



(11) **EP 2 080 843 A2**

(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
22.07.2009 Bulletin 2009/30

(51) Int Cl.:
E04B 2/74 (2006.01) **E04B 2/82** (2006.01)
A47K 3/34 (2006.01) **E06B 3/46** (2006.01)

(21) Application number: **08104482.8**

(22) Date of filing: **19.06.2008**

(84) Designated Contracting States:
**AT BE BG CH CY CZ DE DK EE ES FI FR GB GR
HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT
RO SE SI SK TR**
Designated Extension States:
AL BA MK RS

(30) Priority: **18.01.2008 IT PD20080019**

(71) Applicant: **Doro, Stefano**
35035 Mestrino (PD) (IT)

(72) Inventor: **Doro, Stefano**
35035 Mestrino (PD) (IT)

(74) Representative: **Vinci, Marcello**
Ufficio Veneto Brevetti
Via Sorio 116
35141 Padova (IT)

(54) **System consisting of profiles and accessories for the installation and assembly of shower cubicles and partition walls**

(57) The invention concerns a new system consisting of profiles and accessories, made of metal and/or plastic, for the installation of partition walls and shower cubicles formed by one or more vertical panels (L) serving as walls, one or more of which are fixed panels (L1) and/or one or more of which are moving panels (L2), sliding and/or hinged, comprising one or more main vertical profiles (PR1) to be fixed to the wall, each one of said profiles

having an open and concave section defining at least one main seat (PR11) and at least one pair of lateral seats (PR12a, PR12b) opposing each other with respect to said main seat (PR11), and wherein each one of said lateral seats (PR12a, PR12b) is suited to house locking and/or supporting devices for at least one of said fixed or moving panels (L1, L2).

EP 2 080 843 A2

Description

[0001] The present patent concerns profiles in metallic or plastic materials suited to be used for the installation of partition walls and shower cubicles, and in particular it concerns a new system consisting of metal or plastic profiles and accessories for the adjustable installation and/or assembly of partition walls and cubicles, for example shower cubicles.

[0002] At present, the shower cubicles and the partition walls used in bathrooms to delimit space are installed only once the bathroom has been completed, that is, after installation of the sanitary fixtures and laying of the floor and wall coverings.

[0003] Various types of shower cubicles and partition walls are known. The shower cubicles of known type comprise a frame consisting of horizontal and vertical profiles made of plastic or metallic material and suited to be fixed to the walls and to the shower tray, forming the support structure of the lateral walls that delimit the space occupied by the shower.

[0004] Shower trays are often positioned in the corners of bathrooms, adjacent to the walls, so that the shower, which is substantially parallelepiped in shape, is laterally delimited by two tiled walls of the bathroom and by two walls of the shower cubicle.

[0005] Said walls of the shower cubicle usually consist of panels, made of glass, plastic or other materials, with various possible finishes, some of these panels being fixed, while one or more of them are movable and serve as sliding or hinged doors.

[0006] The horizontal base profiles forming said frame of the shower cubicle are permanently fixed to the shower tray, along its entire perimeter or at least along the edges that are not adjacent to the walls, or along the edge or part of the edge of the bath.

[0007] In order to do this, it is necessary to apply a sealing agent to the shower tray or to the edge of the bath, in order to guarantee the adhesion of the horizontal perimetric base profiles.

[0008] The vertical profiles that define the vertical corners of the shower cubicle frame are in turn fixed to the horizontal perimetric base profiles and integral with them. The vertical profiles that are adjacent to the tiled walls of the bathroom are permanently constrained also to the walls themselves via fixing screws inserted in connection holes made in the tiled walls themselves.

[0009] One of the main drawbacks posed by the known systems of profiles used for the assembly of shower cubicles lies in that if the user wishes to change the shower cubicle or the partition walls, for example even modifying the cubicle opening/closing system, it is necessary to remove completely not only the panels that make up the walls of the cubicle, but also the profiles that make up the frame, which are specifically made for a given type of shower cubicle.

[0010] In most cases the holes made in the walls and in the shower tray cannot be reused, so that for the in-

stallation of a new shower cubicle it is necessary to make new holes. Furthermore, the previous unused holes cannot be repaired, except by changing all or part of the tile covering and the shower tray, which otherwise would remain irreparably damaged.

[0011] A further drawback posed by the known systems lies in that once the profiles have been fixed to the walls or to the edge of the shower cubicle or of the bath, it is impossible to change their position, for example if the walls are not perfectly flat and level, or if the position of the profiles is not perfectly horizontal or vertical.

[0012] In this case, since the profiles cannot be repositioned correctly, the panels that make up the partition walls and the shower cubicle walls will be positioned imprecisely and the moving doors of the cubicle, be they sliding or hinged doors, will not guarantee the watertight closure of the cubicle itself.

[0013] Another drawback posed by the known shower cubicles is represented by the fact that, in order to guarantee tightness to water and humidity along the joints between profiles and walls and between profiles and shower tray or bath edge, it is necessary to apply a sealing agent that gets dirty over time and, being very difficult to clean, must periodically be removed and reapplied.

[0014] In order to overcome all the drawbacks mentioned above, a new system consisting of metal or plastic profiles for the adjustable installation and assembly of partition walls or cubicles, for example shower cubicles, has been designed and carried out.

[0015] The main object of the present invention is to allow shower cubicles and partition walls in general to be installed correctly, rapidly and precisely through the adjustment of the position of the panels within the profiles fixed to the wall.

[0016] Another important object of the present invention lies in that installation is possible before completion of the bathroom and in particular before laying of the coverings, since the horizontal and vertical profiles are recessed into the wall, more precisely are fitted into grooves provided for this purpose.

[0017] Said recessed profiles therefore are not visible and do not affect the appearance of the tiled walls, even when the shower cubicle hasn't been installed yet.

[0018] After being fitted in said grooves, said profiles must be fixed with cement mortar and after drying it is possible to plaster the wall and lay the tiles or the floor covering in general.

[0019] After installation of the recessed profiles, it is possible to assemble the panels that make up the cubicle walls, whose position can be adjusted by means of suitable adjusting inserts that can compensate for any imprecision in the laying of the vertical or horizontal recessed profiles.

[0020] Another important advantage offered by the present invention is represented by the fact that it reduces the range of necessary recessed profiles, thus creating components that are as versatile as possible, which means that they can be adapted to as many configura-

tions as possible, independently of the type of shower cubicle that will be installed successively.

[0021] The recessed profiles, in particular, are shaped so that they can house further rabbet profiles for the moving doors, be they sliding or hinged doors.

[0022] Therefore, it is possible to change the structure of the shower cubicle with no need to change the recessed profiles, which can be left in their position and then reused, so that it isn't necessary to make holes in the finished and tiled walls.

[0023] Another important object of the invention is to eliminate the need to make holes in the finished and tiled walls or in the floor for the assembly of the shower cubicle.

[0024] A further important object of the invention is to guarantee tightness to water and humidity, thanks to the special profiles provided for this purpose.

[0025] Another important object of the invention is to eliminate the need to use sealing agents, thanks to the use of said special tight profiles.

[0026] A further important advantage offered by the present invention lies in that it ensures easy installation, maintenance and cleaning.

[0027] Another advantage offered by the present invention lies in that it allows the installation of recessed lighting devices, for example LED bars fitted in the profiles, which do not occupy external space and do not require further grooves to be provided.

[0028] A further advantage of the present invention lies in that it makes it possible to obtain diffused light effects into the shower cubicle and coloured lighting of the glass by means of said recessed lighting devices.

[0029] These and other direct and complementary objects have been achieved through the implementation of the new system consisting of metal or plastic profiles for the adjustable installation and assembly of partition walls or cubicles, for example shower cubicles.

[0030] The new system of profiles comprises:

- one or more main vertical profiles to be installed on the wall and defining the vertical corners of the shower and suited to be recessed into the wall before the final covering of the wall is laid;
- one or more perimetric horizontal base profiles defining the base perimeter of the shower, wherein said horizontal profiles can in turn be recessed into the wall base, before the final covering of the wall is laid, and/or fixed directly to the floor and/or to the edge of the shower tray or of the bath.

[0031] Each one of said main vertical profiles features an open and concave section defining at least one main seat and at least one pair of lateral and opposing seats, substantially aligned with each other, each one of said lateral seats being suited to house devices for locking and/or supporting at least one fixed or moving vertical panel that serves as wall of the cubicle or partition wall in general.

[0032] In particular, said system comprises:

- one or more pairs of opposing inserts suited to clamp the glass panels and to be housed in said lateral seats of the main vertical profile, wherein said inserts rest on the lateral edges of said panel inserted between them and keep it in this position, and wherein said inserts allow slight movements intended to adjust the position of said panel both on the horizontal plane, at right angles and parallel to the walls, and on the vertical plane, parallel to the wall, in order to correct any mistakes occurred during the laying of the main vertical profile;
- one or more closing and adjusting vertical profiles or pairs of closing and adjusting vertical profiles intended to ensure tightness, suited to be housed and fixed into seats obtained in said clamping inserts and to maintain the watertight contact with the panel clamped by said inserts, so that even in case of translation of the panel, particularly in a direction parallel to the wall on the horizontal plane, tightness to water and humidity is guaranteed.

