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(54) **ANCHORAGE SYSTEM WITH ADJUSTABLE BRACKETS FOR SCREENS SUCH AS SUNSHADES AND MOSQUITO NETS**

VERANKERUNGSSYSTEM MIT VERSTELLBAREN KONSOLEN FÜR BLENDE WIE SONNENROLLOS UND MOSKITONETZE

SYSTÈME D'ANCRAGE À SUPPORTS RÉGLABLES POUR ÉCRANS TELS QUE DES PARE-SOLEIL ET DES MOUSTIQUAIRES

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Description

FIELD OF THE INVENTION

[0001] The present invention substantially relates to screens, i.e. those devices for preventing light (in the case of darkening screens) or insects (in the case of fly screens) to enter the internal environments of offices or dwellings via openings in walls and in particular the screens which include the possibility of activating or deactivating the screen by activation on the part of the user (generally by moving a profile constrained at one side of the screen material and appropriately guided by a system of guides). The screens can be of two types: a roller blind, i.e. rolled up on a cylindrical profiled element, and a pleated screen, i.e. folded up on itself. The invention can be applied on both types of screens but will be described with reference to the roller type, given that especially for this type the advantages obtainable enable significantly improving the installation and functioning.

DESCRIPTION OF THE PRIOR ART

[0002] EP 2 031 179 A2 describes an anchoring system according to claim 1, comprising brackets to facilitate mounting of screens such as solar shades and fly screens inside irregular openings for windows or doors, the screens being of the type comprising a screening sheet, a box, guides and a handle, whereby the profiles forming the elements of the screen can be secured onto the respective sides of the opening by the interposition of the specific fixing brackets, on which said profiles can be snappingly restrained.

[0003] Roller screens (destined for openings having a rectangular shape) generally include a screening sheet comprised between a box profile (in which on entering the sheet is rewound about a winder roller) and a second profile. Generally (with the exception of some special screens) the box profile is fixed or constrained at one of the four sides of the wall opening and the second profile takes the function of a handle and is destined to unwind/rewind the sheet when operated by the user. The invention will be described with reference to a screen with this type of construction but is also applicable to the type with a movable box profile.

[0004] The sheet, stretched beneath the box profile and the handle profile, generally has the remaining two sides thereof inside profiles known as lateral guides. The lateral guides guide the running of the handle profile and, on receiving the edges of the sheet internally thereof, ensure the complete closure of the opening, respectively preventing insects from getting around the screen and the light to filter inside a room in the form of glare.

[0005] On the opposite side to the one where the box profile is located, there might be a fourth profile generally known as the closing profile which has the function of anchoring the handle profile (with the screen activated) and with this realise the seal against light or insects on

the fourth side; this profile is generally present in the versions in which the winder roller is arranged vertically i.e. in screens destined for openings that are much taller than they are wide (doors).

[0006] Almost all the screens at present on the market are located inside the opening by means of an installation in which the various elements, previously described, are fixed one at a time in a succession indicated by the constructor; for example the mounting can start from the fixing of the box (in the majority of the products at present available on the market by fastening screws located at small flanges projecting from the caps located at the ends thereof), and then the closure profile if present and lastly the fixing of the two guides. Gradually, as these elements are added, they are located on the sides of the opening and can be fixed in seats or joints on the previously-fixed elements. In the majority of cases the profiles are fixed directly and restingly (over the whole length thereof) on the sides of the opening.

[0007] Any producer of screens, as well as installers of screens, knows well that the main problem of screens originates from the step of mounting them inside the opening.

[0008] Almost no opening in rooms destined for the use of people, whether of modern construction or older, has a perfectly regular shape. When measuring to the accuracy of millimetres it is frequently found that the real shape of an opening is very often trapezoid. The heights of the right side and the left side can differ to the extent of several millimetres, even reaching a centimetre; the right side and the left side of the opening might not be perfectly parallel; the surfaces of the sides might not be perpendicular to the ideal plane on which the screen will be located.

[0009] The presence of these conditions gives rise to various issues for the screen installer.

[0010] The first issue is represented by the difficulty of defining the measurements for realising the screen; this requires special attention in a case where the opening has a trapezoid or, in general, irregular shape.

[0011] A second issue arises from the need, for the screen, to have the screening sheet stretched between perfectly parallel profiles to one another and perfectly perpendicular guides to the box for guiding the handle profile so that a different shape is not imposed on the screen that is different to the rectangular shape and consequently has a uniform tension over all of its surface.

[0012] This is because a screen (the almost totality of screening sheets are very poorly elastic) stretched between two profiles that are not perfectly parallel (even if only by a few degrees) or with ends that are not aligned cannot have a uniform tension and a "lumpy" shape. Aesthetic defects are evident and there can be created issues of early wear of some portions of the sheet with the repetition of winding and unwinding thereof.

[0013] The first issue, i.e. determining the measurements for the construction of the screen for a given opening, can be obviated by identifying the measurements of

the largest rectangle (ideal) that can be inserted in the opening. This is not always a simple operation and often a slight reduction (using a certain degree of approximation) in the height and width measurements detected at some points of the opening is the choice of the installers so as not to have issues when mounting the screen.

[0014] The second issue arises in all those cases where a screen is to be mounted inside an irregular opening. This may lead to a situation in which the screen is a little smaller than the opening to which it is destined, due to the excessive approximation used in calculating the measurements for construction.

[0015] The products at present on the market offer a series of solutions for enabling the dimensions of the screen to be adapted to those of the opening, such as, for example, accessories placed on the ends of the profiles that can allow for a certain degree of telescopic adaptation; but these specifications, by locating the profiles resting on the respective sides of the opening, do not prevent the screen from having an irregular shape which jeopardises its functioning.

[0016] The solution in these cases is to expect a very careful installation on the part of the installer, who takes much time to create, using her or his craft, a series of compensation elements on which to rest the profiles and hide the remaining spaces with an insulation.

SUMMARY OF THE INVENTION

[0017] It is therefore one of the aims of the invention to obviate the above issues by providing a bracketing system that enables constraining the profiles of the screen at the sides of the opening, leaving the installer with the possibility of precisely adjusting, at each anchoring bracket, the distance between the profile and the respective side of the opening.

[0018] With the present invention, due to the shape of the opening, the inclination of the side, the surface imperfections advantageously no longer have an influence on the correct mounting of the profiles and in general the shape of the opening (generally irregular) and the screen (necessarily regular) are, so to say, "disconnected" by the interposing of adjustable anchoring brackets which enable a compensation, at the points of application, of the differences existing between them.

[0019] In a special characteristic of the present invention, each bracket, fixable to the opening by means of a fastening screw with the possibility of adjusting the distance between the opening and the bracket, has a point of mechanical engagement (preferably a snap fit) which enables anchoring (and possibly detaching) the profile thereof. The result is that the profile is fixable to the opening while maintaining it at a variable distance as desired at each bracket.

[0020] By closing the space that can form between the profile and the opening, preferably by means of a flexible gasket such as for example a brush, a solution widely used in the field of screens, the use of the brackets of

the invention enables a rapid and simple installation for the installer and leaves the user with the possibility of removing and relocating the screen (to comfortably perform cleaning, to avoid leaving the screens on the outside during the winter, for maintenance operations) without having to repeat the adjustment of the brackets, given that when detaching and reattaching the profiles they do not lose the adjusted position when remounted.

BRIEF DESCRIPTION OF THE DRAWINGS

[0021] A better understanding of the invention will emerge from the following detailed description and with reference to the accompanying figures which illustrate, purely by way of non-limiting example, a preferred embodiment and some variants.

[0022] In the drawings:

figure 1 illustrates a screen inserted in a clearly-irregular opening provided with compensating brackets;

figure 2 is a larger-scale (vertical) section of a portion of the screen, made at one of the fixing brackets;

figure 3 shows another larger-scale section (horizontal) of a portion of the screen, again realised at the fixing bracket and which enables observation of how to make the joint between the bracket and guide;

figure 4 illustrates the fixing of the box to the anchoring bracket due to a perpendicular section to the winding axis;

figures 5 and 6 illustrated one of the possible realisations of the fixing bracket and it is possible to see the special conformation of the seat of the screw head which constrains the bracket solidly to the screw head except for the rotation about the screw axis;

figures 7 and 8 illustrate the guide section (at the anchoring bracket) provided with a flexible gasket (such as for example a brush inserted over the whole length of the profile). Figure 8 illustrates a case where the opening has a rest surface that is not perpendicular to the plane containing the screen and illustrates how the bracket offers an attachment that is always correct independently of the irregularities of the opening;

figure 9 illustrates the section of the box, provided with a flexible gasket, at the anchoring bracket;

figure 10 shows the section of the guide with the guide fitted with a compensation profile which illustrates an alternative system to the flexible gasket for closing the space that there might be between the

guide profile and the side of the opening;

