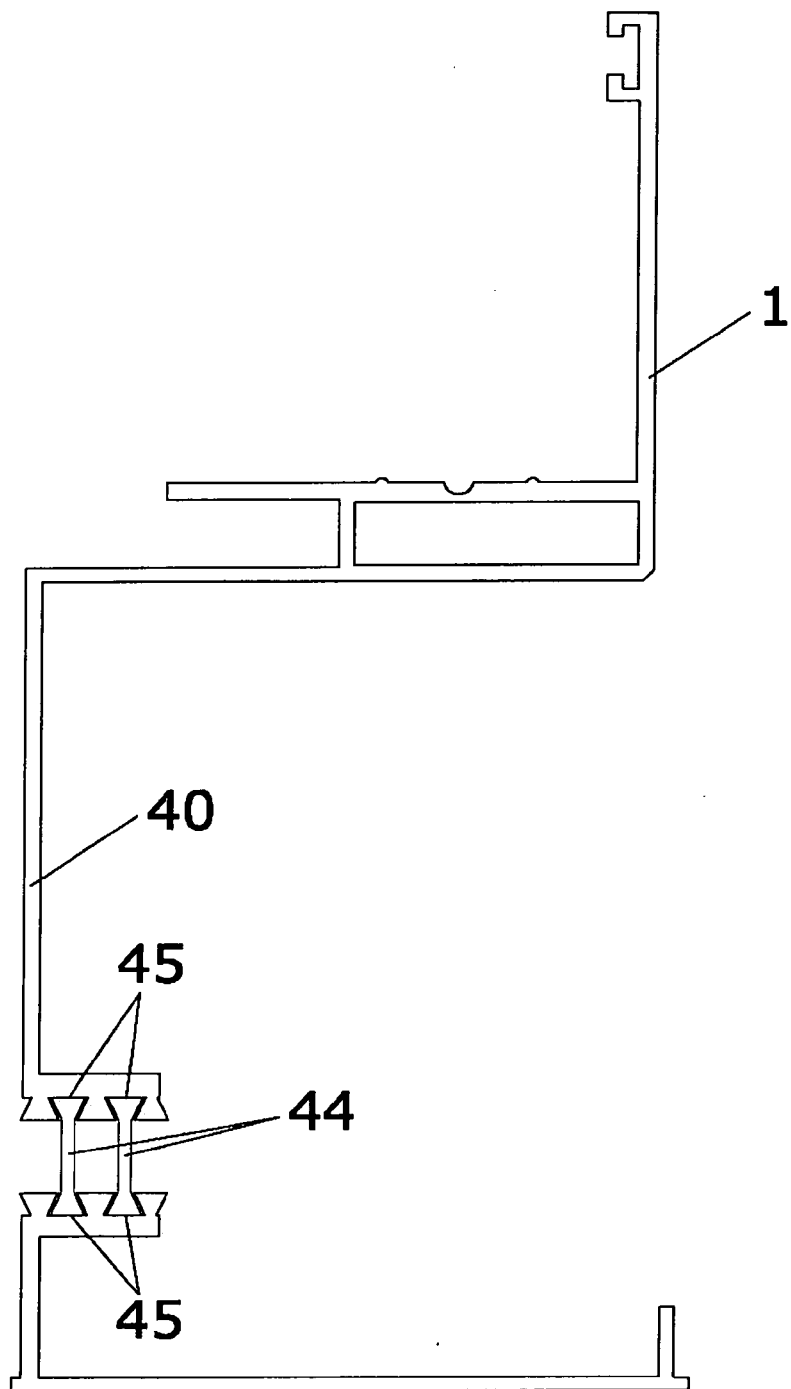


FIG.15