[0033] As an alternative to said clamping inserts and to said closing and adjusting vertical profiles intended to ensure tightness, it is possible to use one or more vertical closing and rabbet profiles or inserts for doors, suited to be housed in said main seat of the main vertical profiles, and wherein said vertical rabbet profiles comprise a substantially flat part whose lower surface is provided with projections for fitting in said main seat, while its upper surface is provided with an orthogonal partition arranged longitudinally with respect to the development of the profile and suited to be used as rabbet for the moving panel, for example that of a hinged door.

[0034] Before the assembly of the shower cubicle, as an alternative to said vertical closing and rabbet profiles, it is possible to use one or more vertical profiles that completely close said seat of the main vertical profile, wherein said vertical profiles for total closing comprise a substantially flat part whose lower surface is provided with projections for fitting in said main vertical profile, while its upper surface is substantially flat and suited to be positioned flush with the surface of the wall and parallel to it.

[0035] The new system also comprises one or more closing elements or plugs suited to be constrained to the base of said main vertical profiles and having at least one lateral opening for discharging water that may successively be conveyed into a collection channel or receptacle, for example obtained in said perimetric horizontal base profiles.

[0036] The new system of profiles also comprises one or more further horizontal profiles suited to be coupled to said perimetric horizontal base profiles in order to prevent the infiltration of water and humidity into the wall.

[0037] The new system of profiles also comprises one or more further horizontal guide profiles suited to be housed in said seat of the perimetric horizontal base profiles and suited to guide the sliding doors of the shower cubicle.

[0038] Furthermore, according to the invention said system also comprises one or more recessed lighting devices, suited to be inserted in said vertical and/or horizontal recessed profiles.

[0039] For example, said main vertical profiles comprise at least one seat suitable for the insertion of said lighting devices, for example LED bars, and suitable for the laying of the power supply cables, so that said lighting devices are completely recessed into the profile, and there is no need to make further grooves for special raceways.

[0040] As described and claimed here below, according to the invention said main seat of said main vertical profiles is specially shaped for the insertion of said LED bars in addition to the edge of the shower cubicle panel or of the partition wall.

[0041] The characteristics of the new system will be highlighted in greater detail in the following description, with reference to the drawings attached as nonlimiting examples.

Figures 1a-1h show the cross sections of the vertical or horizontal profiles that make up the new system, and respectively:

- Figure 1a shows a cross section of a main vertical profile (PR1) recessed into the wall;
- Figure 1b shows a cross section of a closing and adjusting vertical profile (PR2) intended to ensure water tightness;
- Figure 1c shows a cross section of a vertical closing and rabbet profile (PR3), particularly suited to be used for hinged doors;
- Figure 1d shows a cross section of a vertical profile (PR4) that closes completely the main seat (PR11) of the main vertical profile (PR1) recessed into the wall;
- Figures 1e and 1f show the cross sections of two possible embodiments of the perimetric horizontal base profile (PR5) and (PR6) that can be recessed into the base of the wall, along the edges of the shower tray or of the bath that are not adjacent to the walls, and/or that are not recessed, particularly on the edges of the shower tray that are not adjacent to the bathroom walls;
- Figure 1g shows a cross section of an additional perimetric horizontal profile (PR7) suited to prevent water and humidity from penetrating into the wall;
- Figure 1h shows a cross section of an additional horizontal guide profile (PR8).

Figures 2a-2h show three-dimensional views of portions of the profiles (PR1-PR7) respectively shown in cross section in Figures 1a-1h listed above.

Figure 3 shows a diagram of the cross section of the system for fixing a vertical panel (L) in a fixed position orthogonal to a vertical wall, wherein the position of

said panel (L) can be adjusted by slight movements both on the horizontal plane, at right angles (Y) and parallel (X) to the wall, and on the vertical plane, said movements being possible thanks to the provision of special inserts (F2) suited to clamp the glass panel.

In particular, it is possible to observe the cross section of the main vertical profile (PR1) housed in a vertical groove (W1) made in the wall (M) and fixed with cement mortar (C) before application of the plaster (I) and laying of the covering (R), for example a tile covering.

Inside the lateral seats (PR12a, PR12b) of said main vertical profile (PR1) there are one or more pairs of said clamping inserts (F2), specularly opposing each other, whose position can be adjusted on the horizontal plane, in a direction (X) parallel to the wall, by screwing into threaded elements (F1) that in turn are fixed in said lateral seats (PR12a, PR12b) themselves.

Figure 4 shows a section plane of the base of the wall in which a perimetric horizontal base profile (PR5) is recessed, coupled with an additional perimetric horizontal profile (PR7), both of them being housed into a horizontal groove (W2) made in the base of the wall (M), and wherein said perimetric horizontal profiles (PR5, PR7) can then be fixed through the application of cement mortar (C), before application of plaster (I) and of the covering (R).

Figure 5 shows a cross section of the perimetric horizontal base profile (PR5) installed on the edge (V1), not adjacent to the wall, of a collection receptacle (V) and suited to house the lower edge (Lb1) of at least one fixed vertical panel (L1). Said perimetric horizontal base profile (PR5) is coupled to an additional horizontal guide profile (PR8) in the shape of a U or a Y, suited to house the lower edge (Lb1) of a second moving panel (L2) that slides parallel to said first panel (L1) and serves as the sliding door of the shower cubicle.

Figure 5a shows the collection receptacle (V) that serves as a shower tray, on the edge (V1) of which it is possible to install said perimetric base profile (PR5).

Figure 6 shows a three-dimensional view of a closing element or plug (T) of the base of said main vertical recessed profile (PR1).

Figures 7a and 7b show, respectively in a top view and in a three-dimensional view, the main vertical recessed profile (PR1) that houses the arm (C1) of the hinge pin (C2) of a panel (L2) that serves as a hinged door, and a vertical closing and rabbet profile (PR3).

Figures 8 and 8a respectively show a three-dimensional view of an example of assembled shower cubicle and a detail of the main vertical recessed profile (PR1).

Figure 8b shows in detail the spanner (H) used to

adjust the clamping inserts (F2) housed in the lateral seats (PR12a, PR12b) of the main vertical profile (PR1).

Figure 9 shows a horizontal section of a main vertical profile (PR1) recessed into the wall, with clamping inserts (F2) between which a fixed panel (L1) is permanently constrained at right angles to the wall, and with closing and adjusting vertical profiles (PR2) tightly applied to the panel (L1).

Figure 10 shows a horizontal section of a main vertical profile (PR1) recessed into the wall, in which a LED bar (B) is fitted in vertical position.

[0042] The new system of profiles is suited to be used for the installation and assembly of shower cubicles and partition walls in general.

[0043] In the example shown in Figure 8, the shower cubicle is installed in one corner of the bathroom, so that the space occupied by the shower is delimited at the bottom by the shower tray (D) and laterally by the two angular walls of the bathroom and by two walls of the shower cubicle, wherein said walls of the shower cubicle comprise one or more vertical panels (L1, L2).

[0044] In particular, at least one of said walls of the shower cubicle comprises one or more fixed panels (L1) and at least one moving panel (L2) for opening/closing the shower cubicle that, with particular reference to Figure 8, slides parallel to a fixed panel (L1).

[0045] The new system of profiles comprises one or more main vertical profiles (PR1) that can be applied to the wall and define the corners of the shower cubicle, said profiles being suited to be recessed into the wall (M) before the laying of the final covering (R) of the bathroom wall, as shown in Figure 3.

[0046] Each one of said main vertical profiles (PR1) has an open and concave section defining at least one main seat (PR11) for the insertion of the lateral edge (Lb2) of at least one panel (L1) and/or of further profiles (PR2, PR3, PR4), and at least one pair of lateral opposing seats (PR12a, PR12b), substantially aligned on an axis (Z2) orthogonal to the axis (Z1) of said main seat (PR11), each one of said lateral seats (PR12a, PR12b) being suited to house devices (F1, F2) for locking and/or supporting at least one fixed or moving panel (L1, L2).

[0047] Said main vertical recessed profile (PR1) can be used to constrain the panels forming the cubicle walls, independently of whether they are fixed panels (L1), for example arranged at right angles to the wall of the bathroom, as shown in Figures 3, 8 and 9, or moving panels (L2), as in the example shown in Figure 7b.

[0048] Said main vertical profile (PR1) is suited to be housed in a vertical groove (W1) made in the wall (M) and fixed therein by means of cement mortar (C) before application of the plaster (I) and laying of the covering (R), for example a tile covering.

[0049] With particular reference to Figure 3, said main vertical profile (PR1) recessed into the wall (M) is suited to removably house, within said lateral seats (PR12), one

or more pairs of clamping inserts (F2), specularly opposing each other, suited to rest laterally against the lateral edges (Lb2) of a panel (L1) inserted between them at right angles to the bathroom wall.