figure 11 is a vertical section of the guide fitted with the compensation profile, which illustrates how the fixing bracket can be equipped with elastic fins which keep the compensation profile in contact on the side of the opening on which the guide is positioned;

figures 12 and 13 illustrate one of the possible variant embodiments of the adjustable anchoring bracket, in this case made up of two parts which when assembled together confine the head of the fastening screw and make the bracket solid to the screw head. The bracket illustrated has thrust fins which oppose accidental rotation of the bracket during assembly of the profiles and which keep any compensation profiles in contact with the side of the opening;

figure 14 illustrates an accessory which can be coupled to the fixing bracket and which in the following will be termed a counter-bracket;

figure 15 shows the configuration of the bracket plus the counter-bracket accessory. This combination enables attachment of a profile while leaving a free variable distance (within a certain range) from the surface on which it is attached;

figure 16 illustrates the ways in which it is possible to constrain a levelling cord provided with a small weight and interposing an end thereof between the terminal part of the thrust fin and the surface of the opening to which the fin goes into contact (with the bracket mounted);

figures 17 and 18 illustrate the mounting procedure of the brackets using aligning cords.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0023] With reference to the above-described figures, a further special characteristic of the invention is that it does not require the direct resting of the profiles that make up the screen, (i.e. the box, the guides and the closing profile, if present) on the respective sides of the opening but instead interposes fixing brackets on which the profiles are attached, which brackets can be moved away from/neared to the corresponding side of the opening, being axially integral with the head of the fastening screw, by means of rotation thereof, so as to facilitate the mounting of screens inside the openings.

[0024] Figure 1 illustrates a vertically-acting screen (where the screening sheet (6), the box (4), the guides (3) and the handle (33) can be observed) having a regular shape inserted in an opening having an irregular shape (5); clearly, between the screen and the opening a space (7) is afforded the width of which (figure 3) varies from point to point along the border of the screen. The same

figure includes an illustration, in a small section, of one of the fixing brackets (1) complete with the screw with which it has been constrained to the side of the opening.

[0025] In figure 2 and figure 3 the bracket (1) is illustrated in detail in one of the possible realisations thereof and with the special inner cavity (9), which is the seat for the head (8) of the fastening screw (2).

[0026] The bracket is further provided, in this embodiment, with projections (11) appropriately shaped to remain jointed to the profiles at the fins (12) and at the same time to afford them the possibility of being detached by application of a certain degree of force.

[0027] As mentioned in the foregoing, the fixing bracket (1) internally contains a special cavity (9) which axially confines the head (8) of the screw (2), while leaving it free to rotate about its axis, making, mechanically speaking, the bracket an extension of the screw (2).

[0028] Through an opening (10) in the bracket (1), a screwdriver can be inserted in the head of the screw in order to screw the screw complete with the bracket to the opening (5). The screw (2) can be provided with a plastic plug or can be self-tapping and made of the material of which the opening (5) is made or can be a metric screw having a screw nut which is integral with the opening (5) but in any case the adjustment principle of the bracket remains unchanged: the screw (2) will be engaged in the opening (5) over a minimum length (required to ensure the secure fastening thereof) and starting from there it can further be screwed gradually bringing the bracket (1) close to the wall. Thus the distance covered by the bracket up to contact with the wall represents the adjustment range.

[0029] By completely screwing the screw (2) in, the bracket (1) can be brought to contact on the side of the opening (5), realising the contact of the profile thereon, or unscrew the screw up to reaching the desired distance (keeping however a length of screw sufficiently long engaged in order to guarantee that the fastening is retained). At this point the overall profile of the screen might be attached, with a snap-fit, to the bracket (1).

[0030] Each element of the screen can be fastened with a minimum of two brackets (1) for each profile; it is obvious that by appropriately distancing each bracket it will be possible to realise the configuration illustrated in figure 1 by carrying out, for each bracket (1), the operations described in the foregoing. As is clear, as well as being easy to install even where there are irregularly shaped openings, there is a total absence of screws in view when the screen is installed. A small mechanical clearance is provided between the bracket and the corresponding profile to compensate for any inaccuracies when drilling the fastening holes.

[0031] Figures 5 and 6 illustrate a possible realisation of the bracket (1) and the cavity (9) according to the outline of the head (8) of the screw (2), which may, in general, have the shapes generally adopted for the standard screws as well as non-standard shapes. The figure illustrates an embodiment of the bracket (1) which might, by

way of example, be realised by printing the bracket in plastic material on the head (8) of the screw (2). In the following there will be a description (figures 12 and 13) of one of the other variant embodiments, which includes the bracket (1) made in two components which when mechanically assembled together form the cavity (9) in which the head (8) will be confined.

[0032] The projections (11) represent a possible conformation for realising the snap couplings with respect to the fins (12) present on the profiles of the screen, while, by way of example, the openings (13) give a certain elasticity to the projections (11) during the snap-hooking on the profile. The surface (14) can rest on the profile in order to prevent relative movements between the profile and the bracket.

[0033] Figures 7, 8 and 9 illustrate the possibility of closing the space (7) by use of a flexible gasket (15) such as for example a brush which stretches all about the screen. In particular, figure 8 illustrates the case in which the rest surface of the opening (5) is not perpendicular to the plane of the screening sheet and how the bracket, inserted in a specially made hole parallel to the plane of the fabric, obviates the problem of assembly that at present requires the use of specially-profiled shims, while the flexible gasket 15 appropriately closes the space 7.

[0034] Figures 10 and 11 illustrate the possibility of using the bracket (here represented in the alternative embodiment 1') with the solution known as the "telescopic guide", i.e. with the guide (3) provided with a profile (16) that performs the closing function with respect to the space (7), the profile (16) being splined on one side on the guide (3) and on the other side being arranged by the installer in contact with the surface of the opening (5). The bracket in this case will be advantageously realised with two elastic legs (17) to keep the compensation profile (16) against the surface of the opening without having to make further holes in addition to those intended for the brackets themselves.

[0035] As already described, the head (8) of the screw (2) must obviously be able to rotate about the axis thereof with respect to the body of the bracket (1') (as the sole degree of freedom) given that during the calibration the bracket (1') must only translate with respect to the profile (16).

[0036] Figures 12 and 13 illustrate the embodiment of the bracket (1"), where the space (9) intended to confine the head (8) of the screw (2) is located between the bracket (1") and a component (19) which contains a part of the cavity (9), denoted by numeral (22).

[0037] In the example of the present description, the joint between 1" and 19 is done by sliding the component (19) internally of the bracket (1") and jointing the projections (21) of the component (19) at the position of the projections (20) of the bracket (1"). Lastly, the bracket (1") is completed by the elastic fins (17").

[0038] The counter-bracket (23) illustrated in figures 14 and 15 is an accessory of the bracket that enables attaching a profile while leaving a certain freedom of

movement and this, as will emerge in detail from the following, simplifies the mounting of the screen. The counter-bracket has a flat middle part (31) provided with a hole (29) for a fastening screw and two thrust fins (24) ending with a hook (25) intended for an opening (26) of the bracket (1'). When the bracket (1") is used in combination with the counter-bracket (23), the fixing of the assembly is done by screwing the counter-bracket to the wall with a screw in the hole (29) (which screw might have a countersunk head (30)). The profile is attached to the bracket and thus remains constrained in a non-rigid way.

[0039] Figure 16 illustrates a bracket (1") following mounting (thus with the fins (17")) which exert a given thrust on the resting points with respect to the surface of the opening (5) and following the inserting of the end (27') of the cord (27) (provided with a small weight (28)) between the end (32) of the fin (17") and the surface on which the end is resting. The weight (28) will be sufficiently heavy to keep the cord straight and vertical but not enough to succeed in removing the length (27') from the end (32).

[0040] Figure 17 illustrates the first step of the mounting sequence of the screen (reference will be made to the version with the box 4 at the top) inside an opening (5) having an irregular shape using aligning cords (27). The holes of the two upper brackets (1") are made to the right and left of the opening (5). The brackets (1") are mounted and are positioned so that the distance between them (distance "a") is equal to the length of the screen less twice the thickness of the bracket (1"). Two cords (27) are inserted, one for each bracket as illustrated in figure 16, and a check is made that the distance of the cords (27) with respect to the opening (5) (distance "b") is at no point smaller than the thickness of the bracket. If this check gives a negative result it will be necessary (in the same measure and direction) to move the brackets so that the check has a positive outcome.

[0041] At this point it remains only to bore the remaining holes, using the cords as reference, mount the brackets and, again using the cords, adjust the brackets to the correct distance.

[0042] For the fixing of the profiled box 4 it may be advantageous to use the brackets (1") complete with counter-brackets (23), as illustrated in figure 18. The only point requiring special attention is to make the two holes in the same plane that contains the holes of the brackets (1") already mounted (this type of special attention is obviously required for the mounting of any screen available on the market).

