

SCREEN FOR SHOWER UNIT OR BATH

This invention is in the field of domestic appliances, and involves a screen, a shower screen, in order to use a bath as a shower unit.

We are accustomed to screens made for baths which prevent water from spraying out of the bath and onto the floor. These screens comprise one or more panels connected by a slide or pivotally, which may rest for support against the side of the bath, or alternatively can be raised and dropped against the wall above the taps. A spring, such as a gas spring, assists in the raising of the panel (3) by the user.

It is essential that the contact between the panel and the side of the bath is watertight, that the full weight of the screen presses on the joint of the lower side of the screen, and that in consequence, in the lower part of the panel the spring does not exert pressure on the joint; it is also essential to compensate for a possible unevenness between the frame and the edge of the bath.

The screen of the invention is of the type aforementioned comprising at least one panel consisting of a frame formed of sections supporting glass, the said panel being mounted to slide along a wall section fixed to the frame by means of a section on which is mounted pivotally, in such a way that the panel can either be supported against the side of the bath in one position, say low, or can be raised, in a position say high, and be dropped against the frame above the taps, said screen being equipped with means to assist in raising consisting of a spring, (gas in particular), fixed in the wall section and compressed between supports respectively supported by the mid section and the wall section, in such a way that the spring exerts upward pressure on the mid section just greater than the weight of the panel.

To satisfy the above requirements, the invention has been to equip the screen with means to divert the pressure of the spring from the support that it places on the support held up by the mid section, towards an abutment supported by the wall section, when the screen is in the low position.

One result of these arrangements is that as the spring no

longer exerts any upward pressure on the screen in the low position, the latter can rest naturally with all its weight on the side of the bath.

Beneficially, the said means of diversion includes the means to convert the effort applied by the user to move the screen when raising or lowering, into vertical pressure causing the said movement of the screen on the one hand, and on the other hand into perpendicular pressure in the general direction of the spring causing a transversal movement of the latter.

One result of these arrangements is the automatic operation of the said means of diversion to position the spring, either in support against the support supported by the wall section, or in support against the abutment supported by the wall section, according to the direction of movement of the screen. In other words the user makes use of means of assistance in the raising of the screen when raising the screen or alternatively does not make such use when lowering the screen, without him having, without worrying that is, to take steps in addition to those aimed at raising and lowering the panel.

For example, the means of deviation include opposing supports installed respectively on the abutment and on the said support for raising the screen, the distance d separating transversally the abutment from the support for the raising of the panel being less than the transversal bulk of the latter, in such a way that the spring, by reason of the upward or downward pressure exerted by the user on the panel, takes support alternatively along each of the inclined supports, and finally is drawn either towards the abutment or the support for raising the screen against each of which he takes support when one or the other is in an overhanging position.

It will be understood that, in like manner and without derogating from the general rule set out and illustrated in this example:

1. the inclined supports can be either curved or flat, and can be installed equally, either on that part of the spring supported on the abutment and on the support for raising the

screen, and / or on the abutment and the support.

2. where the movement of the screen takes place between the mid section and the wall section, the panel would be mounted running along the mid section and the spring would be supported against the mid section and on the screen with a view to its raising, and that the dispositions relating to the installation of the preferred means of deviation of the invention would then be applied in symmetry for the mid section and the section of the panel frame facing the letter, in the same way that that has been described for the wall section and the mid section.

Embodiments of the present invention will now be described, by way of example only, with reference to the accompanying drawings, in which:

Figures 1 and 2 are illustrations of a screen of the kind upon which the invention is based, placed in the context in which it is used,

Figures 3 and 4 are successive basic outlines of the invention in the preferred method of realisation,

Figures 5 and 6 are cross-sectional views, respectively lengthwise and transversal of a screen of the invention in accordance with the preferred method of realisation shown in the preceding outlines,

Figure 7 is an enlarged view of part of Figure 6,

Figure 8 is a partially cut away perspective view of a screen illustrated in the preceding Figures.

In Figures 1 and 2 a bath 2 has been equipped with a screen made up of several panels, such as 4, linked one to the other and consisting of a window 6 supported by a frame made up of sections such as 8. An end panel 4 is mounted running along a wall section 10, by means of a section 12 on which is it pivotally mounted 4, in such a way that the panels 4 can, either be lowered in a low position against the side 16 of the bath 2, or be raised in a high position to be dropped down above the taps 18. (Figure 2)

In Figures 5 and 6 a gas spring 20 exerts pressure greater than the weight of the screen which assists the user in

raising the latter, the spring 20 being placed in the wall section 10 and resting on support 22 fixed on the wall section on the one part and on support 24 supported by the mid section 12. So that the panels 4 making up the screen rest water tightly on the side 16 of the bath 2, the invention aims to do away with the support of the spring 20 on the screen in such a way that the weight of the latter rests naturally on the side 16 of the bath 2.