[0050] Said pairs of clamping inserts (F2), distributed along the main vertical profile (PR1), allow slight movements intended to adjust the position of said panel (L1) both on the horizontal plane, in a direction (X) parallel to the wall and in a direction (Y) orthogonal to the wall, and on the vertical plane.

[0051] Each one of said clamping inserts (F2) can in fact be translated in a direction (X) parallel to the wall, to the right or to the left, independently of each other or together, thus causing the corresponding movement of the panel (L1).

[0052] In particular, each one of said clamping inserts (F2) comprises a substantially flat head (F21) that adheres to the surface of the lateral edge (Lb2) of the panel (L1) and a threaded shank (F22) suited to be screwed into threaded elements (F1) that in turn are constrained in said lateral seats (PR12a, PR12b) of the main vertical profile (PR1).

[0053] According to the invention, the section of said heads (F21) of the clamping inserts (F2) is larger than the opening of said lateral seats (PR12a, PR12b), in such a way as to ensure that they keep projecting from the corresponding lateral seat (PR12a, PR12b) and to allow them to be used to screw/unscrew the inserts (F2).

[0054] In order to adjust said clamping inserts (F2) fitted in said lateral seats (PR12a, PR12b), it is possible to use a spanner (H) or a tool with jaws (H1, H2) suited to seize the head (F21) of said clamping inserts (F2) in order to screw/unscrew said clamping inserts (F2) in/from said threaded elements (F1).

[0055] Said jaws (H1, H2) have a maximum thickness that does not exceed the thickness of said head (F21) of said clamping inserts (F2), in such a way as to be able to be inserted into said main seat (PR11) of the main vertical profile (PR1), in the air spaces defined at the sides of the inserted panel (L1). If the main vertical profile (PR1) has not been installed in a position perfectly orthogonal to the floor, it is therefore possible to adjust the position of the panel (L1) by adjusting the position of said clamping inserts (F2) to incline the panel (L1) to the right and to the left until it is perfectly vertical.

[0056] Inside said main vertical profile (PR1) it is also possible to house one or more pairs of closing and adjusting vertical profiles (PR2) intended to ensure water tightness, arranged symmetrically at both sides of the panel (L1) held by said clamping inserts (F2).

[0057] Each one of said closing and adjusting vertical profiles (PR2) is suited to be housed and constrained in seats (F23) obtained in the heads (F21) of said clamping inserts (F2) and to maintain a constant tight contact with the panel (L1).

[0058] Said closing and adjusting vertical profiles (PR2) have a substantially L-shaped section, with one or more partitions or projections (PR22) suited to be insert-

ed in said seats (F23) of the clamping insert (F2), parallel to the plane where the panel (L1) lies and having a preferably knurled surface (PR23) to prevent it from accidentally sliding out, and a substantially flat part (PR21) for closing the gaps at the sides of said panel (L1), thus preventing the infiltration of water and humidity inside said main seat (PR11) of the main vertical profile (PR1).

[0059] In order to guarantee maximum tightness to water and humidity, it is also possible to add one or more sealing gaskets (G), integral with said vertical adjusting profiles (PR2), maintained in contact with the panel (L1).

[0060] In this way, also following the translation of the panel (L1), in particular in a direction (X) parallel to the wall on the horizontal plane, tightness to water and humidity is guaranteed, since said closing and adjusting profiles (PR2) translate together with said clamping inserts (F2) and therefore with the panel (L1).

[0061] As an alternative to said clamping inserts (F2) and to said closing and adjusting vertical profiles (PR2) intended to ensure tightness, it is possible to use one or more vertical rabbet profiles or inserts (PR3) for doors, suited to be removably constrained to said main vertical profiles (PR1), as shown in Figures 1c, 7a and 7b.

[0062] Said vertical rabbet profiles (PR3) comprise a substantially flat part (PR31) whose lower surface (PR312) is provided with partitions or projections (PR32), with smooth or knurled surface, for insertion in said main seat (PR11) of said main vertical profile (PR1), while its upper surface (PR311) is provided with an orthogonal partition (PR33) arranged longitudinally and suited to serve as rabbet for the lateral edge of the moving sliding or hinged panel (L2).

[0063] Before the assembly of the shower cubicle it is possible to use vertical profiles (PR4) that completely close said seat (PR11) of the main vertical recessed profile (PR1) as an alternative to the use of said vertical closing and rabbet profiles (PR3).

[0064] Said vertical closing profiles (PR4), shown in Figure 1d, comprise a substantially flat part (PR41) whose lower surface (PR412) is provided with partitions or projections (PR42), with smooth or knurled surface, for insertion in said seat (PR11) of said main vertical profile (PR1), while its upper surface (PR411) is substantially flat and flush with the surface of the wall.

[0065] The new system also comprises one or more closing elements or plugs (T) for the base of each one of said main vertical profiles (PR1), provided with a lateral opening (T1) for draining the water that if necessary can be conveyed into a collection channel or receptacle.

[0066] Said main vertical profiles (PR1), once they have been applied to the wall, are thus a functional alternative both for the installation of fixed panels (L1) and for the installation of moving panels (L2), be they hinged or sliding panels.

[0067] With particular reference to Figures 7a and 7b, to install for example a moving hinged panel (L2) it is sufficient to constrain, within said lateral seats (PR12a, PR12b) of said main vertical profile (PR1) recessed in

the wall (M), an arm (C1) that partially protrudes from said main seat (PR11) for connection, via a rotatable pin (C2), to the moving panel (L2) that is thus hinged.

[0068] Said clamping inserts (F2), said vertical closing profiles (PR2, PR3, PR4) and said supporting arm (C1) for the moving panel (L2) can be inserted in said main vertical profile (PR1) at variable heights, in such a way as to permit the adjustment of the height of the fixed (L1) or moving (L2) panel.

[0069] The new system may also comprise one or more lighting devices, particularly but not exclusively LED bars (B), inserted within said vertical and/or horizontal profiles, for example in said main vertical profile (PR1), as shown in Figure 10.

[0070] In particular, according to the invention, said main vertical profile (PR1) comprises a further seat (PR13) aligned with said main seat (PR11), preferably along its main axis (Z1), and having dimensions and depth suitable for the insertion of said LED bar (B) in a backward position substantially aligned with the edge (Lb2) of the panel (L1).

[0071] In this way, diffused light effects are created, with the glass panel lit and refracting the light emitted by the LED bar (B).

[0072] According to the invention, the LED bar (B) is inserted, for example, from above in said seat (PR123) of the main vertical profile (PR1) before it is installed, in such a way as to position also the low voltage power cables, for example a power supply cable plus three cables for changing the LEDs into RGB.

[0073] According to the invention, said LED bar can be connected to at least one microprocessor with integrated transformer, in order to be able to vary the colour of the emitted light, for example white or coloured.

[0074] Furthermore, said LED bar (B) may in turn be constrained in the corresponding seat (PR13) by means of suitable elements or profiles (B1) that are also suited to further ensure water tightness.

[0075] The new system comprises also one or more perimetric horizontal base profiles (PR5, PR6) suited to be recessed in the base of the wall (M), along the edges of the shower tray or of the bath that are adjacent to the wall, and/or one or more perimetric horizontal base profiles (PR5, PR6) suited to be fixed directly along the edges of the shower tray or along the edges of the bath that are not adjacent to the walls of the bathroom.

[0076] With reference to Figures 1e, 1f and 4, said perimetric horizontal recessed base profiles (PR5, PR6) have a substantially T-shaped section (PR5) or L-shaped section (PR6) and comprise a first flat part (PR51, PR61) suited to be positioned vertically into the horizontal groove (W2) made in the base of the wall (M), and a second flat part (PR52, PR62), orthogonal to the first one (PR51, PR61) and suited to be positioned horizontally in such a way as to define a drainage channel (T2).

[0077] In order to prevent the infiltration of humidity into the wall, it is possible to use at least one further perimetric horizontal profile (PR7) positioned above and par-

allel to said perimetric horizontal recessed base profile (PR5, PR6), whose section is substantially in the shape of an upturned L, with a first flat part (PR71) suited to be positioned vertically and a second flat part (PR72) suited to be positioned horizontally in order to delimit the lower edge of the covering (R), consisting for example of tiles, of the said walls of the bathroom. Said additional perimetric horizontal profile (PR7) also comprises one or more partitions (PR73) for anchorage to the wall (M).

[0078] Said perimetric horizontal base profiles (PR5, PR6) can also be used to delimit the shower cubicle along the edges of the shower tray or of the bath that are not adjacent to the wall (M).

[0079] According to the invention, if there is no shower tray or bath, it is possible to install a collection receptacle (V), for example made of metal sheet or resins, such as ABS, connected to a draining outlet, said T-shaped external perimetric horizontal base profile (PR5) being integrally coupled to the edge (V1) of said collection receptacle (V).

