



(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
15.06.2011 Bulletin 2011/24

(51) Int Cl.:
A47K 3/30 (2006.01)

(21) Application number: **10251839.6**

(22) Date of filing: **22.10.2010**

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

(30) Priority: **26.11.2009 GB 0920711**
02.08.2010 GB 1012975

(71) Applicant: **Impey (UK) Limited**
Axminster, Devon EX13 5AD (GB)

(72) Inventors:
• **Toms, Matthew Jason**
Chard, Somerset TA20 1DL (GB)
• **Melville, Nick**
Exter, EX4 6NA (GB)

(74) Representative: **Greenwood, Matthew David et al**
Bryer, Shelley, John Amor, Greenwood LLP
7 Gay Street
Bath BA1 2PH (GB)

(54) **A compensator device**

(57) A shower screen compensator device (20) comprising a first part (22) and a second part (24), one of the parts being attached or attachable to a shower screen (12), the other part being attached or attachable to a

shower screen or a surface (18), the parts being movable with respect to each other, in which movement of the parts has a linear degree of freedom and a rotary degree of freedom in the same plane.

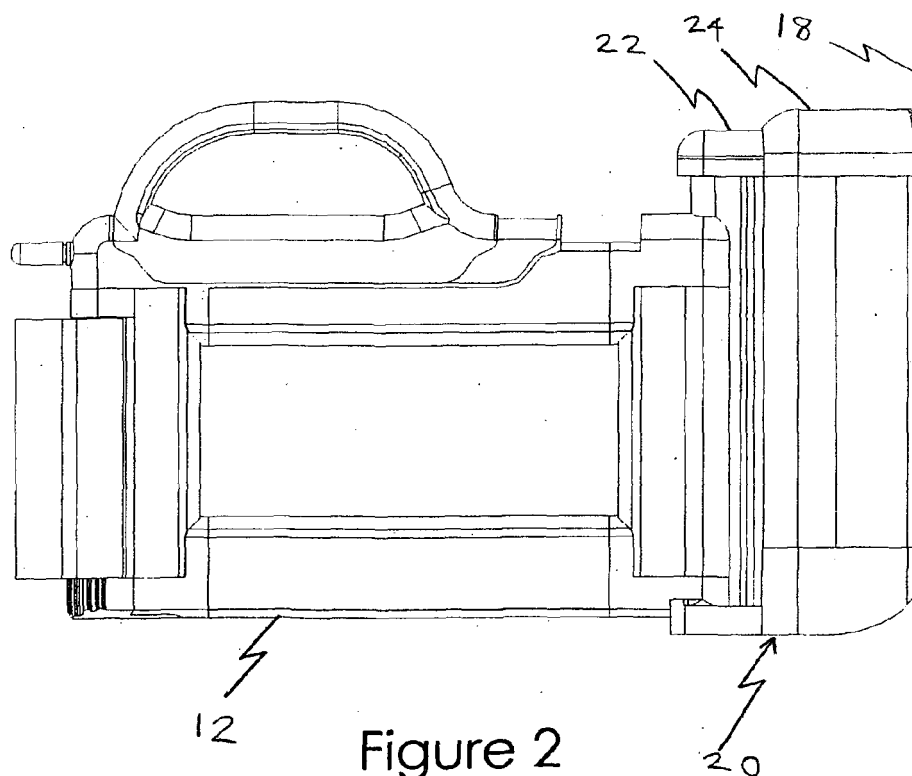


Figure 2

Description

[0001] The present invention relates generally to a compensator device and particularly to a compensator or adjuster for a shower screen.

[0002] Screens for bathing areas, showers, wet rooms and the like, collectively referred to in this application as shower screens, are usually supplied fully assembled ready for installation. Because the size of the screen itself is usually fixed this gives no flexibility in the positioning of the screen relative to a surface, such as a wall or floor, or a further screen.

[0003] According to a first aspect of the present invention there is provided a shower screen compensator device comprising a first part and a second part, one of the parts being attached or attachable to a shower screen, the other part being attached or attachable to a shower screen or a surface, the parts being movable with respect to each other, in which movement of the parts has a linear degree of freedom and a rotary degree of freedom in the same plane.