In Figures 3 and 4, the pressure of the spring 20 is diverted between two supports, from one under the support 24 supported by the mid section 12 towards another under an abutment 26 supported by the wall section 10. Opposing supports 28 and 30 are respectively installed on the abutment 26 and on support 24 of the spring 20 on the mid section 12. It will be noticed that the distance d separating crosswise the abutment 26 and the support 24 is less than the width of the spring 20. The supports 28 and 30 accommodate transversally the spring 20 and hold it either under the abutment 26 through the effect of a downward movement (arrow 1) of the mid section 12 as described in Figure 4 and in dotted line in Figures 5 and 8, or under support 24 through an upward movement (arrow 3) of the mid section 12, as described in Figures 3, 5 and 8.

With such a structure, screen 4 is automatically freed from any upward constraint so that it rests naturally on the side 16 of the bath 2 during lowering by the user and automatically fixed in place as a result of the pressure of the spring during raising.

It will be understood that it will be sufficient for the screen 4 to rest naturally on the side of the bath to transfer the pressure exerted by the spring 20 out of the support that it places on panel 4, and that the presence of the abutment 22 on meeting the expansion of spring 20, which would without such presence cease to be under any pressure, enables one to place the spring 20 once again in position for the raising of panel 4.

In Figures 5 to 8, which illustrates the preferred method for implementing the invention in accordance with which the

inclined supports 28 and 30 are installed on the abutment 26 and the support 24:

- abutment 26 supported by the wall section 10 is made up of a strip of stretched trapezohedron, in plastic for example, extending over a length more or less equivalent to that the spring 20, and for the support of the latter following its axis of expansion, or in other words to avoid bending of the spring 20 when panel 4 is in high position; strip 26 is preferably applied, by sticking, for example, onto a track 32, (the first), placed inside wall section 10.

- support 24 for the raising of the screen 4 is made of short trapezohedron and is applied, by screwing for example, to an outside face of mid section 12, in the latter being mounted running on track 34, the second, placed within wall section 10 opposite the first track 32.

In accordance with another aspect of the invention the mid section 12 moves with a certain amount of give along the section track 34 by means of a couple of sets of roller which it supports at each of its ends.

These arrangements result in a definite watertight fit between the screen and the side 16 of the bath 2, notwithstanding an ill fit between frame 38 and the side 16 of the bath 2, that because each of the panels 4 can rest on the side 16 of the bath 2 thanks to the aforementioned give.

One may notice on Figure 7 the judicious structure of the set of rollers 36, rollers 40 and 42 comprising each of the sets 36 being linked together by slight interlocking.

Although we have described and represented a preferred method of realisation of the invention, it must understood that the range of the invention is not limited to this form but may be extended to any screen comprising the characteristics set out above.

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CLAIMS:

1. Screen for shower unit or bath (2), of the type of screen comprising at least one panel (4) made up of a frame made up of sections (8) supporting glass (6), the said panel (4) being mounted running along a wall section (10) fixed to the frame (38) by means of a section (12) on which it is pivotally mounted (14) in such a way that the panel (4) can be either in support against the side (16) of the bath (2) in one position - low, or can be raised to a high position and be dropped down the frame (38) above tap (18) of said bath, the said screen being equipped with means to assist in raising consisting of a spring (20) fixed in the wall section (10) and pressed between supports (22, 24) respectively supported by the mid section (12) and the wall section (10) in such a way that the spring (20) can exert upward pressure on the mid section (12) slightly greater than the weight of the panel (4) wherein said screen is equipped with means (24, 26, 28, 30) of diverting pressure of the spring (20) from the support that it places on the support (24) supported by the mid section (12) towards an abutment (26), supported by the wall section (10) when the screen is in low position.
2. A screen as claimed in Claim 1, in which the said means of diversion comprises means (28, 30) to convert the effort needed by the user to move the screen (4) when raising or lowering, into vertical pressure causing the screen (4) to move on the one hand and into a perpendicular pressure in the general orientation of the spring (20) to effect a transversal movement of the latter (20) on the other hand.
3. A screen as claimed in Claim 2, in which the means for diverting comprises opposing supports (28, 30) installed on the abutment (22) and on the support (24) for raising the panel, the distance d separating transversally the abutment (22) from the support (24) for raising the panel (4) being less than the transversal bulk of the latter (20).
4. A screen as described in Claim 3, in which the abutment (22) supported by the wall section (10) is made up of a first strip of trapezohedron whose length is equivalent to



the length of the spring (20), the said strip (22) being placed in a track (32), installed inside the wall section (10), and

in that the support (24) for raising the panel (4) is made up of a second short trapezohedron and is applied against an outside face of the mid section (12) the latter (12) being mounted running along a track (34), placed in the wall section (10) opposite the first channel (32).

5. A screen as claimed in Claim 4, in which the mid section (12) moves with a certain amount of give along the second track (34) by means of a couple of sets (36) of rollers (40, 42) which it supports at both ends.