[0080] With particular reference to Figure 5, said T-shaped external perimetric horizontal base profile (PR5) comprises at least one partition (PR54) for coupling to the edge (V1) of the collection receptacle (V), to which it is constrained via one or more fastening means (V2) inserted in suitable seats (PR55) obtained in said T-shaped perimetric horizontal base profile (PR5).

[0081] Said T-shaped perimetric horizontal base profile (PR5) comprises at least one horizontal partition (PR56) suited to support the lower edge (L11) of at least one fixed vertical panel (L1).

[0082] Said external perimetric horizontal profile (PR5) can also be coupled to an additional horizontal guide profile (PR8) in the shape of a U or a Y and defining a guide (PR81) suitable for housing the lower edge (Lb1) of a second moving panel (L2), for example sliding parallel to said first panel (L1).

[0083] In order to install the main vertical recessed profiles (PR1) it is sufficient, as diagrammatically shown in Figures 3 and 9, to make a vertical groove (W1) in the wall (M), fit said main vertical recessed profiles (PR1) therein until reaching the depth indicated by one or more anchorage tabs (A1) of the main vertical profile (PR1), then fix the profiles (PR1) in position, for example by applying cement mortar (C).

[0084] After the hardening stage, plaster (I) is applied to the wall (M), up to the level indicated by a shoulder (A2) of the profile (PR1), and then the final covering (R), for example a tile covering, is laid.

[0085] The edges of said shoulder (A2) are folded (A21) outwards with respect to the concave section of the main vertical profile (PR1), in such a way as to be projecting and horizontal when the profile is recessed, in order to delimit the edges of the applied covering (R).

[0086] In this way the main vertical profile (PR1) is installed permanently, in a position recessed into the wall, and can be used, coupled with one or more of the vertical profiles or inserts described above, for the removable

installation of fixed (L1) or moving (L2) panels orthogonal to the wall, with no need to make further holes and to apply sealing material.

[0087] Analogously, to install the perimetric horizontal recessed base profiles (PR5, PR6) and the additional perimetric horizontal profiles (PR7) it is sufficient, as diagrammatically shown in Figure 4, to make a horizontal groove (W2) in the wall (M), fit said perimetric horizontal recessed base profiles (PR5, PR6, PR7) therein and then fix them, for example by applying cement mortar (C). After the hardening stage, plaster (I) is applied to the wall (M) and then the final covering (R), for example a tile covering, is laid.

[0088] Therefore, with reference to the above description and the enclosed drawings, the following claims are expressed.

Claims

1. System consisting of profiles and accessories, made of metal and/or plastic, for the installation of partition walls and/or shower cubicles comprising one or more vertical panels (L) serving as walls, one or more of which are fixed panels (L1) and/or one or more of which are moving panels (L2), sliding and/or hinged, **characterized in that** it comprises one or more main vertical profiles (PR1) that can be fixed to the wall, each one of said profiles having an open and concave section defining at least one main seat (PR11) and at least one pair of lateral seats (PR12a, PR12b) opposing each other with respect to said main seat (PR11), and wherein each one of said lateral seats (PR12a, PR12b) is suited to house devices (F1, F2, C1) suited to lock and/or support at least one of said fixed or moving panels (L1, L2).
2. System consisting of profiles and accessories according to claim 1, **characterized in that** said main vertical profiles (PR1) are suited to be recessed into the wall before the final covering (R) of the wall itself is laid.
3. System consisting of profiles and accessories according to claims 1, 2, **characterized in that** said lateral seats (PR12a, PR12b) are substantially aligned on an axis (Z2) orthogonal to the axis (Z1) of said main seat (PR11).
4. System consisting of profiles and accessories according to claims 1, 2, 3, **characterized in that** it comprises one or more pairs of opposing inserts (F2) suited to clamp the glass panels, and wherein said pairs of clamping inserts can be distributed at varying heights along said main vertical profile (PR1), each one of said clamping inserts (F2) being housed within the corresponding lateral seat (PR12a, PR12b) of said main vertical profile (PR1), and wherein said

opposing clamping inserts (F2) are suited to rest against the portion of the panel/s (L1) inserted in said main seat (PR11) to maintain it in its position.

5. System consisting of profiles and accessories according to claims 1, 2, 3, 4, **characterized in that** said opposing clamping inserts (F2), fitted in said lateral seats (PR12a, PR12b), translate either independently of each other or together, parallel to the axis (Z2) of said lateral seats (PR12a, PR12b), in order to obtain the corresponding movement and consequent alignment of the panel/s (L1) inserted therethrough, and wherein the relative distance between said opposing clamping inserts (F2) inserted in said lateral seats (PR12a, PR12b) determines the useful thickness for the insertion and locking of the vertical edge (Lb2) of the panel/s (L1) to be inserted.
6. System consisting of profiles and accessories according to claims 1, 2, 3, 4, 5, **characterized in that** each one of said clamping inserts (F2) comprises a substantially flat head (F21), suited to adhere to the lateral surface of the panel (L1), inserted between said clamping inserts (F2), and a threaded shank (F22) suited to be screwed into threaded elements (F1) that in turn are housed and constrained in said lateral seats (PR12a, PR12b) of said main vertical profile (PR1).
7. System consisting of profiles and accessories according to claims 1, 2, 3, 4, 5, 6, **characterized in that** it comprises at least one spanner (H) or tool with jaws (H1, H2) suited to seize said head (F21) of said clamping inserts (F2) in order to screw/un-screw said clamping inserts (F2) into/from said threaded elements (F1), and wherein the thickness of said jaws (H1, H2) does not exceed the thickness of said heads (F21) of said clamping inserts (F2), so that they can be inserted in the main seat (PR11) of the main vertical profile (PR1) through the air spaces at the sides of said inserted panel (L1).
8. System consisting of profiles and accessories according to claims 1, 2, 3, 4, 5, 6, 7, **characterized in that** it comprises one or more closing and/or rabbit vertical profiles (PR2, PR3, PR4) of said main seat (PR11) of said main vertical profile (PR1), wherein each one of said closing vertical profiles (PR2, PR3, PR4) is suited to be directly or indirectly constrained, removably or permanently, to said main vertical profile (PR1) and/or to said opposing clamping inserts (F2) inserted in said lateral seats (PR12a, PR12b) of said main vertical profile (PR1), and comprises at least one substantially flat part (PR21, PR31, PR41) suited to be positioned orthogonally to said axis (Z1) of said main seat (PR11), in order to seal all or part of said main seat (PR11) itself, with or without further sealing gaskets (G).

9. System consisting of profiles and accessories according to claims 1, 2, 3, 4, 5, 6, 7, 8, **characterized in that** the lower surface (PR412, PR312) of said vertical closing (PR4) and/or rabbit profiles (PR3) is provided with partitions or projections (PR32), with smooth or knurled surface, for the insertion of said main vertical profile (PR1) in said main seat (PR11), while its upper surface is substantially smooth (PR411) or provided (PR311) with at least one orthogonal partition (PR33) arranged longitudinally and suited to serve as rabbit for the moving panel (L2), be it sliding or hinged.
10. System consisting of profiles and accessories according to the preceding claims, **characterized in that** it comprises at least one closing element or plug (T) of the base of said main vertical profile (PR1), said plug (T) comprising at least one lateral opening (T1) for the drainage of water.
11. System of profiles and accessories according to the preceding claims, **characterized in that** it comprises at least one element or arm (C1) for supporting the hinge (C2) of at least one sliding or hinged panel (L2), said arm (C1) being suited to be housed and constrained within said lateral seats (PR12a, PR12b) of said main vertical profile (PR1) in such a way as to be partially projecting from said main seat (PR11) and to be able to be connected to said moving panel (L2) through said hinge (C2).
12. System consisting of profiles and accessories according to the preceding claims, **characterized in that** it comprises one or more perimetric horizontal base profiles (PR5, PR6) suited to define part of the base perimeter of the shower cubicle and to be recessed into the base of the wall (M) before the final covering (R) of the wall is laid, or able to be constrained to the floor and/or along the edges of the shower tray (D) or of the bath or of a collection receptacle (V), and wherein said perimetric horizontal base profiles (PR5, PR6) substantially have a T-shaped (PR5) or L-shaped section (PR6) and comprise a first flat part (PR51, PR61) suited to be positioned vertically into a horizontal groove (W2) made in the base of the wall (M), and a second flat part (PR52, PR62) orthogonal to the first one (PR51, PR61) and suited to be positioned horizontally, which defines a channel for the outflow of water and/or serves as a support for one or more of said fixed (L1) or moving panels (L2).
13. System consisting of profiles and accessories according to claim 12, **characterized in that** it comprises at least one additional perimetric horizontal profile (PR7) suited to be positioned above and parallel to said perimetric horizontal recessed base profile (PR5, PR6), and whose section has substantially

the shape of an upturned L, with a first flat part (PR71) suited to be positioned vertically and a second flat part (PR72) suited to be positioned horizontally in order to delimit the lower edge of the covering (R) of the lateral walls of the bathroom, thus preventing water infiltrations between the profile (PR7) and the wall (M).