[0043] With the brackets (1") mounted, complete with counter-bracket (23) (with the screw 2 in the hole (29)) on the high part of the opening (5), it only remains to attach the profiled box (4) thereon. At the moment when the lateral guides (3) are fixed they will hook to the ends of the box (the expert in the sector knows that this can easily be realised with appropriate joints, as is the case with the majority of the existing products) and, at the mo-

ment in which they will be fixed to the respective brackets, they will bring the box into the position of figure 18. The elastic nature of the fins (17 and 24) will lead to a thrust (appropriately calibrated by means of the choice of materials and geometries thereof) on the box which in turn will transmit to the guides, preventing the guides from being raised from the lower threshold of the opening and causing space to form between the guides and the box.

[0044] In figure 18 the brackets (1") and the counter-brackets (23) are represented with the fins (17") and (24) deformed as a function of the outline shape of the opening (5) and the dimensions of the screen.

[0045] As well as the assembly modality as described in the foregoing, it will obviously be possible to position the brackets (1') without the aid of the cords (27) by means of an adjustment made by the installer, in any case facilitated, with respect to the present installation systems, by the possibility of adjusting the bracket with respect to the side of the opening and by the possibility of attaching and detaching the profiles.

[0046] Lastly, it is worth noting that although the description above has made reference to some example embodiments relating to screens that roll up inside a box, the present invention is applicable - directly and with the same advantages - also to pleated screens, where the "box" is termed differently according to the producers, such as for example "back", and in any case the term "box" refers to the profile in which the screen, whether rollable (wound) or pleated (folded) is housed during periods of non-use.

Claims

1. An anchoring system comprising brackets (1, 1', 1") to facilitate mounting of screens such as solar shades and fly screens inside irregular openings (5) for windows or doors, the screens being of the type comprising a screening sheet (6), a box (4), guides (3) and a handle (33), whereby the profiles forming the elements of the screen can be secured onto the respective sides of the opening by the interposition of the specific fixing brackets (1, 1', 1"), on which said profiles can be snappingly restrained, the anchoring system being **characterized in that** said brackets (1, 1', 1") are adjustable and can be moved away from/close to the corresponding side of the opening, since they are axially integral with the head of a fastening screw (2) which is operatively connected to the bracket (1, 1', 1") and can be screwed to the side of the opening (5).
2. A system according to the preceding claim, **characterized in that** each bracket (1) is provided with an inner cavity (9) for accommodating the head (8) of the fastening screw (2); wherein said cavity (9) is configured to axially confine the head (8) of the screw (2), thus leaving it free to rotate about its axis; thus obtaining that the bracket is mechanically restrained to the screw (2).
3. A system according to claim 1 or 2, **characterized in that** said bracket is provided with side projections (11) configured to be removably coupled in an interlocking manner to said profiles at specific fins (12) provided in the profiles themselves.
4. A system according to one of the preceding claims, **characterized in that** each bracket (1, 1', 1") is provided with a specific opening (10) where a screwdriver may be inserted into the head of the screw (2) to screw/unscrew the screw along with bracket, to one side of the opening (5); wherein said screw 2 is provided with a plastic plug or is self-tapping and made of the material of which the opening (5) is made or is a metric screw having a screw nut which is integral with the opening (5).
5. A system according to one of the preceding claims, **characterized in that** each screw (2) can be engaged in the opening (5) over a minimum length equal to at least that required to ensure the secure fastening thereof.
6. A system according to one of the preceding claims, **characterized in that** each element of the screen can be fastened with a minimum of two brackets (1) for each profile; wherein a small mechanical clearance is provided between each bracket and the corresponding profile to compensate for any inaccuracies when drilling the fastening holes.
7. A system according to claim 2, **characterized in that** said brackets can be made of plastic material directly on the head (8) of the screw (2), or can be made separately in two components which can be mechanically assembled to each other and configured to jointly form the cavity (9) where the head (8) is confined.
8. A system according to claim 3, **characterized in that** openings (13) are provided in the brackets (1) at said projections (11) configured to achieve the snap coupling to the fins (12) on the profiles of the screen, said openings (13) being configured to provide the projections (11) with a given elasticity when snappingly inserted on the profile.
9. A system according to one of the preceding claims, **characterized in that** a front surface (14) is provided on each bracket, configured to abut on the profile in order to avoid relative movements between the later and the bracket itself.
10. A system according to one of the preceding claims, **characterized in that** a flexible gasket (15) made

of rubber or consisting of a brush arranged all around the screen is provided to close a space (7) between a profile and the respective side of the opening (5) to which it is fastened, even if the resting surface of the opening (5) is not perpendicular to the plane of the screening frame.

11. A system according to one of the preceding claims, **characterized in that** each guide (3) is provided with a compensation profile (16) telescopically connected to the guide itself to conceal a space (7) between the profile of the guide and the respective side of the opening (5) to which it is fastened; wherein said compensation profile (16) is fitted onto the guide (3) on one side and is placed in contact on the surface of the opening (5) on the other side; here, the bracket (1') being provided with two elastic legs (17) configured to keep the compensation profile (16) against the surface of the opening without further holes in addition to those intended for the brackets themselves.
12. A system according to claim 2, **characterized in that** a bracket (1") is provided, where the space (9) intended to confine the head (8) of the screw (2) can be obtained by forming said bracket (1") with a component (19) which contains a part (22) of the cavity (9); wherein said component (19) and the bracket (1") can be joined by mutually sliding and can be interlocked by means of the projections (21) provided in the component (19) at specific projections (20) in the bracket (1"), which is further provided with elastic fins (17").
13. A system according to the preceding claim, **characterized in that** said bracket (1") is provided with a counter-bracket (23) which can be restrained to a profile, giving it a certain freedom of movement, wherein the counter-bracket (23) has a flat middle part (31) provided with a hole (29) for a fastening screw and two thrust fins (24) ending with a hook (25) intended for an opening (26) of the bracket (1').
14. A system according to claim 11 or 12, **characterized in that** the fins (17, 17") are configured to exert a given thrust on the resting points with respect to the surface of the opening (5) and are provided with an end (32, 32") wherein an end (27') of a cord (27) provided with a small weight (28) can be inserted; said weight (28) being sufficiently heavy to keep the cord straight and vertical but not enough to succeed in removing the length (27') from the end (32).

Patentansprüche

1. Verankerungssystem, umfassend Halterungen (1, 1', 1") zur Erleichterung der Montage von Abschir-

mungen wie Sonnenschutzbehängen und Fliegengittern innerhalb unregelmäßiger Gebäudeöffnungen (5) für Fenster oder Türen, wobei die Abschirmungen der Art sind, die einen abschirmenden Behang (6), einen Kasten (4), Führungen (3) und einen Griff (33) umfassen, wobei die Profile, welche die Elemente der Abschirmung bilden, an den entsprechenden Seiten der Gebäudeöffnung befestigt werden können, indem die speziellen Befestigungshalterungen (1, 1', 1"), auf denen die Profile einrastend festgelegt werden können, dazwischen eingefügt werden, wobei das Verankerungssystem **dadurch gekennzeichnet ist, dass** die Halterungen (1, 1', 1") verstellbar sind und von der entsprechenden Seite der Gebäudeöffnung wegbewegt bzw. dieser angenähert werden können, da sie axial einteilig mit dem Kopf (8) einer Befestigungsschraube (2) ausgeführt sind, die mit der Halterung (1, 1', 1") wirkverbunden ist und an die Seite der Gebäudeöffnung (5) angeschraubt werden kann.

2. System nach dem vorhergehenden Anspruch, **dadurch gekennzeichnet, dass** jede Halterung (1) einen inneren Hohlraum (9) zur Aufnahme des Kopfes (8) der Befestigungsschraube (2) aufweist; wobei der Hohlraum (9) dafür ausgelegt ist, den Kopf (8) der Schraube (2) axial so einzugrenzen, dass sie sich noch frei um ihre Achse drehen kann, und somit zu erreichen, dass die Halterung mechanisch an der Schraube (2) festgelegt ist.
3. System nach Anspruch 1 oder 2, **dadurch gekennzeichnet, dass** die Halterung mit seitlichen Vorsprüngen (11) versehen ist, die dafür ausgelegt sind, abnehmbar und einrastend mit den Profilen an speziellen Lamellen (12) gekoppelt zu werden, die in den Profilen selbst vorgesehen sind.
4. System nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** jede Halterung (1, 1', 1") mit einer speziellen Öffnung (10) versehen ist, durch die ein Schraubendreher in den Kopf (8) der Schraube (2) eingeführt werden kann, um die Schraube, zusammen mit der Halterung, an einer Seite der Gebäudeöffnung (5) an-/abzuschrauben; wobei die Schraube (2) mit einem Kunststoffdübel ausgestattet ist oder eine selbstschneidende Schraube in dem Material ist, aus dem die Gebäudeöffnung (5) besteht, oder eine metrische Schraube, die eine einteilig mit der Gebäudeöffnung (5) verbundene Schraubenmutter aufweist.
5. System nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** jede Schraube (2) über eine Mindestlänge mit der Gebäudeöffnung (5) in Eingriff gelangen kann, die mindestens gleich der Länge ist, die für deren sichere Befestigung erforderlich ist.