ABSTRACT

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Screen for shower unit or bath (2) comprises at least one panel (4) made up of a frame and glass (6), the said panel (4) being mounted in such a way that the panel (4) can be either in support against the side (16) of the bath (2) in one position - low, or can be raised to a high position and be dropped down the frame (38) above taps (18) of said bath. The screen is equipped with means to assist in raising the screen consisting of a spring (20) which can exert upward pressure on the mid section (12) slightly greater than the weight of the panel (4). The screen is equipped with means (24, 26, 28, 30) of diverting pressure of the spring (20) from the support that it places on the support (24), supported by the mid section (12) towards an abutment (26), supported by the wall section (10) when the screen is in the low position.

fig. 1

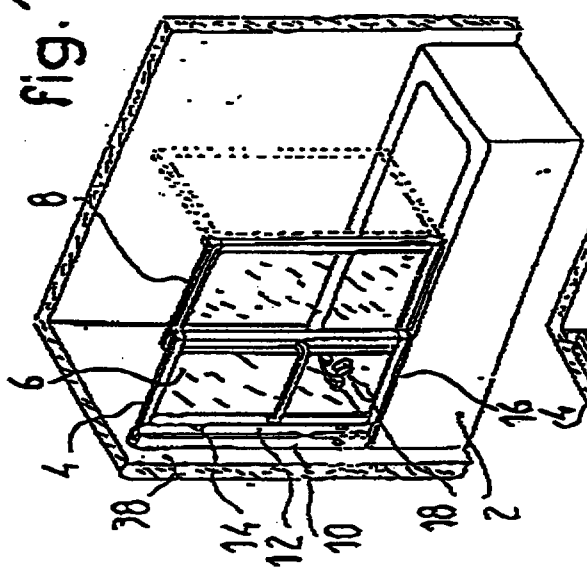


fig. 2

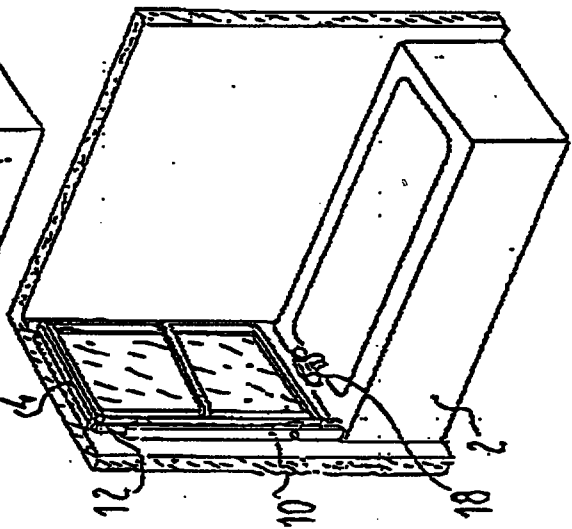


fig. 3

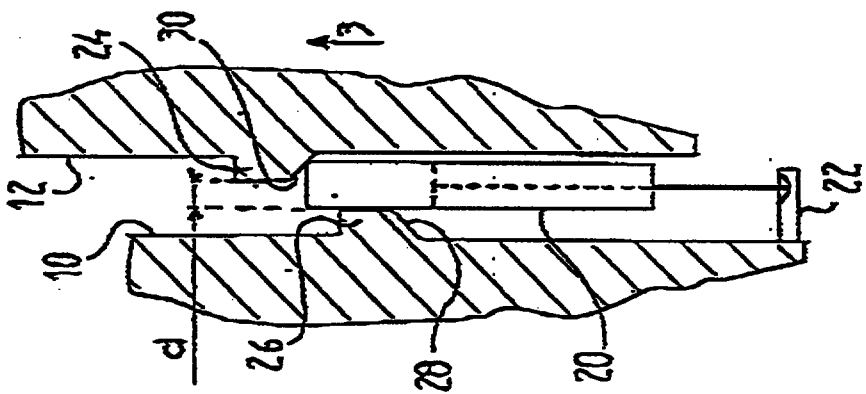
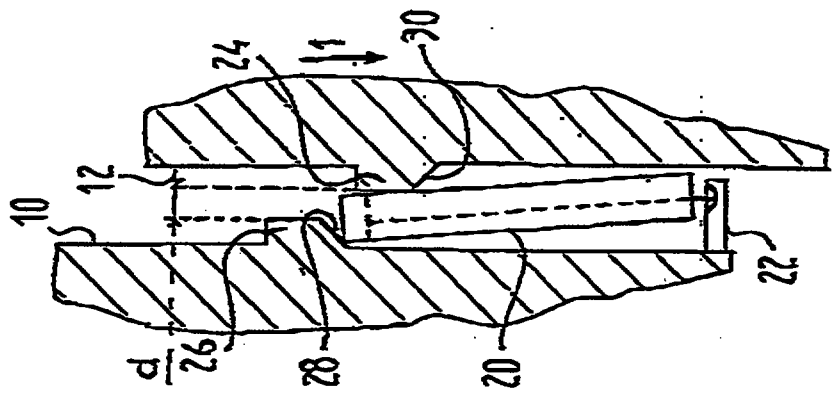