[0004] The present invention therefore provides an adjuster for allowing a screen to be situated in a range of positions relative to another screen or a surface, such as a wall or a floor. This means that the size of the screen is less critical and it can be properly fitted by adapting it to fit a variety of installations.

[0005] The device may comprise holding means for temporarily holding the parts in a required relative position prior to permanent fixing. The parts are movable with respect to each other but then held temporarily together so that the ideal position can be found before permanent fixing.

[0006] The fixing may, for example, comprise converting the parts from an unlocked, freely movable state, to a locked immobile state. Alternatively or additionally a fixing means, such as a screw, bolt or the like, may be used to secure the parts together.

[0007] The first part may be an inner part and the second part may be an outer part. The inner part may then be movable into and out of the outer part to adjust the position of a screen.

[0008] The holding means may comprise clamp means for clamping one part onto the other. The clamping force can be released and/or overcome to effect adjustment.

[0009] The holding means may comprise complementary formations provided on respective parts. For example one of the parts may comprise a plurality of ribs and the other part may comprise one or more dimples for engaging between the ribs. The dimple can be moved between.

[0010] Movement of the parts may have one or more additional degrees of freedom. The degree/s of freedom may be linear and/or rotary. The movement therefore includes at least one linear and one rotary degree of freedom so that the parts can separate and approach and also one part can rotate with respect to the other to allow

angling of the parts.

[0011] According to a further aspect of the present invention there is provided a shower screen fitted with a device as described herein.

[0012] According to a further aspect of the present invention there is provided a shower cubicle comprising one or more screens as described herein.

[0013] The present invention will now be more particularly described, by way of example, with reference to the accompanying drawings, in which:

Figure 1 is a side view of a shower screen assembly;

Figure 2 is a side view of a shower screen forming part of the assembly of Figure 1;

Figure 3 is a side view of a compensator device connected to the shower screen in Figure 2;

Figure 4 is a side view of the compensator device of Figure 3 shown following an adjustment;

Figure 5 is a section of the device of Figure 3 shown in an extended position; and

Figure 6 is a section of the device of Figure 3 shown in a retracted position.

[0014] Referring first to Figure 1 there is shown a shower screen assembly generally indicated 10. The assembly 10 comprises a first panel 12 which is connected at one side to a further screen 14 by a hinge assembly 16 and at its other side to a wall 18 via a compensator device 20 formed according to the present invention.

[0015] Referring now also to Figures 3 and 4, the compensator device 20 comprises an inner part 22 which is attachable to the side of the screen 12, and an outer part 24 which is fixable to the wall 18. In Figures 3 and 4 the screen is shown removed for clarity.

[0016] The parts 22 can be adjusted with respect to the parts 24 so that the position of the screen 12 can be adjusted with respect to the wall 18. In other words, the gap between the wall 18 and the screen can be adjusted to suit a particular installation.

[0017] In its simplest form the invention could involve movement having one linear degree of freedom, which in this case would be rectilinear movement of the part 22 into and out of the part 24. However, in this embodiment the parts are adapted so that an additional, rotary, degree of freedom in the same plane is permitted. This allows the part 22 to be tilted relative to the part 24 as shown in Figure 4. This is useful in situations where a wall is not orthogonal to a floor and thus the screen can be positioned so that it is parallel to the floor and yet angled to the wall. Other embodiments in which different and/or further degrees of freedom are provided for are possible.

[0018] The intention of this embodiment is that movement of the part 22 is relatively easy and yet once a re-

quired position has been found the device 20 will hold a screen 12 in place whilst a more permanent fixing is made between the parts 22, 24.

[0019] The part 22 comprises a connector portion 22a at one end for connection to the screen 12. From either end of the connector 22a a pair of parallel sidewalls 23a, 23b extend. At the opposite end of the part 22 the sidewalls 23a, 23b are not connected together so that the part has a generally U-section.

[0020] The interior surface of the part sidewalls 23a, 23b are provided with a plurality of elongate, longitudinal ribs 26 which define a plurality of grooves 28 at the troughs therebetween.

[0021] The part 24 comprises a back plate 30 from which extend from either end a side wall 32, 34.