6. System nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** jedes Element der Abschirmung mit mindestens zwei Halterungen (1) je Profil befestigt werden kann; wobei ein geringes mechanisches Spiel zwischen jeder Halterung und dem entsprechenden Profil vorgesehen ist, um eventuelle Ungenauigkeiten beim Bohren der Befestigungslöcher auszugleichen.
7. System nach Anspruch 2, **dadurch gekennzeichnet, dass** die Halterungen aus Kunststoffmaterial direkt auf dem Kopf (8) der Schraube (2) hergestellt sein können, oder separat aus zwei Komponenten, die mechanisch miteinander verbunden werden können und dafür ausgelegt sind, gemeinsam den Hohlraum (9) zu bilden, der den Kopf (8) eingrenzt.
8. System nach Anspruch 3, **dadurch gekennzeichnet, dass** in den Halterungen (1) an den Vorsprüngen (11), die für die Verwirklichung der einrastenden Kopplung an die Lamellen (12) auf den Profilen der Abschirmung ausgelegt sind, Öffnungen (13) vorgesehen sind, wobei diese Öffnungen (13) dafür ausgelegt sind, den Vorsprüngen (11) eine vorgegebene Elastizität zu verleihen, während sie auf dem Profil eingerastet werden.
9. System nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** eine vordere Oberfläche (14) auf jeder Halterung vorgesehen ist, die dafür ausgelegt ist, gegen das Profil anzuschlagen, um Relativbewegungen zwischen dem zuletzt genannten und der Halterung selbst zu vermeiden.
10. System nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** eine flexible Dichtung (15) vorgesehen ist, die aus Gummi hergestellt ist oder aus einer um die gesamte Abschirmung herum angeordneten Bürste besteht, um einen Raum (7) zwischen einem Profil und der entsprechenden Seite der Gebäudeöffnung (5), an dem dieses befestigt ist, zu verschließen, selbst wenn die Auflagefläche der Gebäudeöffnung (5) nicht orthogonal zu der Ebene des abschirmenden Behangs ist.
11. System nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** jede Führung (3) mit einem Ausgleichsprofil (16) ausgestattet ist, das teleskopartig mit der Führung selbst verbunden ist, um einen Raum (7) zwischen dem Profil der Führung und der entsprechenden Seite der Gebäudeöffnung (5), an dem diese befestigt ist, zu verbergen; wobei das Ausgleichsprofil (16) auf einer Seite auf der Führung (3) angebracht ist und auf der anderen Seite berührend auf der Oberfläche der Gebäudeöffnung (5) angeordnet ist; wobei hierin die Halterung (1') mit zwei elastischen Schenkeln (17) versehen ist, die dafür ausgelegt sind, das Ausgleichsprofil (16) gegen die Oberfläche der Gebäudeöffnung festzuhalten, ohne weitere Löcher zusätzlich zu den für die Halterungen selbst bestimmten zu erfordern.
12. System nach Anspruch 2, **dadurch gekennzeichnet, dass** eine Halterung (1'') vorgesehen ist, wobei der Hohlraum (9), der dafür bestimmt ist, den Kopf (8) der Schraube (2) einzugrenzen, erhalten werden kann, indem die Halterung (1'') mit einer Komponente (19) gebildet wird, die einen Teil (22) des Hohlraums (9) enthält; wobei die Komponente (19) und die Halterung (1'') durch eine wechselseitige Gleitbewegung miteinander verbindbar sind und mit Hilfe von Vorsprüngen (21) ineinander einrastbar sind, die in der Komponente (19) gegenüber entsprechenden, speziell hierzu bestimmten Vorsprüngen (20) in der Halterung (1'') vorgesehen sind, die ferner mit elastischen Lamellen (17'') versehen ist.
13. System nach dem vorhergehenden Anspruch, **dadurch gekennzeichnet, dass** die Halterung (1'') mit einer Gegenhalterung (23) versehen ist, die an einem Profil festgelegt werden kann, so dass eine bestimmte Bewegungsfreiheit verbleibt, wobei die Gegenhalterung (23) einen flachen mittleren Teil (31) aufweist, der mit einem Loch (29) für eine Befestigungsschraube und mit zwei Schublamellen (24) versehen ist, die mit einem Haken (25) enden, der für eine Öffnung (26) der Halterung (1'') vorgesehen ist.
14. System nach Anspruch 11 oder 12, **dadurch gekennzeichnet, dass** die Lamellen (17, 17'') dafür ausgelegt sind, eine vorgegebene Schubwirkung auf die Auflagepunkte relativ zu der Oberfläche der Gebäudeöffnung (5) auszuüben, und mit einem Ende (32, 32'') versehen sind, in die ein Endabschnitt (27') einer mit einem kleinen Gewicht (28) versehenen Schnur (27) eingeführt werden kann; wobei das Gewicht (28) ausreichend schwer ist, um die Schnur gerade und vertikal ausgerichtet zu halten, aber nicht schwer genug, um die Endabschnittlänge (27') aus dem Ende (32) herausziehen zu können.

Revendications

1. Système d'ancrage comprenant des supports (1, 1', 1'') pour faciliter le montage d'écrans tels que des pare-soleil et des moustiquaires à l'intérieur de baies irrégulières (5) pour fenêtres ou portes, les écrans étant du type comprenant une toile-écran (6), un caisson (4), des guides (3) et une poignée (33), où les profilés formant les éléments de l'écran peuvent être fixés sur les côtés respectifs de la baie par le biais de l'interposition des supports de fixation (1, 1', 1'') spécifiques, sur lesquels lesdits profilés peuvent être assujettis par emboîtement, le système d'ancra-

- ge étant **caractérisé en ce que** lesdits supports (1, 1', 1'') sont réglables et peuvent être éloignés/rapprochés du côté correspondant de la baie, dans la mesure où ils sont axialement solidaires de la tête (8) d'une vis de fixation (2) qui est opérationnellement associée au support (1, 1', 1'') et peut être vissée sur le côté de la baie (5).
2. Système selon la revendication précédente, **caractérisé en ce que** chaque support (1) est muni d'une cavité intérieure (9) pour loger la tête (8) de la vis de fixation (2) ; où ladite cavité (9) est configurée pour enfermer axialement la tête (8) de la vis (2), en la laissant libre de tourner autour de son axe ; obtenant ainsi que le support soit mécaniquement assujéti à la vis (2).
 3. Système selon la revendication 1 ou 2, **caractérisé en ce que** ledit support est muni de saillies latérales (11) configurées pour être accouplées de façon amovible par emboîtement auxdits profilés au niveau d'aillettes spécifiques (12) prévues dans les profilés eux-mêmes.
 4. Système selon l'une des revendications précédentes, **caractérisé en ce que** chaque support (1, 1', 1'') est doté d'une ouverture spécifique (10) où un tournevis peut être introduit dans la tête de la vis (2) pour visser/dévisser la vis avec support, d'un côté de la baie (5) ; où ladite vis (2) est munie d'une cheville en plastique ou est autotaraudeuse et réalisée dans le matériau avec lequel est réalisée la baie (5) ou est une vis métrique avec une vis-mère qui est solidaire de la baie (5).
 5. Système selon l'une des revendications précédentes, **caractérisé en ce que** chaque vis (2) peut être assujéti dans la baie (5) sur une longueur minimum égale à au moins la longueur requise pour en garantir la fixation sûre.
 6. Système selon l'une des revendications précédentes, **caractérisé en ce que** chaque élément de l'écran peut être fixé avec un minimum de deux supports (1) pour chaque profilé ; où un petit jeu mécanique est prévu entre chaque support et le profilé correspondant pour compenser les éventuelles imprécisions lors du perçage des trous de fixation.
 7. Système selon la revendication 2, **caractérisé en ce que** lesdits supports peuvent être réalisés en matière plastique directement sur la tête (8) de la vis (2), ou peuvent être réalisés séparément en deux composants qui peuvent être assemblés l'un à l'autre mécaniquement et configurés pour former ensemble la cavité (9) où la tête (8) est enfermée.
 8. Système selon la revendication 3, **caractérisé en ce que** des ouvertures (13) sont prévues dans les supports (1) au niveau desdites saillies (11) configurées pour obtenir l'accouplement par emboîtement avec les ailettes (12) sur les profilés de l'écran, lesdites ouvertures (13) étant configurées pour fournir aux saillies (11) une certaine élasticité lors de leur insertion par emboîtement sur le profilé.
 9. Système selon l'une des revendications précédentes, **caractérisé en ce qu'une** surface avant (14) est prévue sur chaque support, configurée pour buter sur le profilé afin d'empêcher tous mouvements relatifs entre ce dernier et le support lui-même.
 10. Système selon l'une des revendications précédentes, **caractérisé en ce qu'un** joint flexible (15) réalisé en caoutchouc ou constitué d'une brosse disposée tout autour de l'écran est prévu pour fermer un espace (7) entre un profilé et le côté respectif de la baie (5) auquel il est fixé, même si la surface d'appui de la baie (5) n'est pas perpendiculaire au plan de la toile-écran.
 11. Système selon l'une des revendications précédentes, **caractérisé en ce que** chaque guide (3) est muni d'un profilé de compensation (16) associé de manière télescopique au guide lui-même pour occlure un espace (7) entre le profilé du guide et le côté respectif de la baie (5) auquel il est fixé ; où ledit profilé de compensation (16) est calé sur le guide (3) d'un côté et est placé en contact sur la surface de la baie (5) de l'autre côté ; dans ce cas, le support (1') étant muni de deux jambes élastiques (17) configurées pour maintenir le profilé de compensation (16) contre la surface de la baie sans autres trous hormis ceux destinés aux supports eux-mêmes.
 12. Système selon la revendication 2, **caractérisé en ce qu'un** support (1'') est prévu, où la cavité (9) destinée à enfermer la tête (8) de la vis (2) peut être obtenue en formant ledit support (1'') avec un composant (19) qui contient une partie (22) de la cavité (9) ; où ledit composant (19) et le support (1'') peuvent être joints par coulisement mutuel et peuvent être emboîtés au moyen de saillies (21) prévues dans le composant (19) au niveau de saillies spécifiques (20) présentes dans le support (1''), qui est en outre muni d'aillettes élastiques (17'').
 13. Système selon la revendication précédente, **caractérisé en ce que** ledit support (1'') est muni d'un contre-support (23) qui peut être assujéti à un profilé, en lui donnant une certaine liberté de mouvement, où le contre-support (23) a une partie centrale plate (31) munie d'un trou (29) pour une vis de fixation et deux ailettes de poussée (24) se terminant par un crochet (25) destiné à une ouverture (26) du support (1').