fig. 4



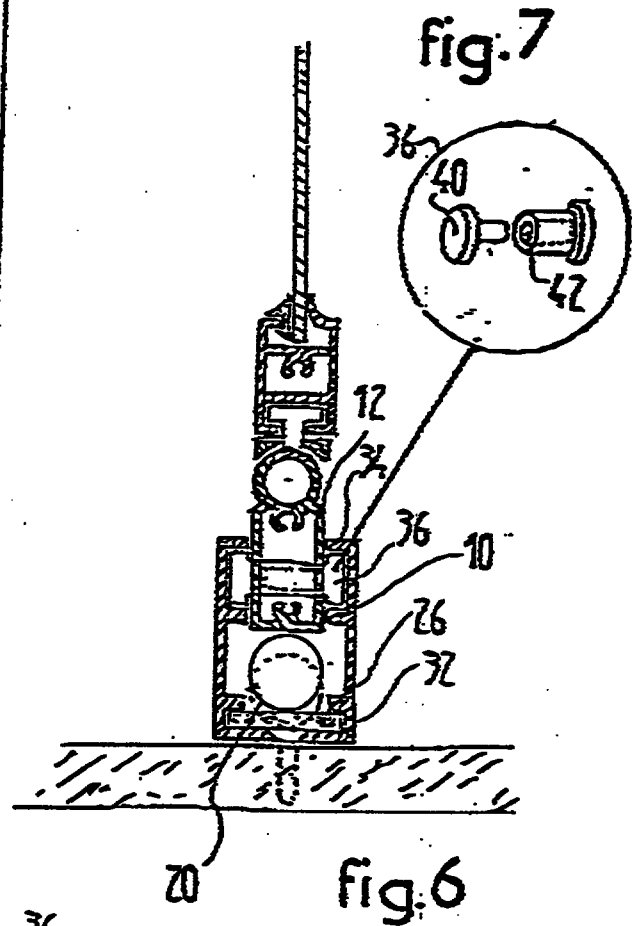
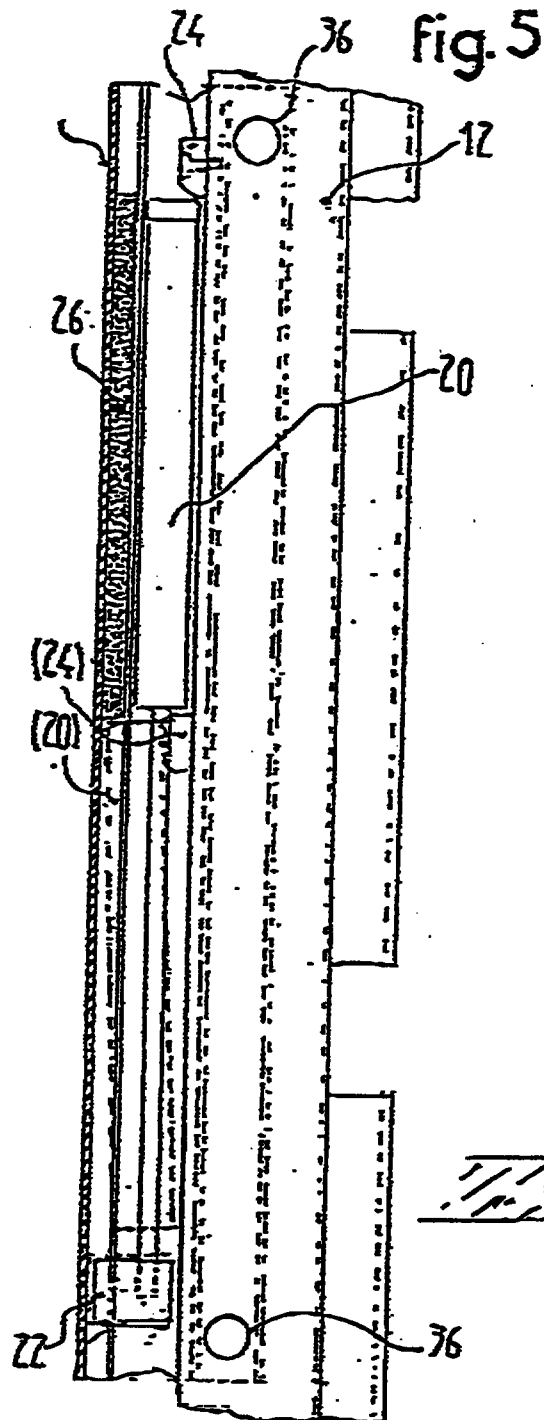
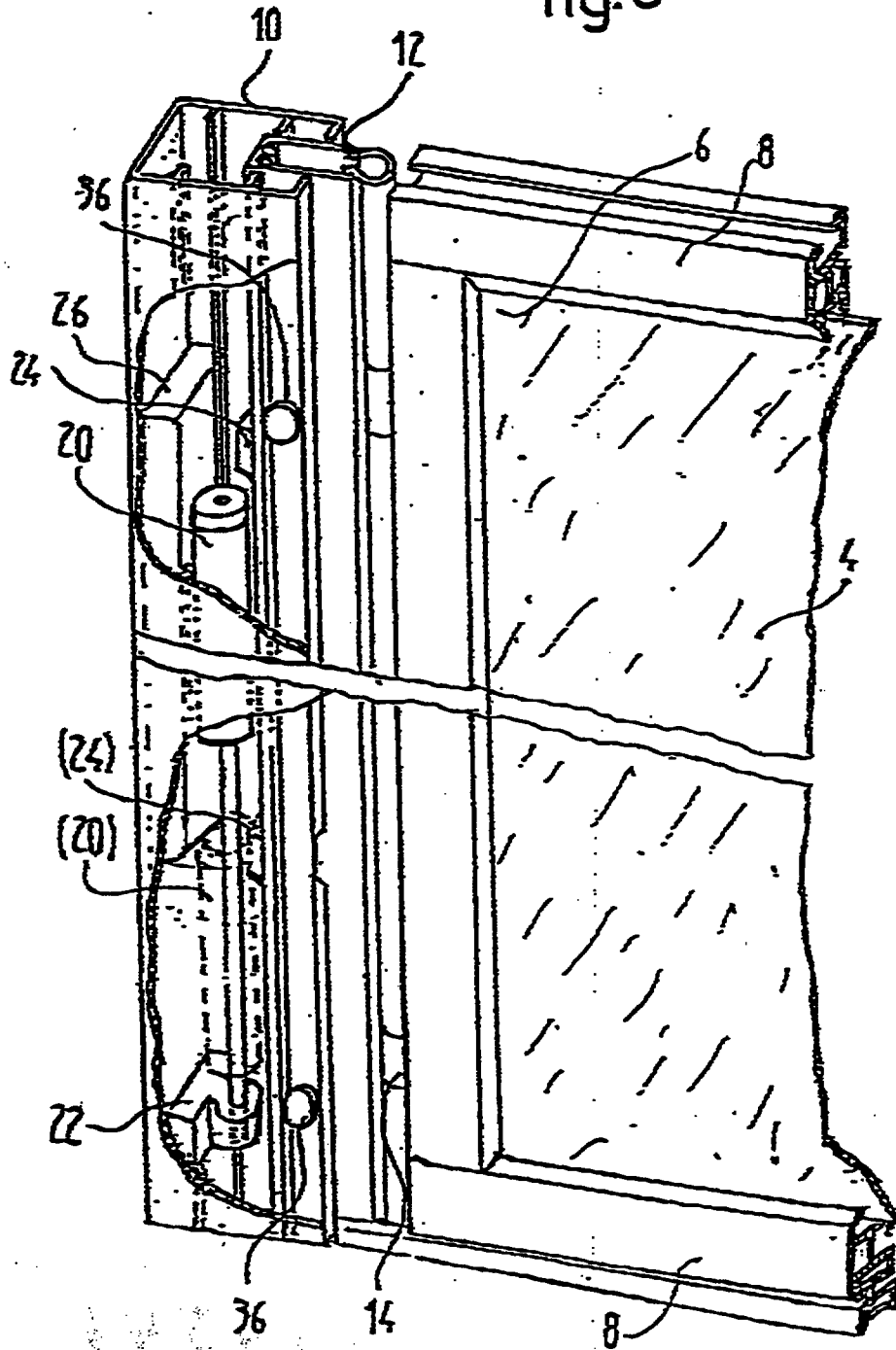