5

14. System consisting of profiles and accessories according to claims 12, 13, **characterized in that** it comprises at least one additional horizontal guide profile (PR8), substantially in the shape of a U or a Y, suited to be constrained parallel to said perimetric horizontal profile (PR5, PR6, PR7) in order to define a guide suited to house the lower edge (L21) of a panel (L2) and to ensure that said panel (L2) slides parallel to the profile (PR8) itself.

10

15

15. System consisting of profiles and accessories according to the preceding claims, **characterized in that** it comprises one or more lighting devices, such as LED bars (B), recessed into said vertical (PR1) or horizontal profiles in a position substantially aligned with the edges of said panels (L1, L2).

20

25

30

35

40

45

50

55

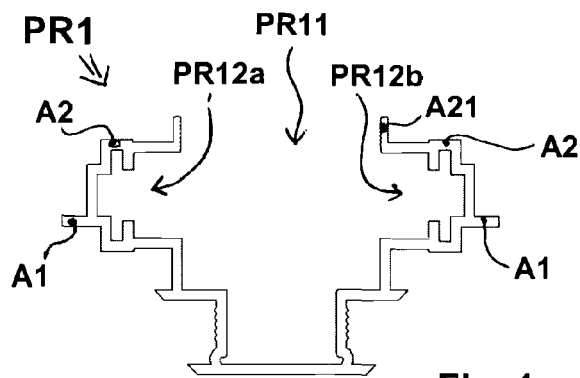


Fig. 1a

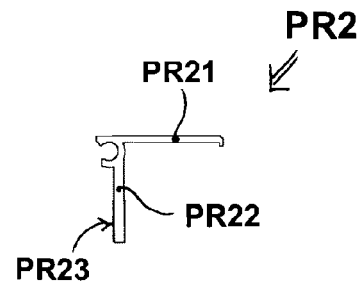


Fig. 1b

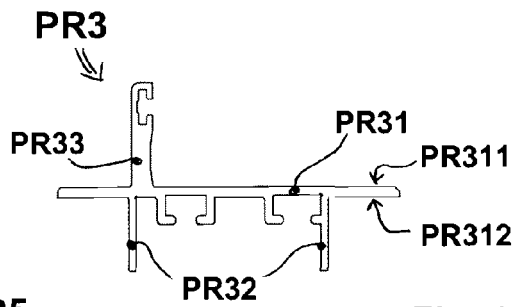


Fig. 1c

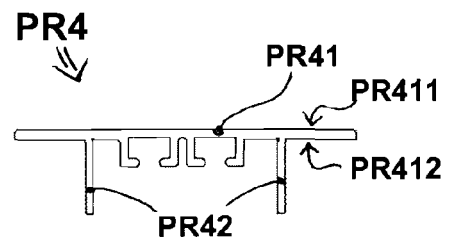


Fig. 1d

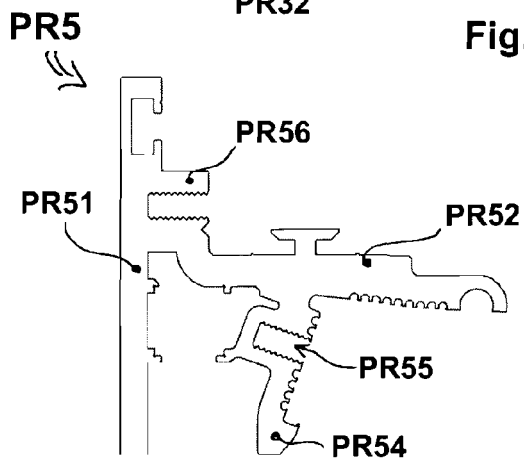


Fig. 1e

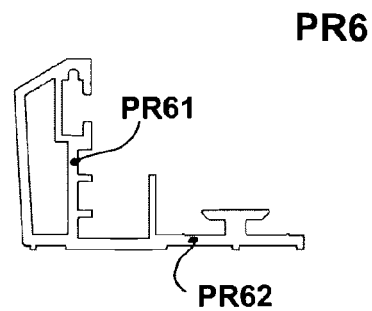


Fig. 1f

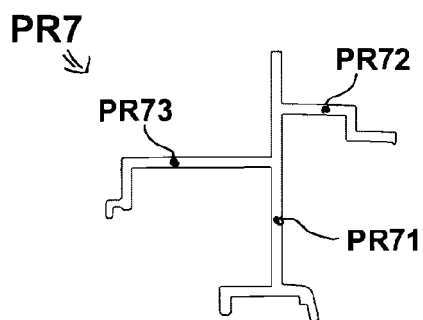


Fig. 1g

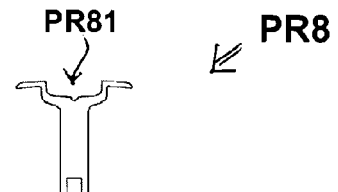
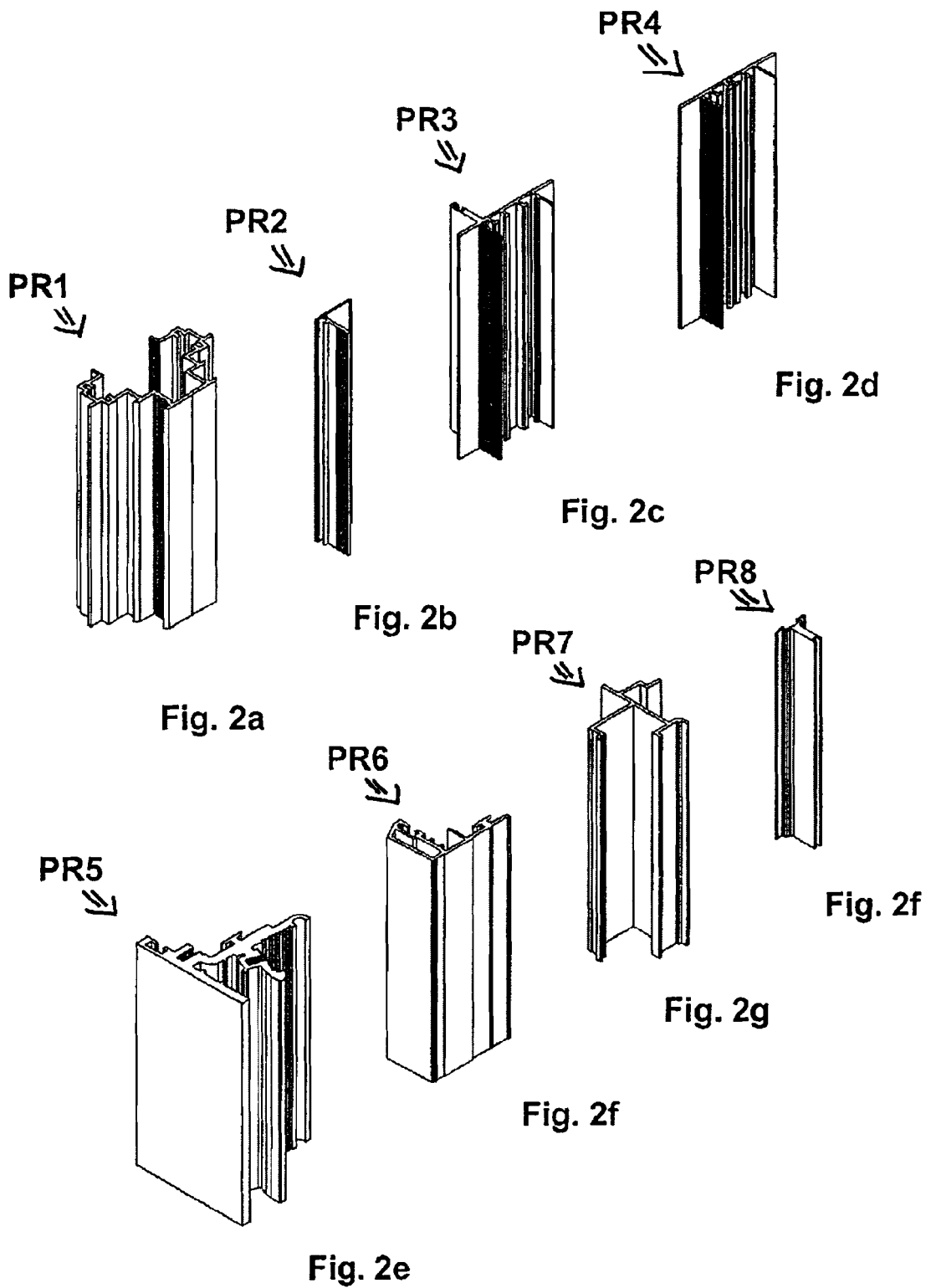
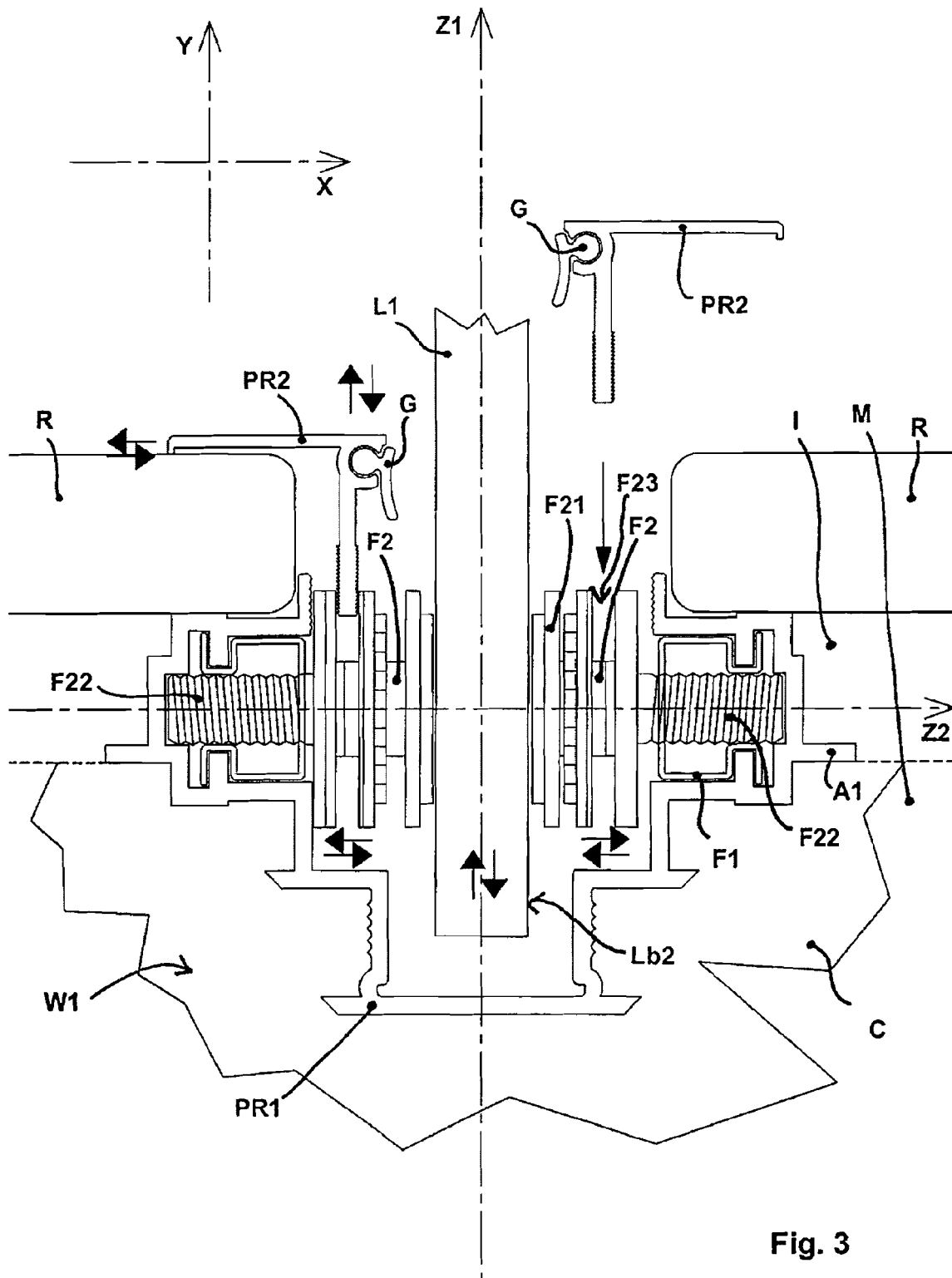