14. Système selon la revendication 11 ou 12, **caracté-**
risé en ce que les ailettes (17, 17") sont configurées
pour exercer une poussée donnée sur les points
d'appui par rapport à la surface de la baie (5) et sont
munies d'une extrémité (32, 32") dans laquelle peut 5
être insérée une extrémité (27') d'un cordon (27) mu-
ni d'un petit poids (28) ; ledit poids (28) étant suffi-
samment lourd pour maintenir le cordon rectiligne et
vertical mais pas assez pour réussir à enlever la lon-
gueur (27') de l'extrémité (32). 10

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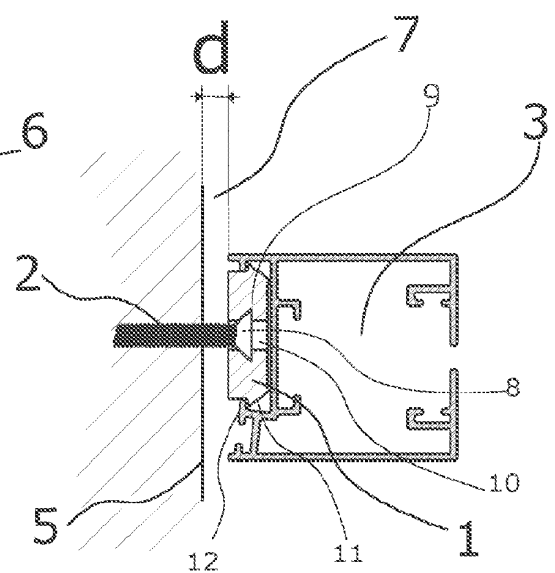
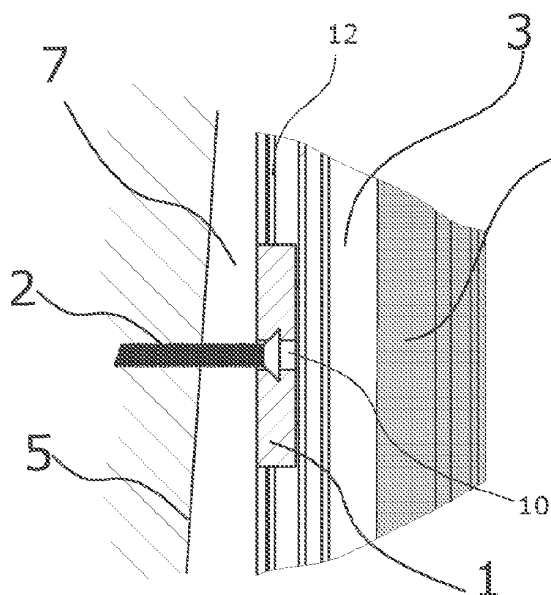
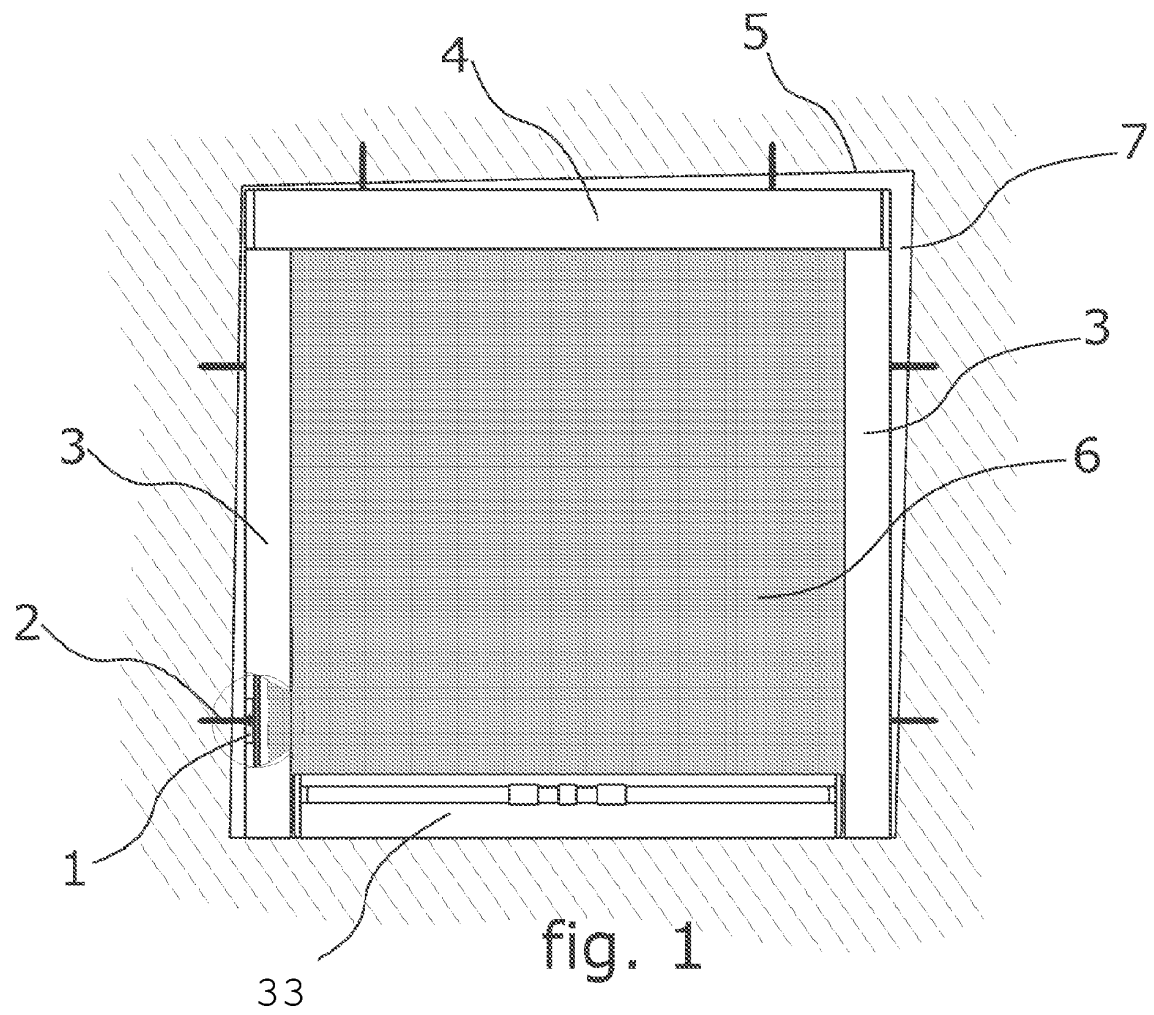
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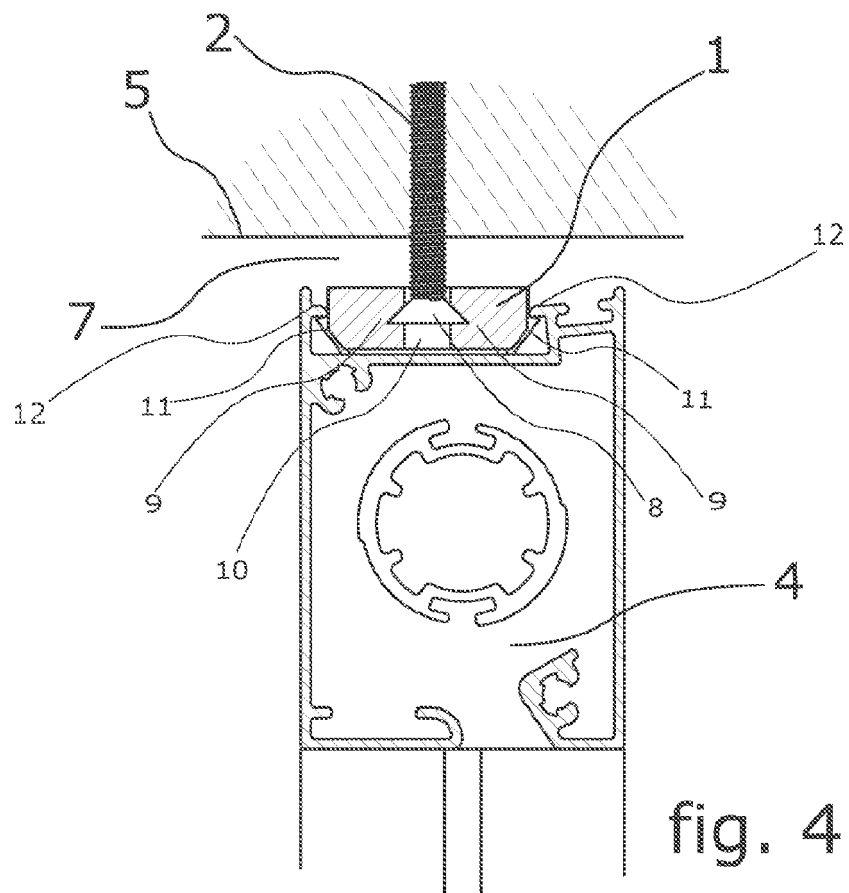