fig. 8



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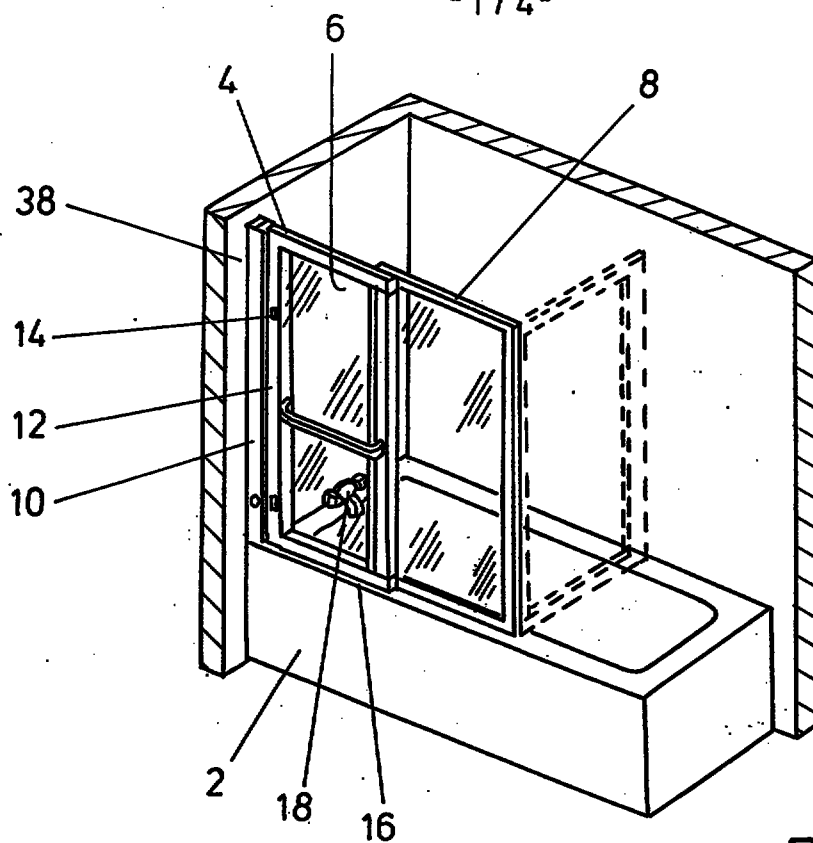