[0022] The side walls, 32, 34 included an indented section 32a, 34a which terminate with a hook 32b, 34b.

[0023] A shroud section 36 is connected to the recess formed by the indents 32a, 34a and the hooks 32b, 34b. The shroud 36 terminates with a curved mouth region 38 into which the part 22 is inserted.

[0024] Connected to and projecting from, the back-plate 30 is a generally V-section clamp member 40. The member 40 comprises a pair of spring clamp arms 42, 44 which are formed from a resilient material such that if they are squeezed towards each other they tend to spring apart. At the end of each arm 42, 44 a hemispherical dimple 46, 48 is carried on the outer surface. In this embodiment two longitudinally spaced clamps are provided; in other embodiments one or two or more members may be provided.

[0025] When the part 22 is assembled into the part 24, the part side wall 23 slides into the mouth 38 and is then guided by the indents 32a, 34a. The clamp 40 enters the part between the sidewalls 23a, 23b. Eventually the dimples 46, 48 engage into the grooves 28 and are held firmly in the grooves 28 by virtue of the resilience of the arms 42, 44 pushing outwards.

[0026] The part 22 can now be adjusted with respect to the part 24 by pushing or pulling the part to cause the dimples 46, 48 to pass over the ribs 26 and into the grooves 28.

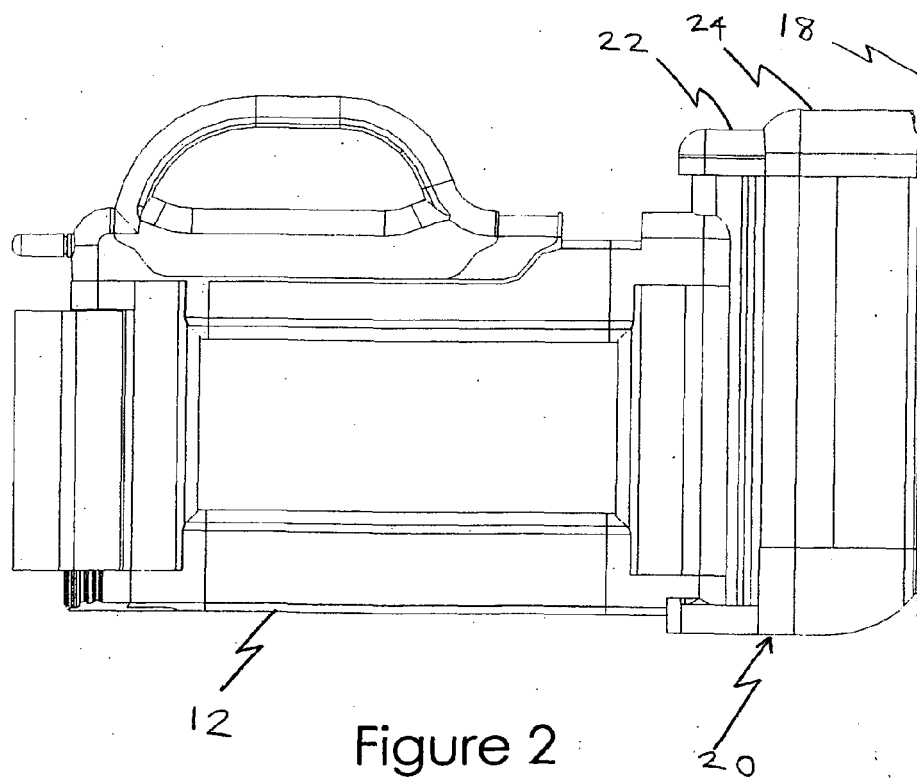
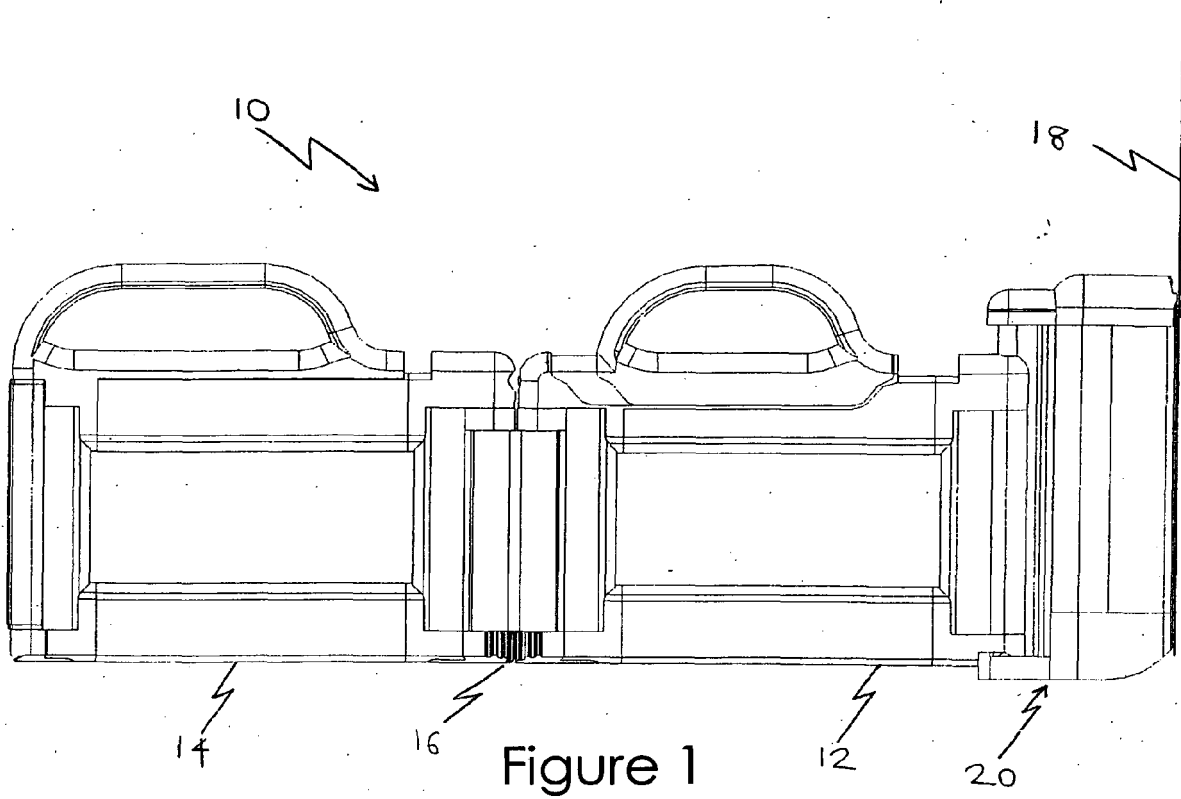
[0027] The arms 42, 44 provide an outwardly biased clamping force onto the inner part and so at any relative position of the parts the device can be stable i.e. it will not move from this position without a deliberate force being applied.

[0028] Because the dimples 46, 48 are hemispherical, movement of the part 22 is not restricted to rectilinear motion. In other words, the dimples 46, 48 are not restricted to being in the grooves directly opposite each other. This means that the part 22 can be rotated relative to the part so that it can be inclined if necessary to accommodate a wall/floor interface.