fig. 4

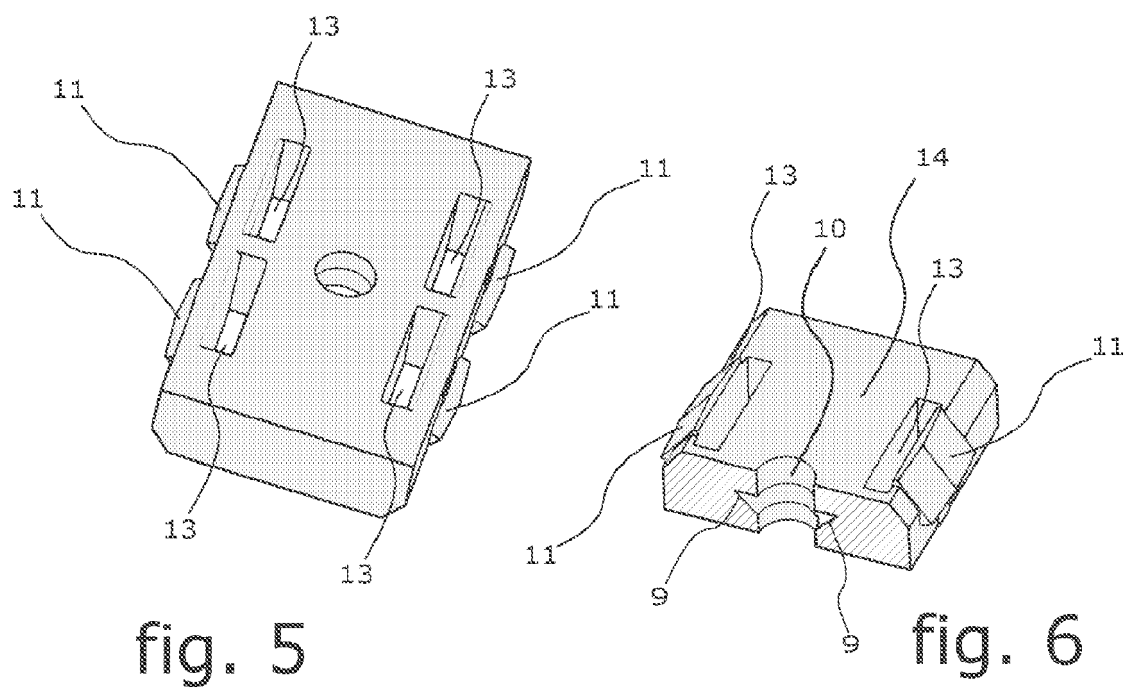


fig. 5

fig. 6

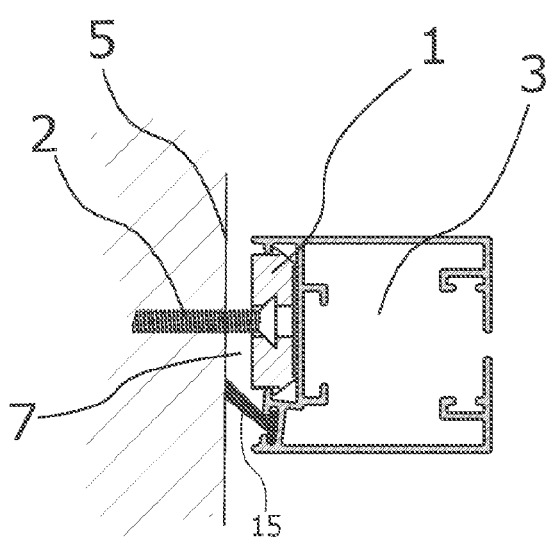


fig. 7

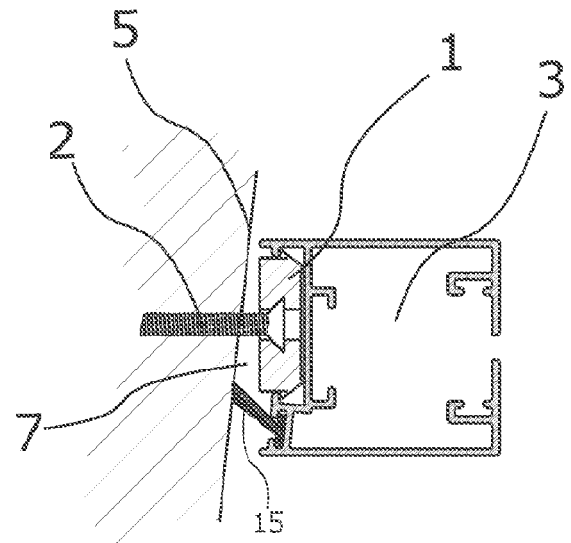


fig. 8

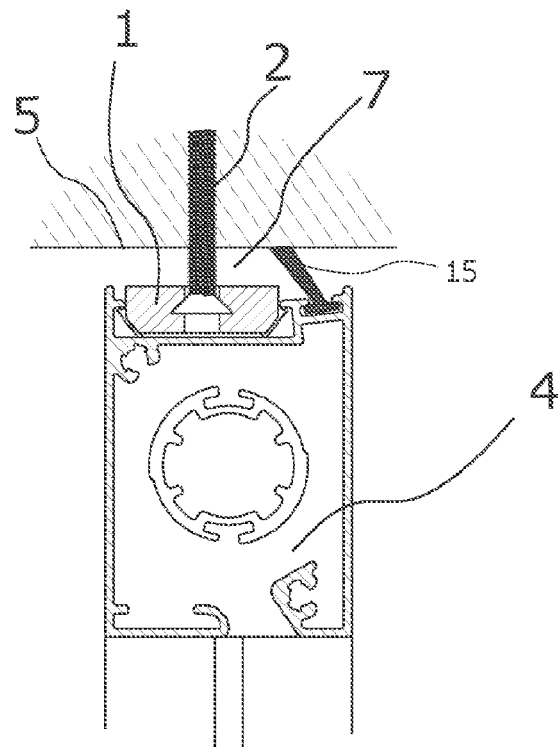
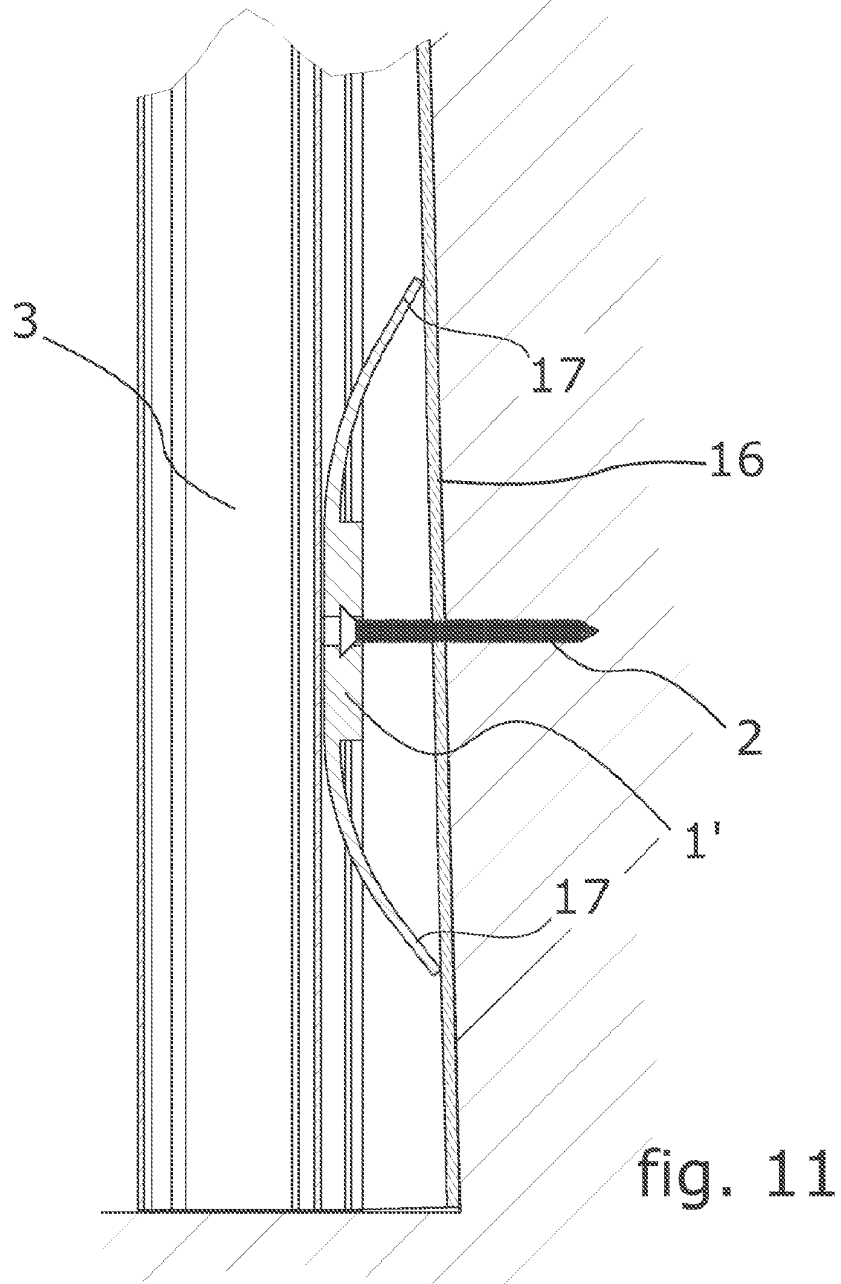
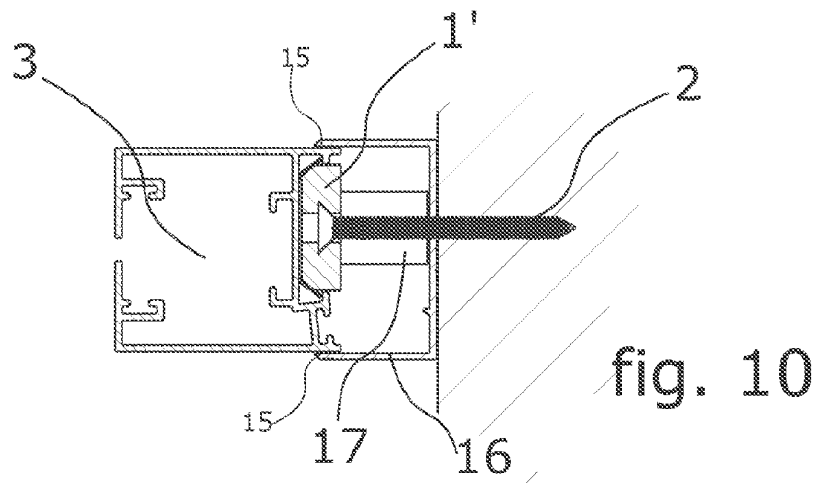