FIG. 1

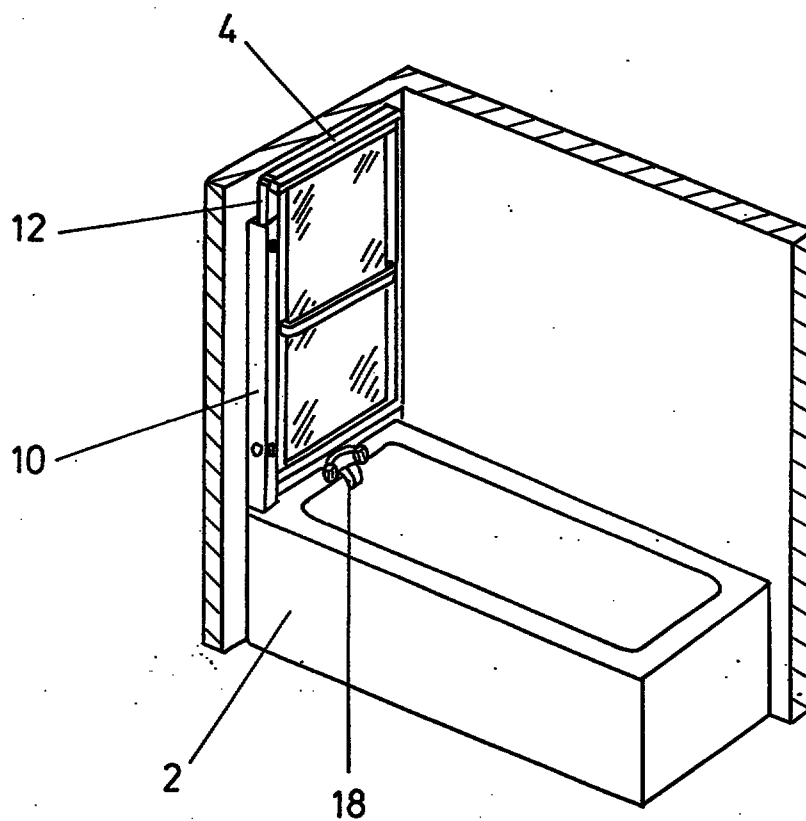


FIG. 2

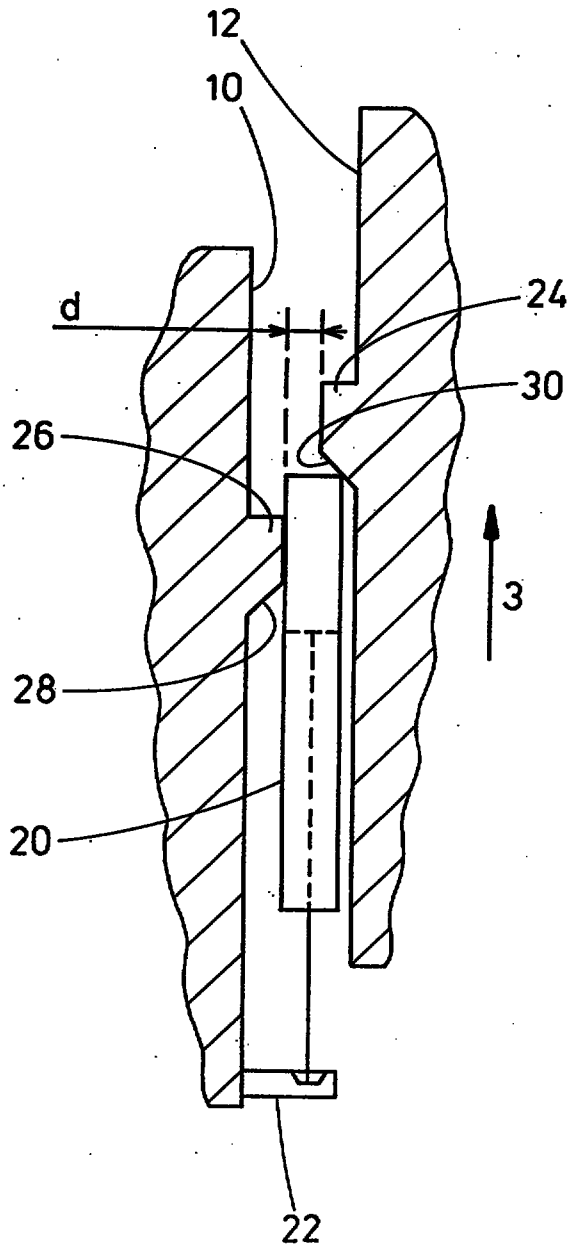


FIG. 3