[0029] When the parts 22, 24 are in a required relative position they can be permanently fixed together, in this embodiment by a fixing (not shown) such as a screw.

Claims

1. A shower screen compensator device comprising a first part and a second part, one of the parts being attached or attachable to a shower screen, the other part being attached or attachable to a shower screen or a surface, the parts being movable with respect to each other, in which movement of the parts has a linear degree of freedom and a rotary degree of freedom in the same plane.
2. A device as claimed in Claim 1, in which the device comprises holding means for temporarily holding the parts in a required relative position prior to permanent fixing.
3. A device as claimed in Claim 1 or Claim 2, in which the first part is in an inner part and the second part is an outer part, the inner part being movable into and out of the outer part.
4. A device as claimed in any of Claims 1 to 3, in which the holding means comprises clamp means for clamping one part onto the other.
5. A device as claimed in any preceding Claim, in which the holding means comprise complimentary formations provided on respective parts.
6. A device as claimed in any preceding Claim, in which one of the parts comprises a plurality of ribs and the other part comprises one or more dimples for engaging between the ribs.
7. A device as claimed in any preceding Claim, in which movement of the parts has one or more additional degrees of freedom.
8. A device substantially as hereinbefore described with reference to, and as shown in, the accompanying drawings.
9. A shower screen fitted with a device according to any preceding claim.
10. A shower screen substantially as hereinbefore described with reference to, and as shown in, the accompanying drawings.
11. A shower cubicle comprising one or more screens according to Claim 9 or Claim 10.