fig. 9



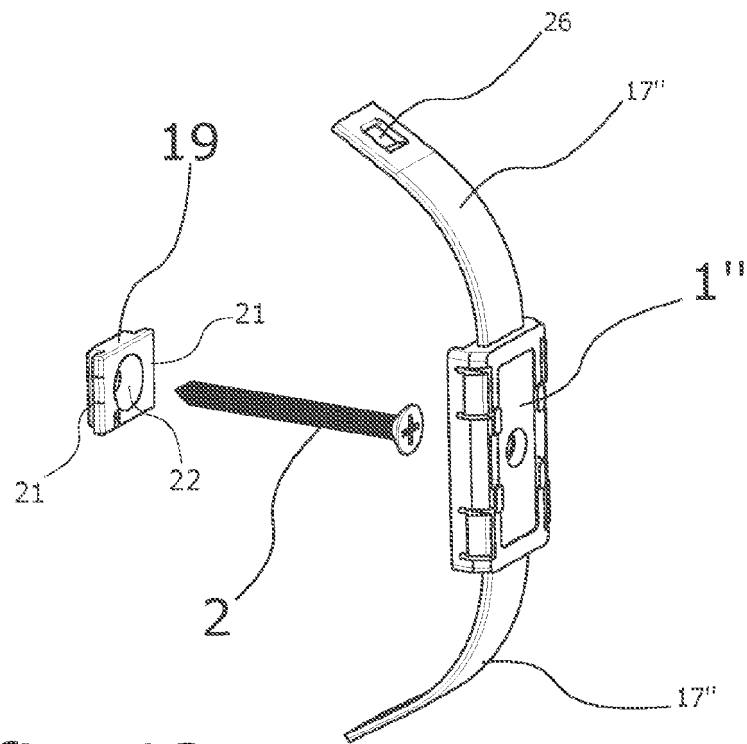


fig. 12

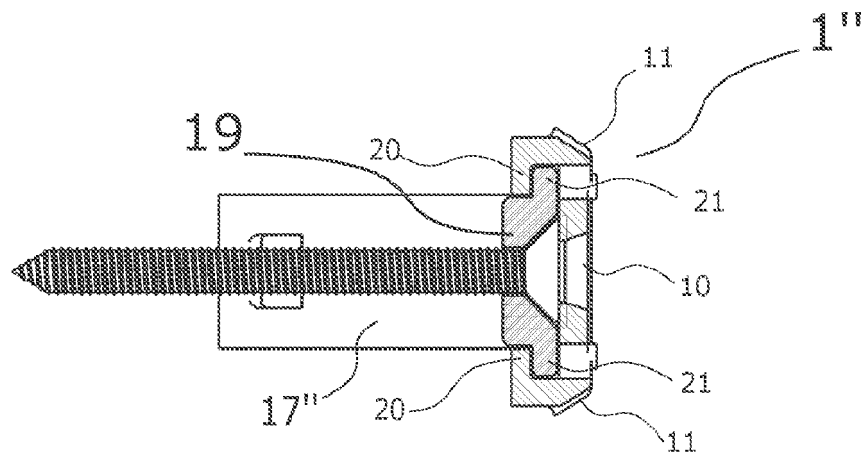


fig. 13

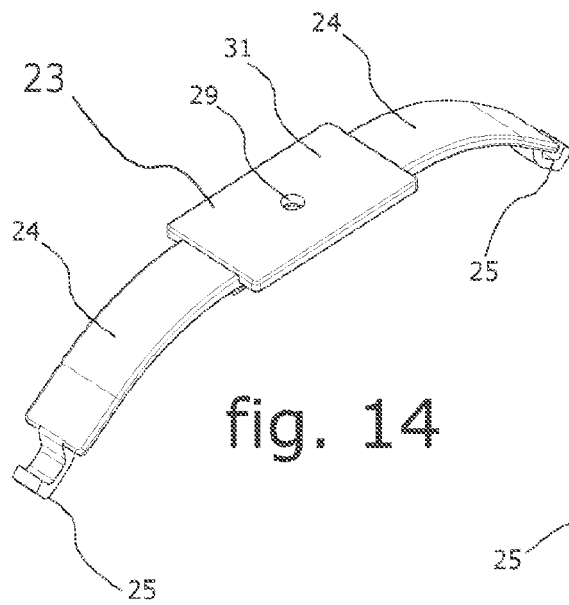


fig. 14

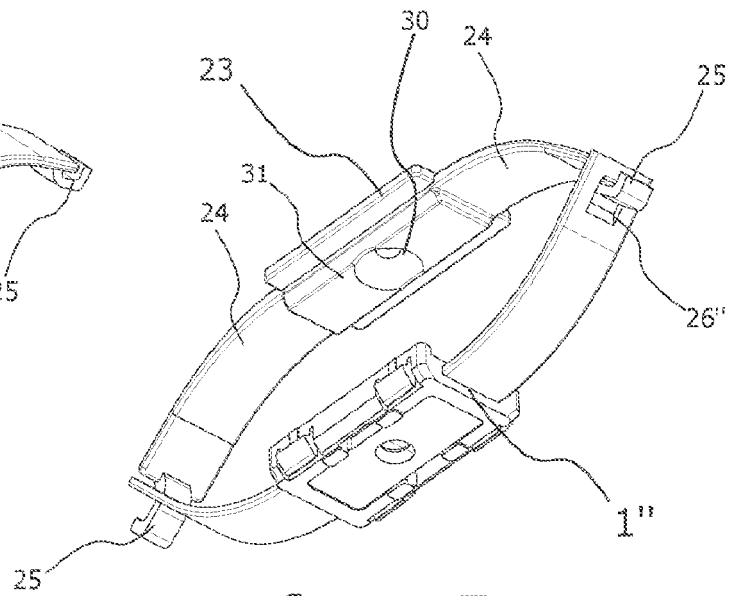


fig. 15