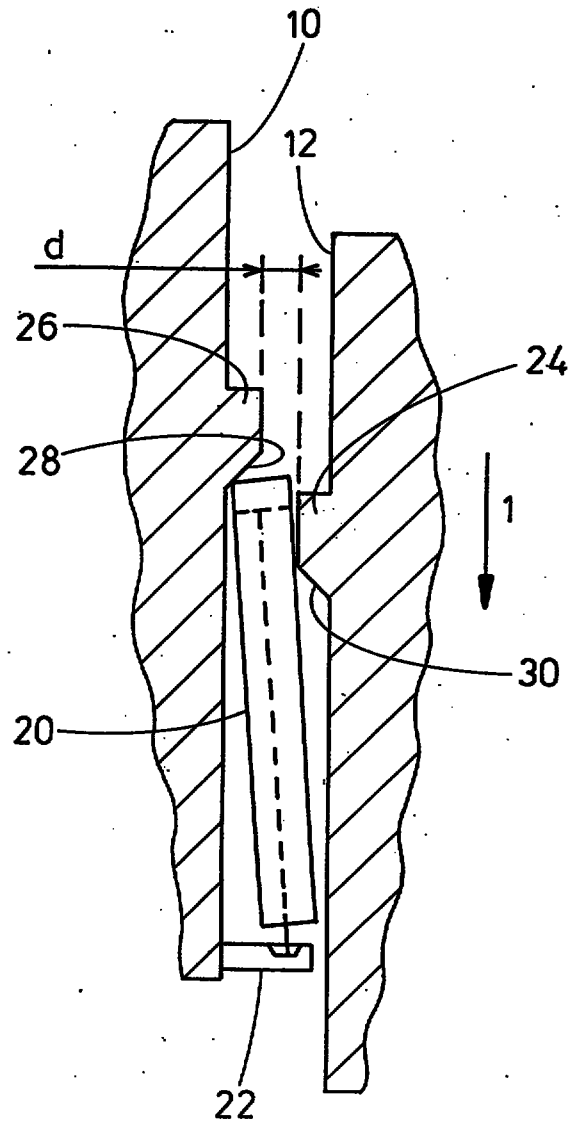


FIG. 4

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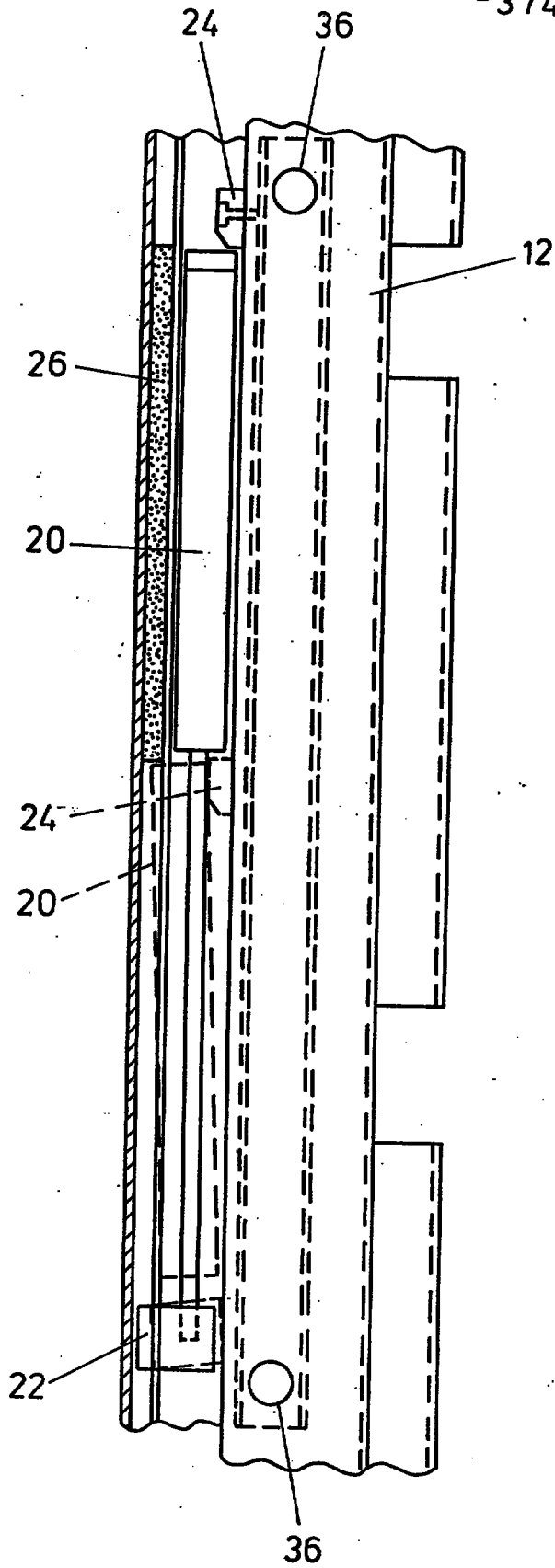