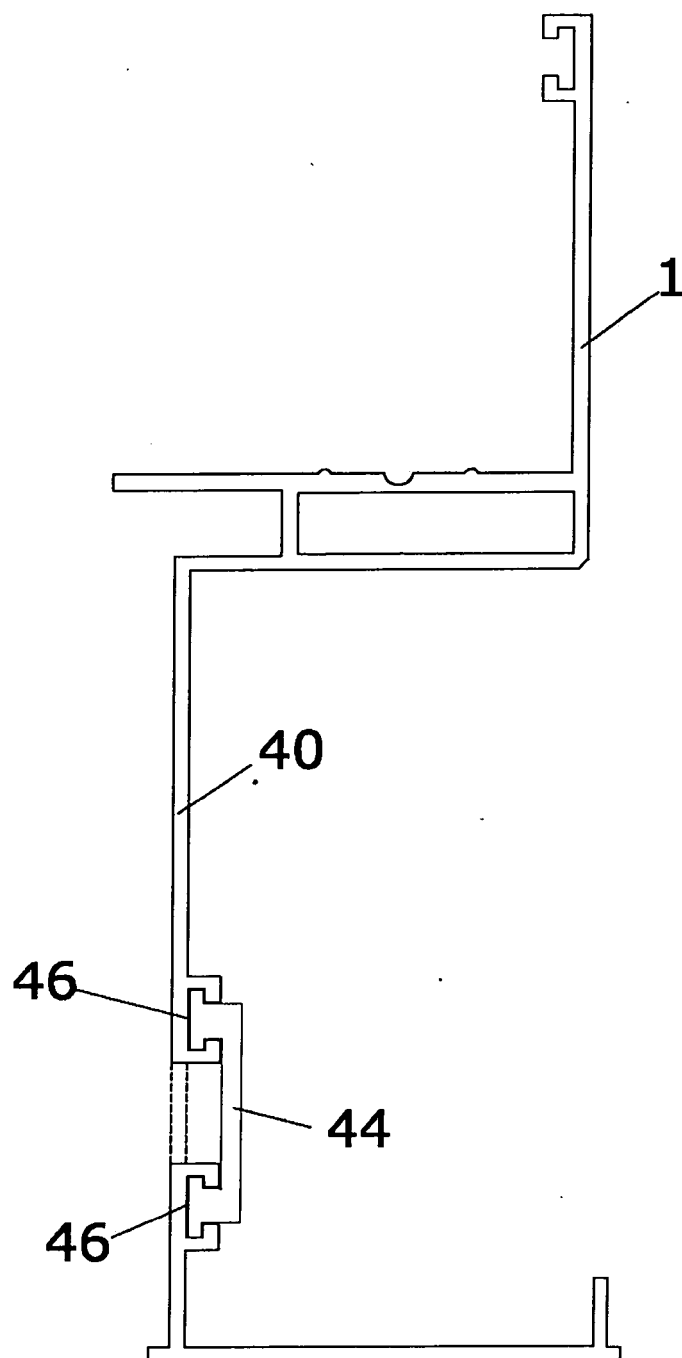


FIG.16

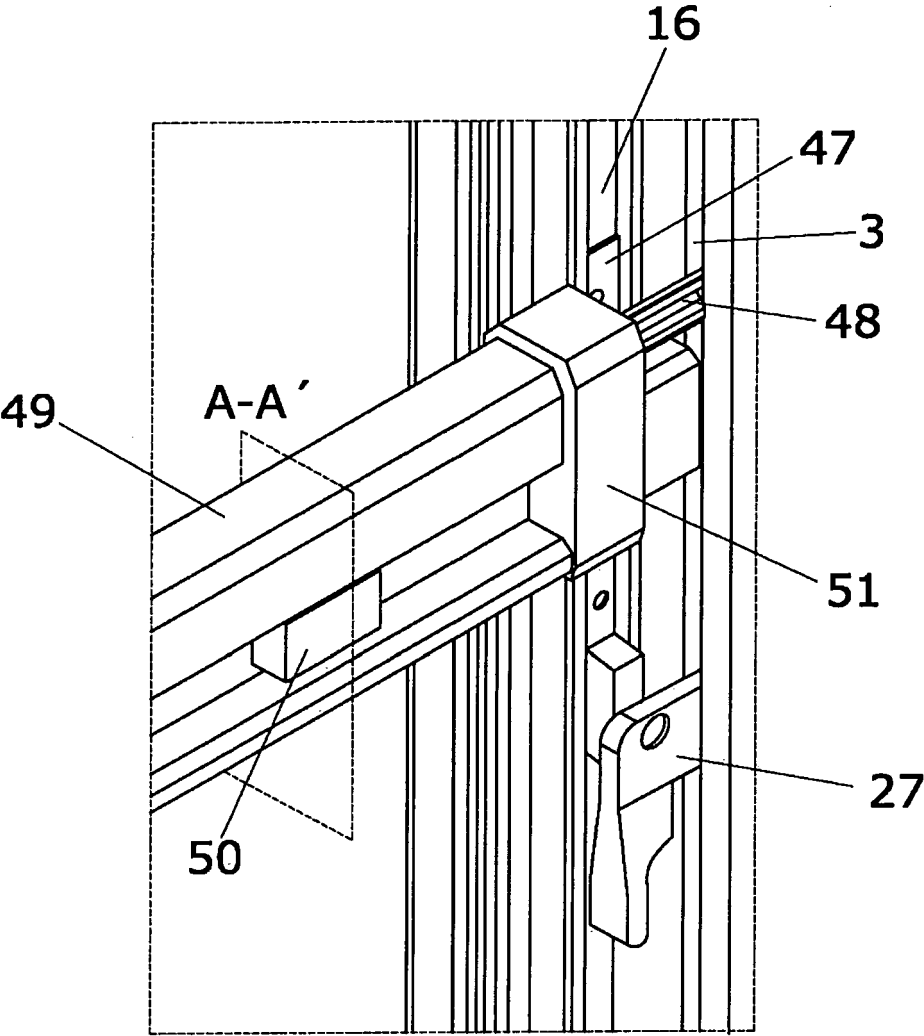