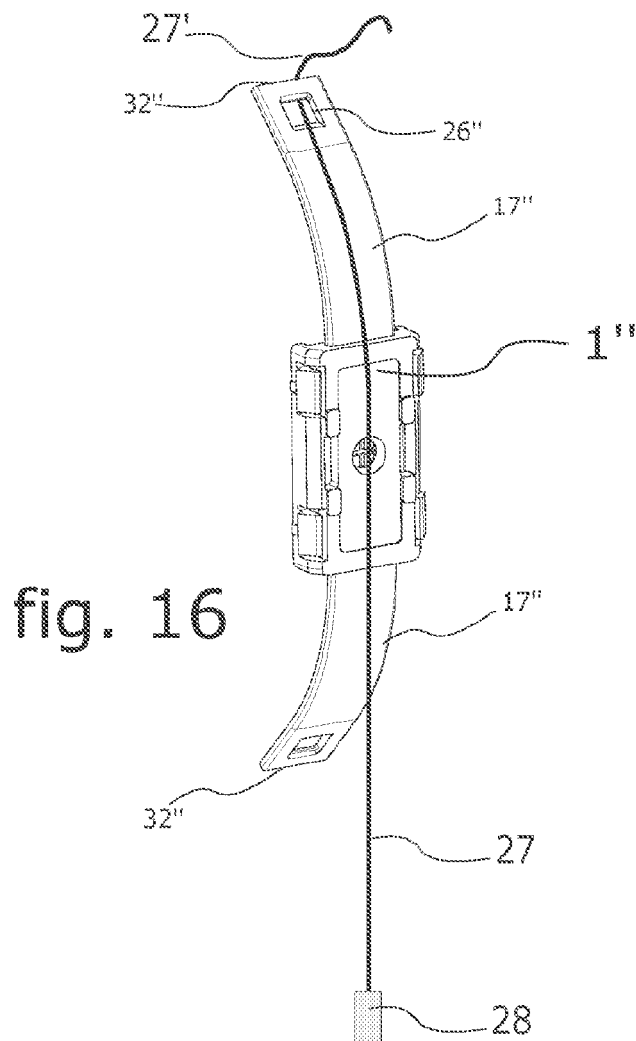
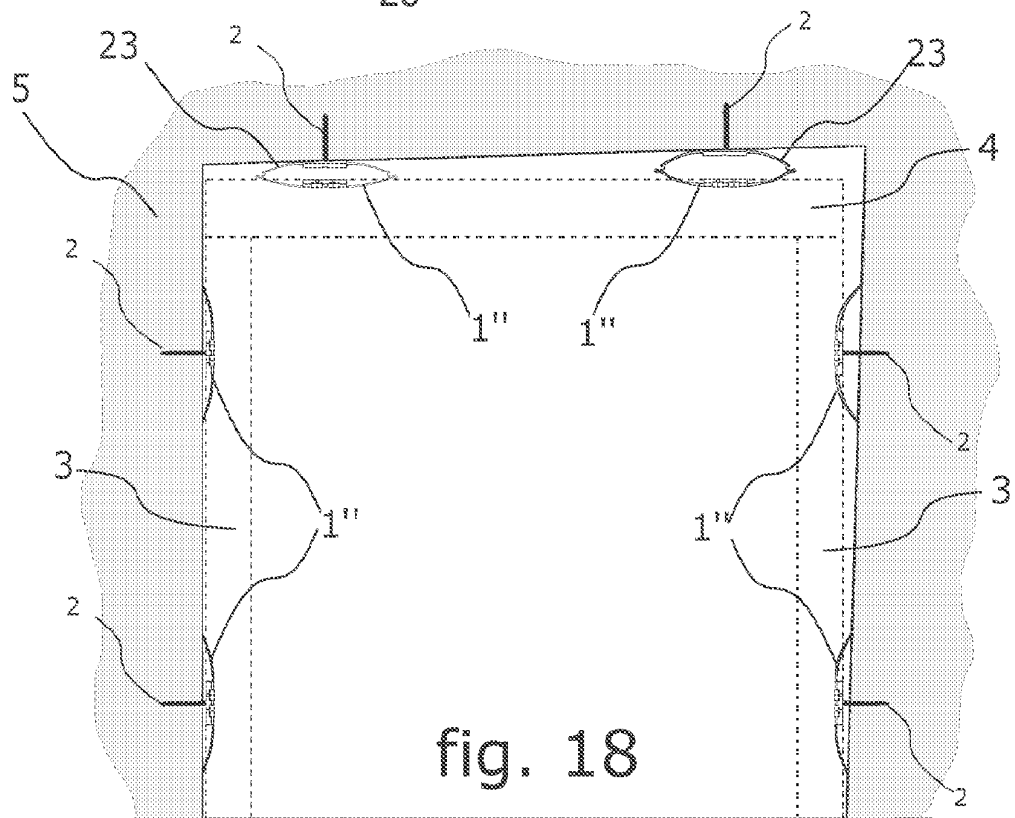
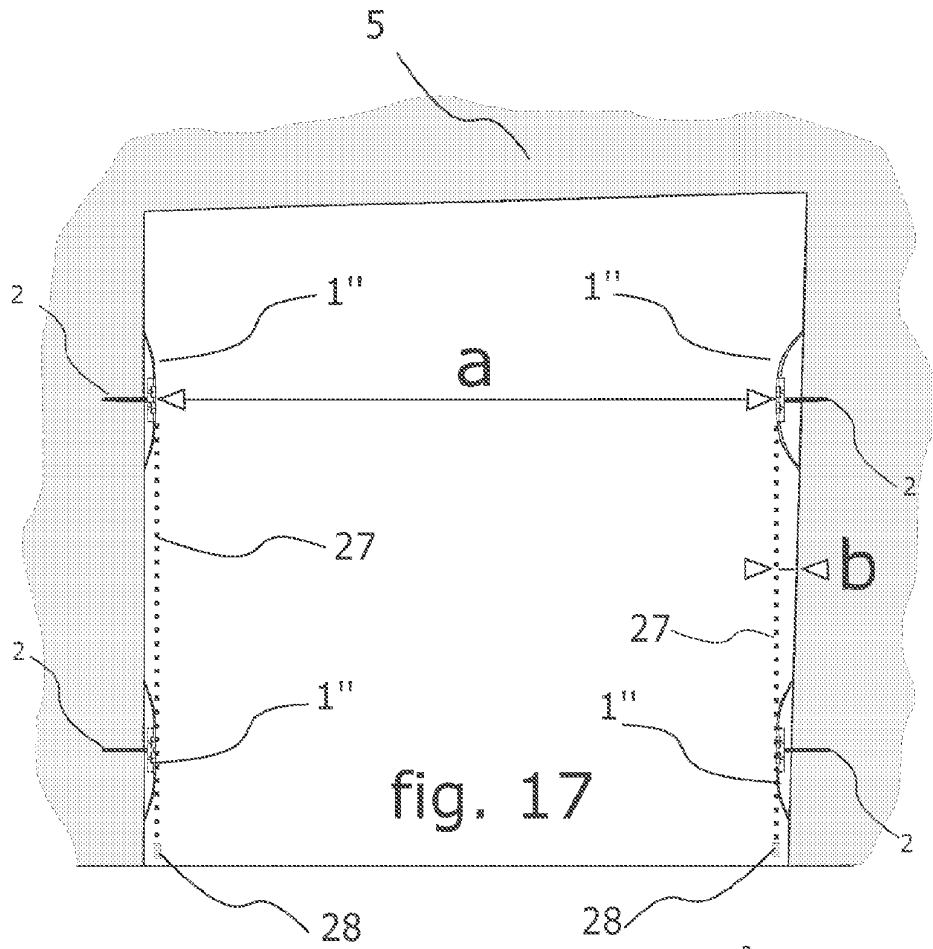


fig. 16



REFERENCES CITED IN THE DESCRIPTION

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