Fig. 1h





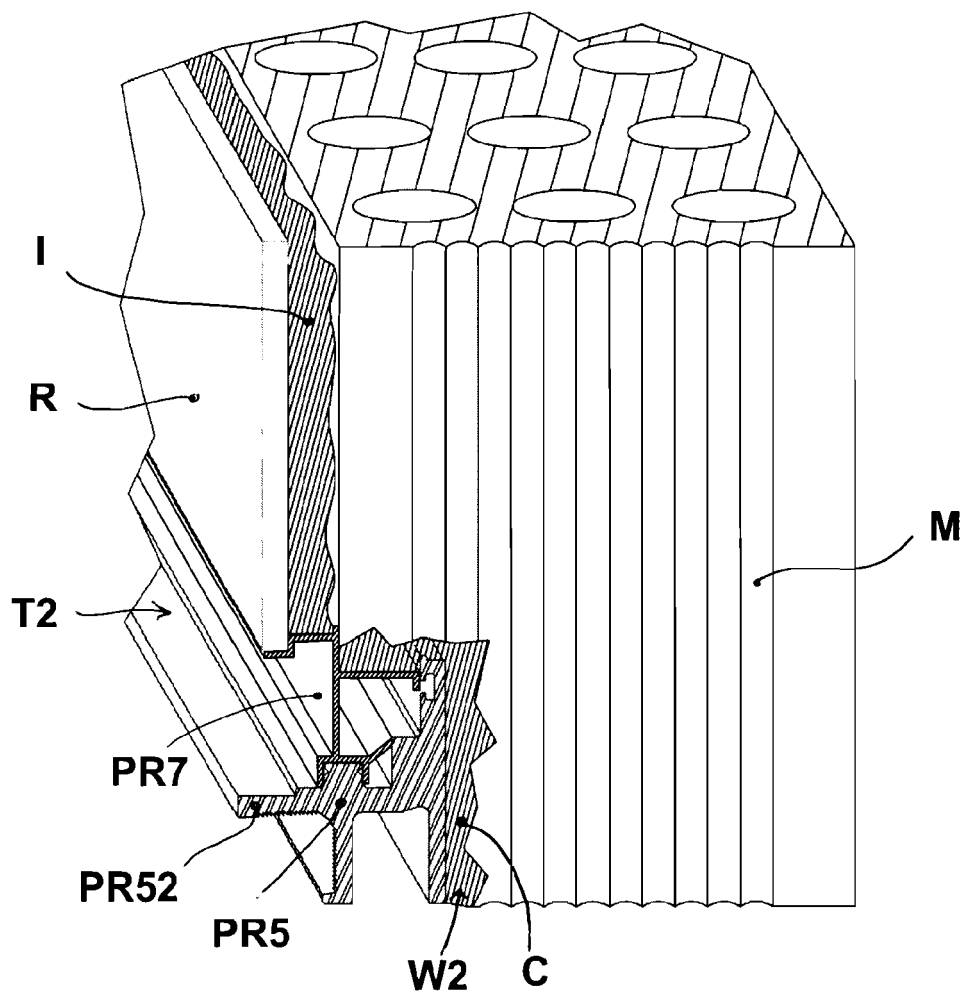


Fig. 4

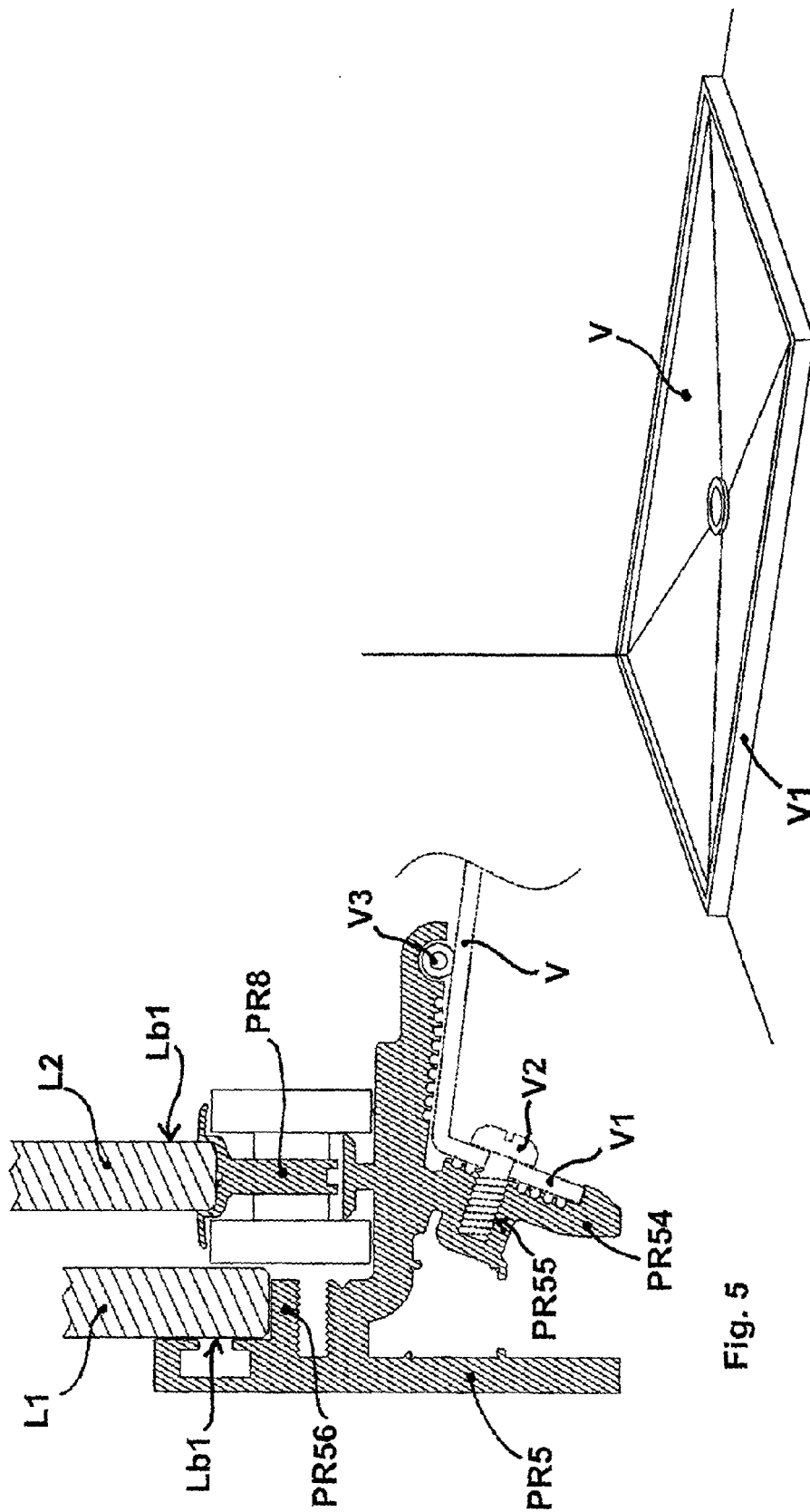


Fig. 5

Fig. 5a

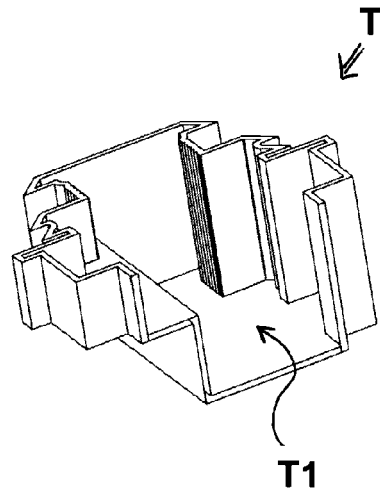


Fig. 6