FIG.17

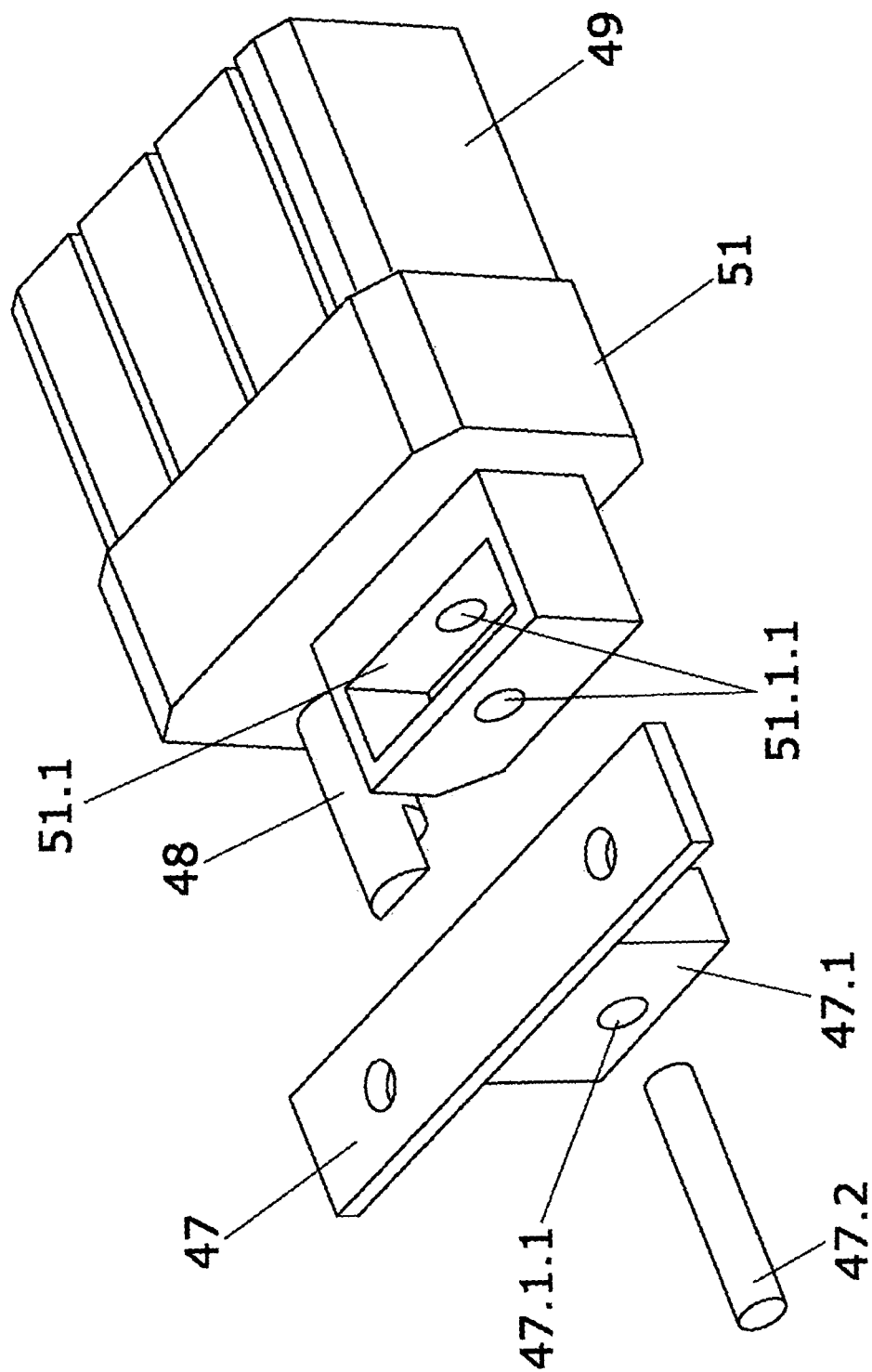