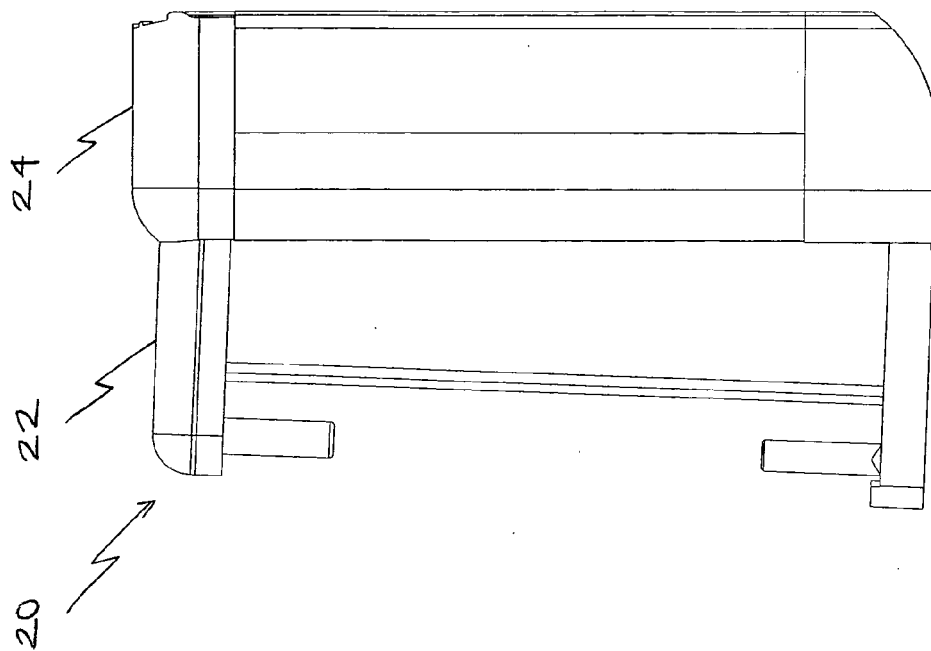


Figure 4

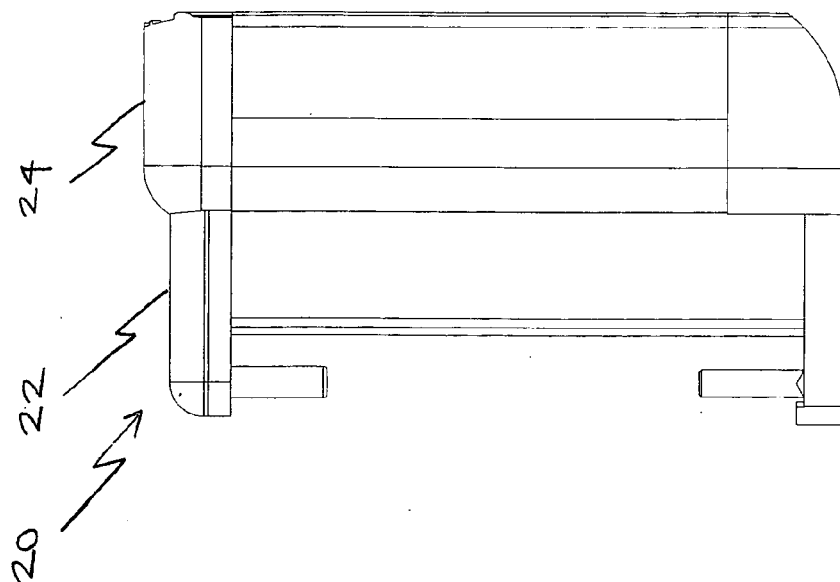


Figure 3