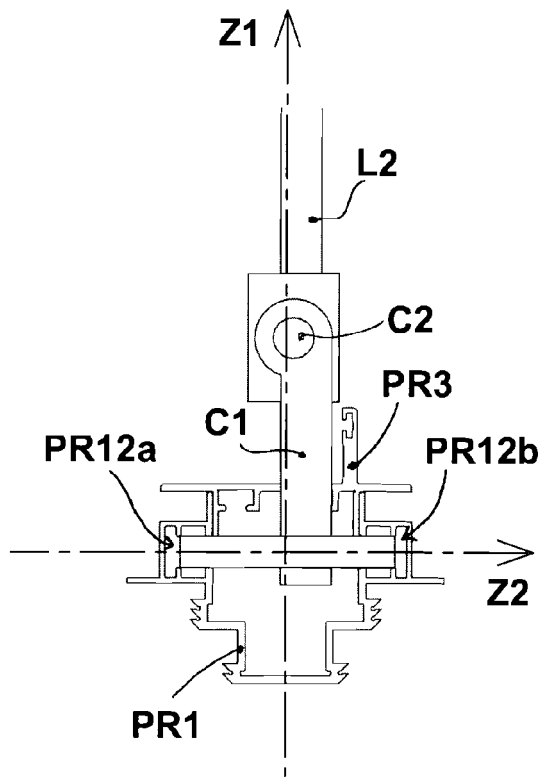


Fig. 7a

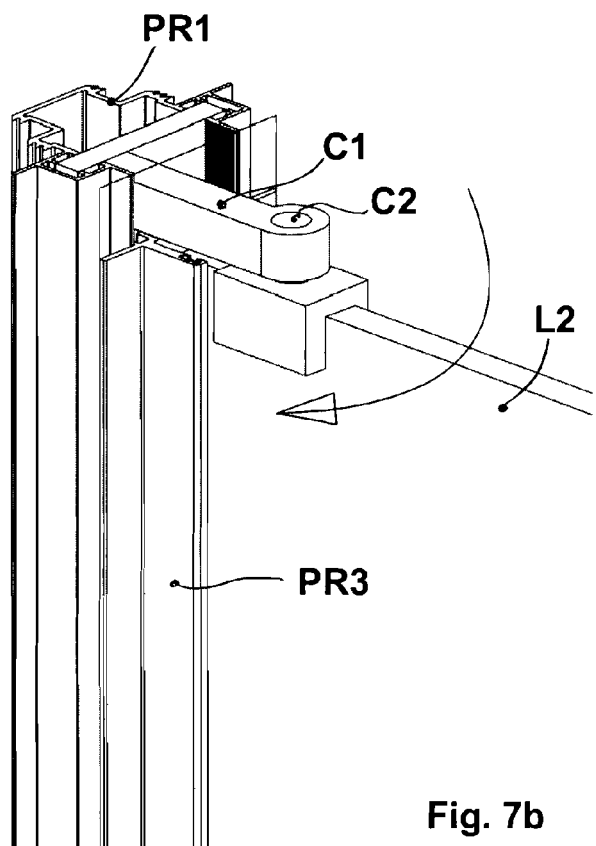


Fig. 7b

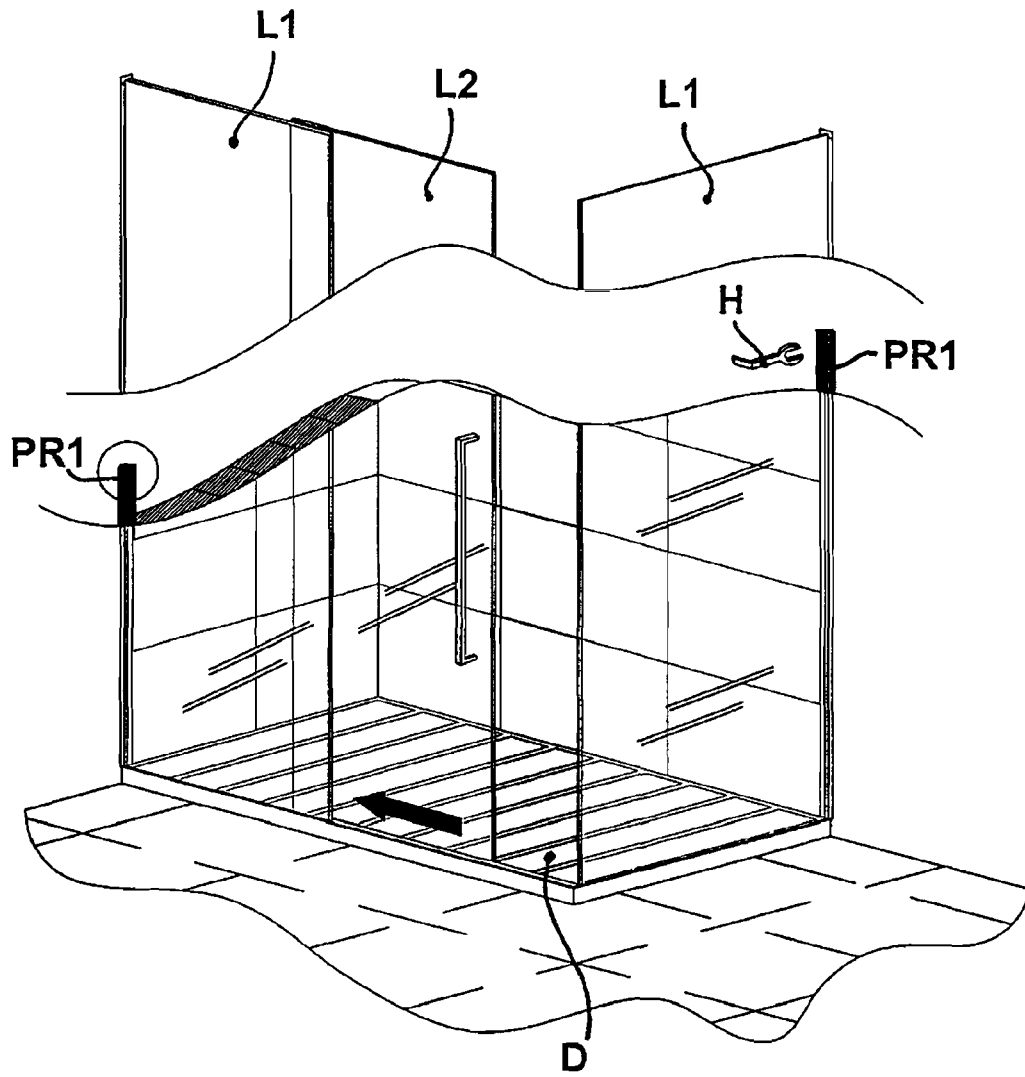


Fig. 8

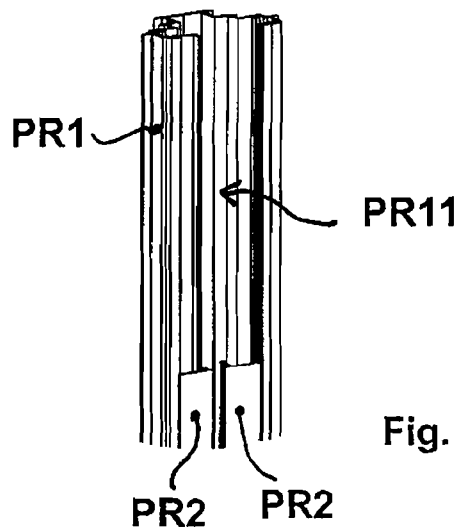