FIG. 5

FIG. 7

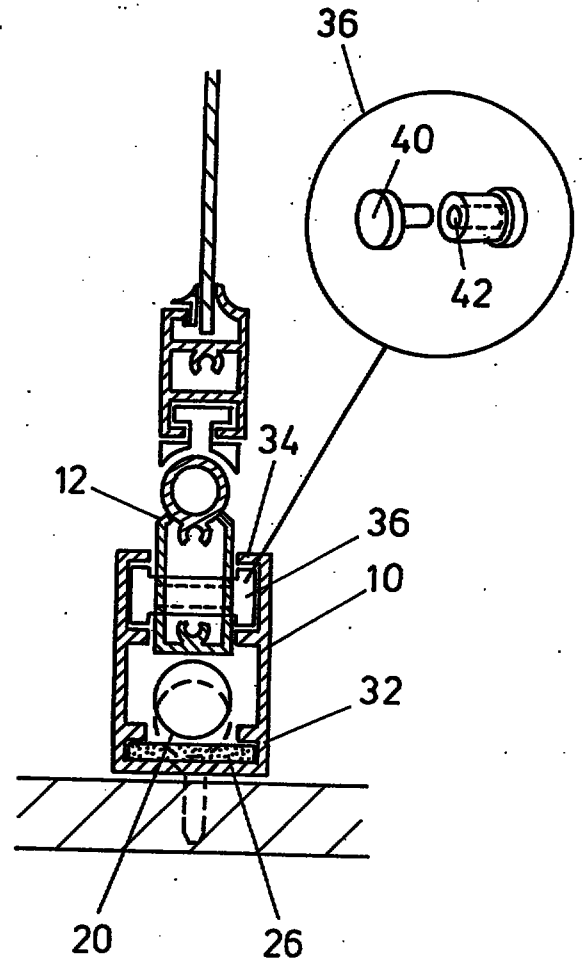


FIG. 6

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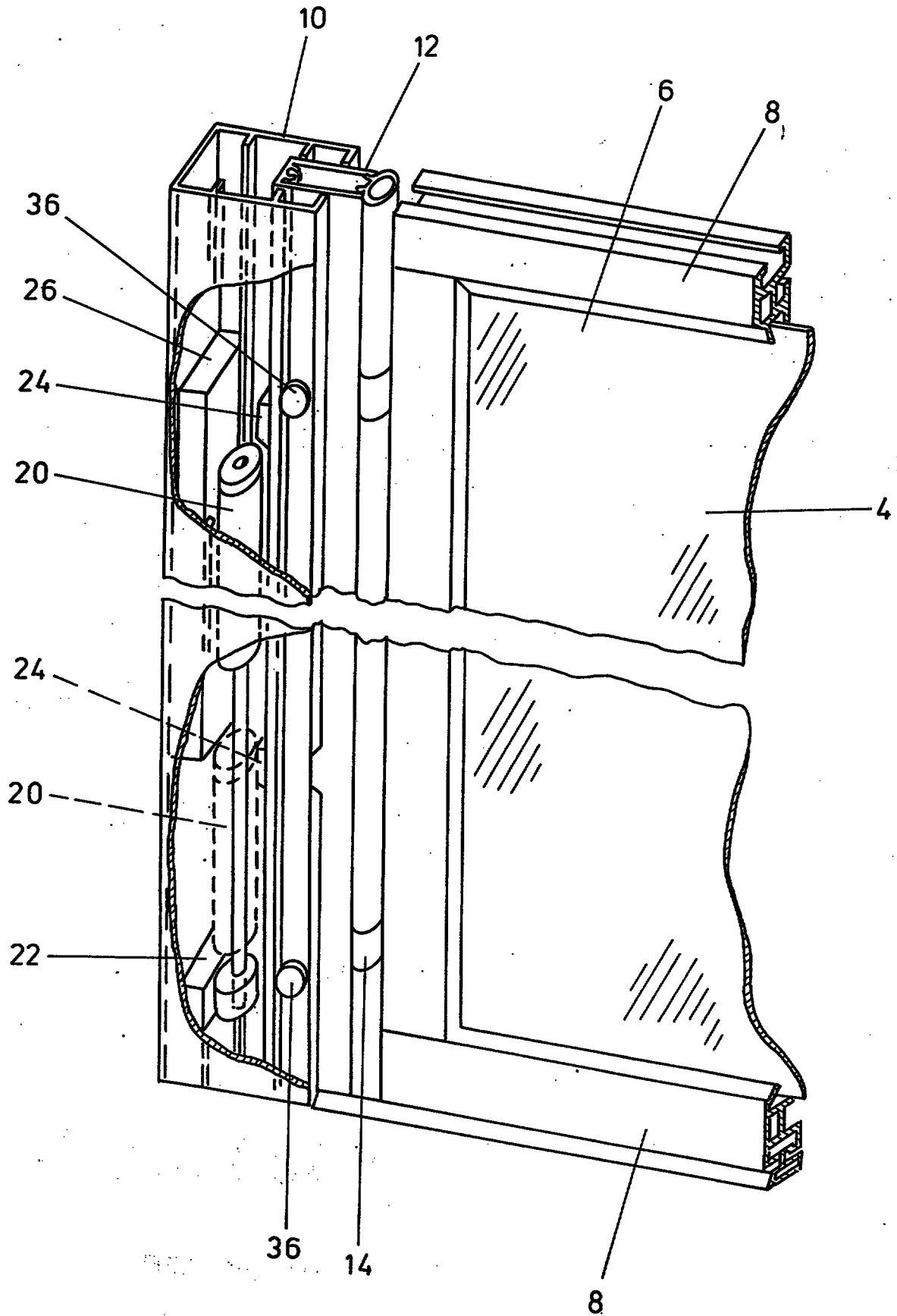


FIG. 8