FIG.18

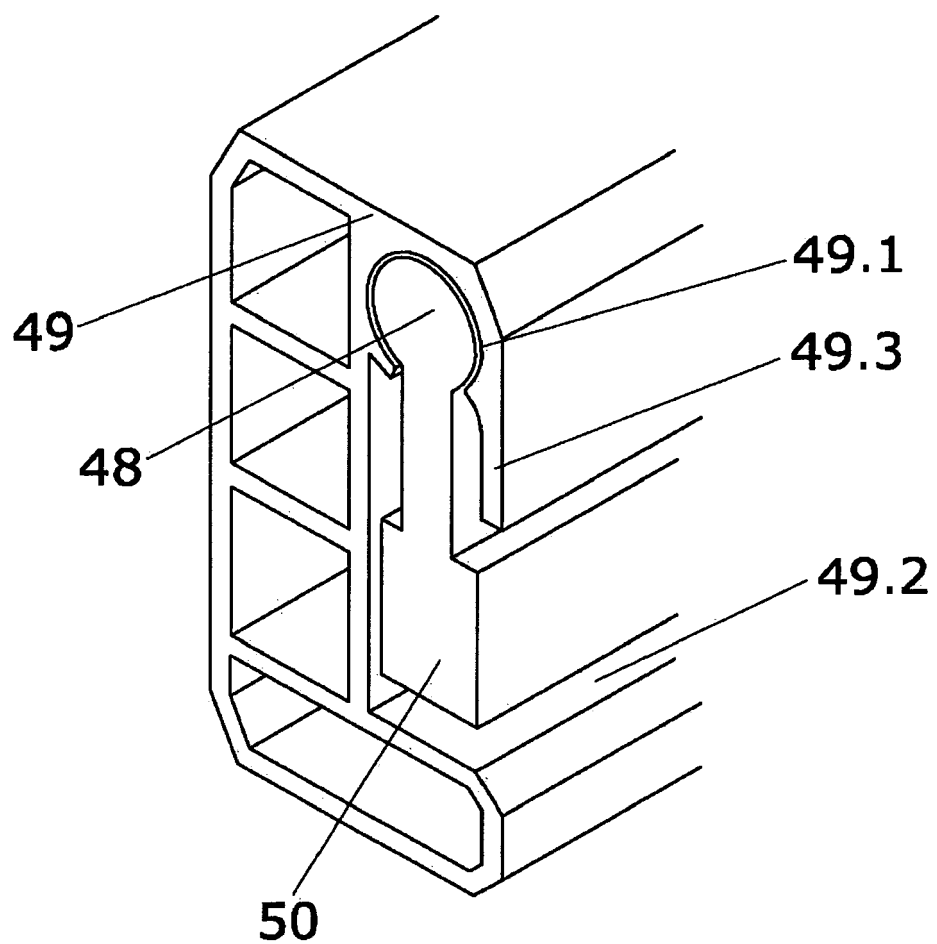


FIG. 19