Fig. 8a

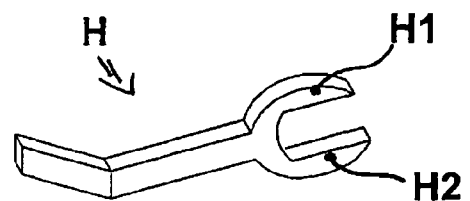


Fig. 8b

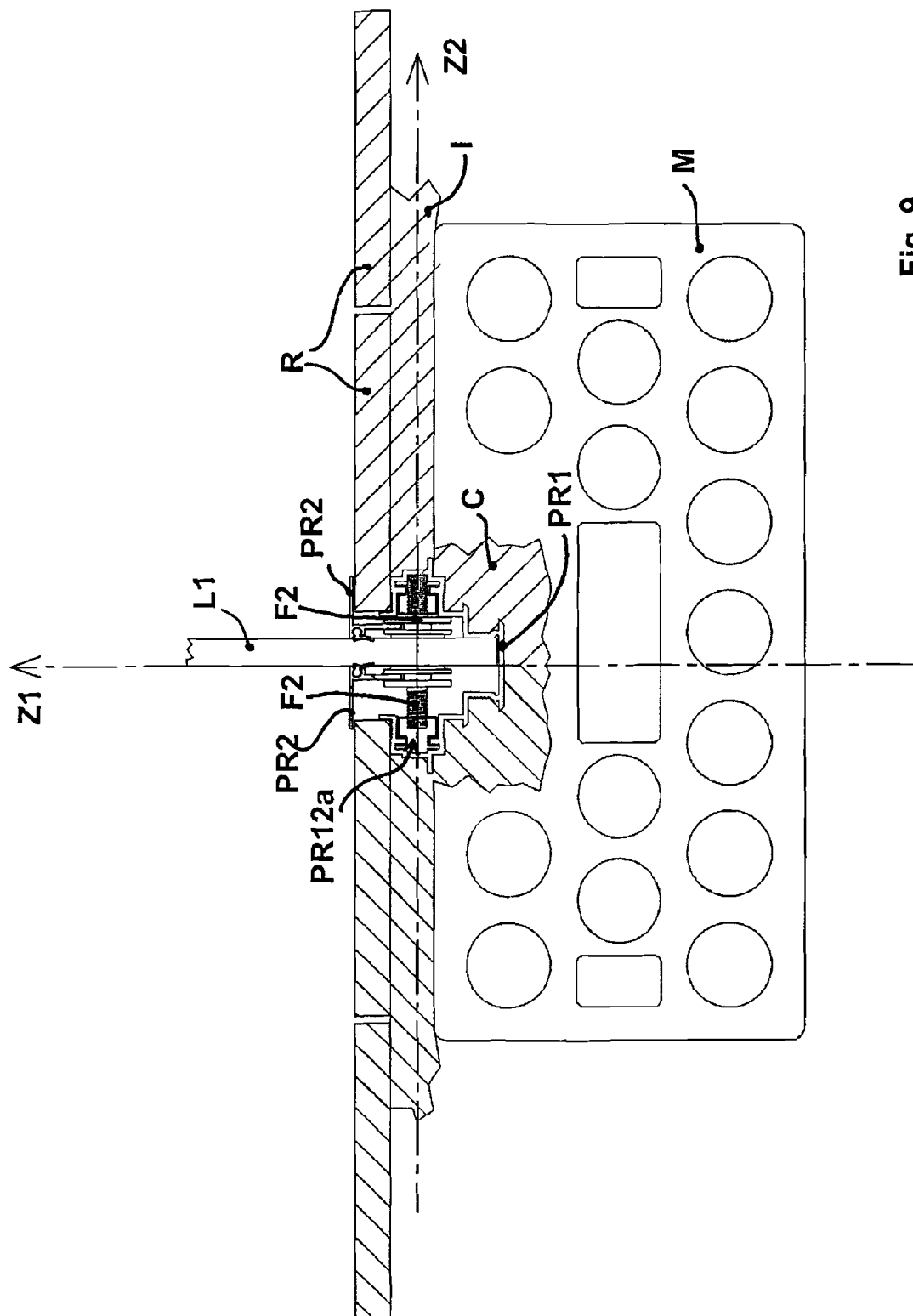


Fig. 9

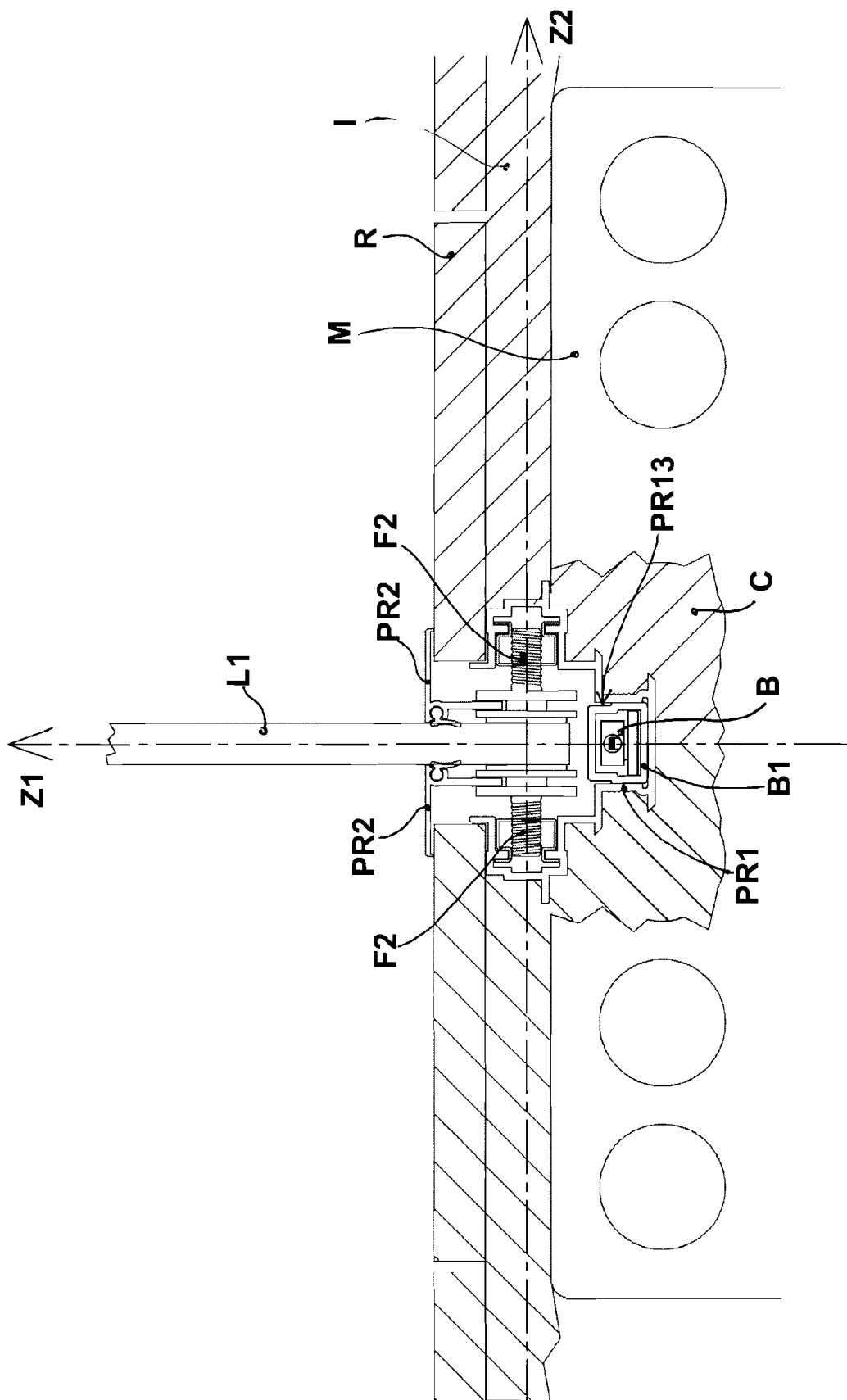


Fig. 10