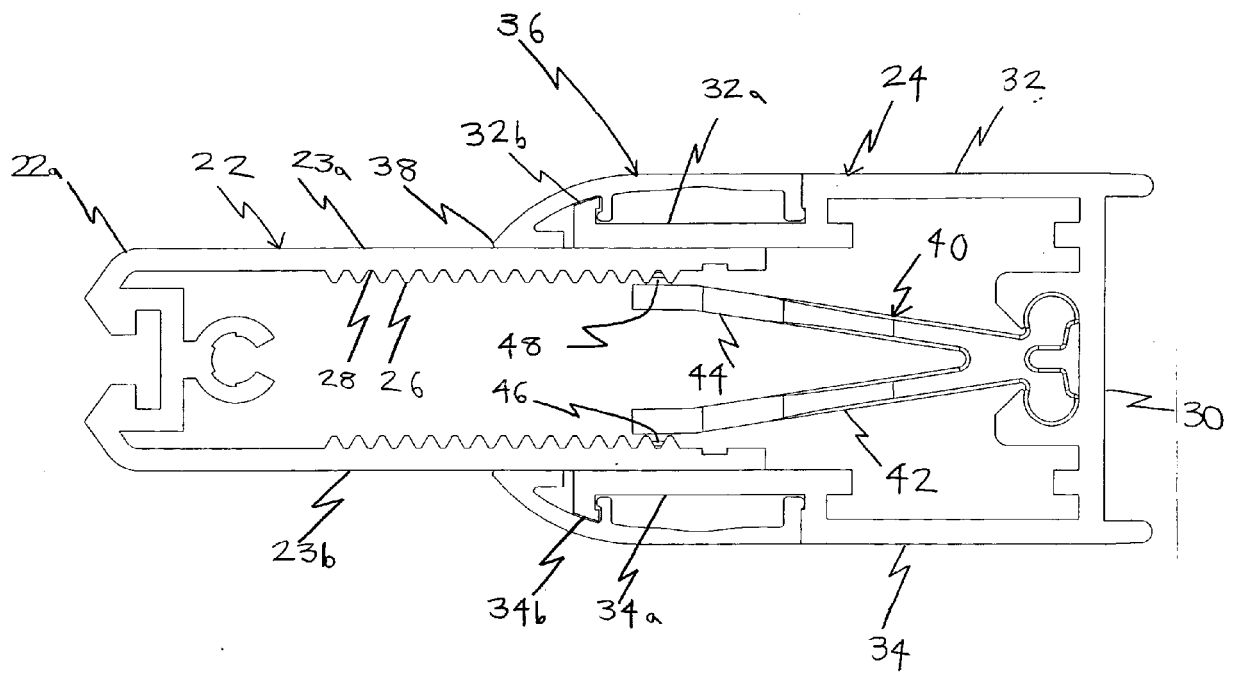


Figure 5

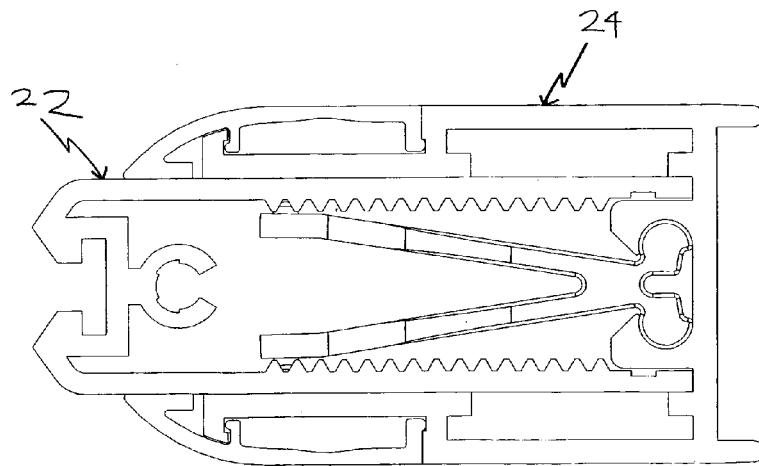


Figure 6