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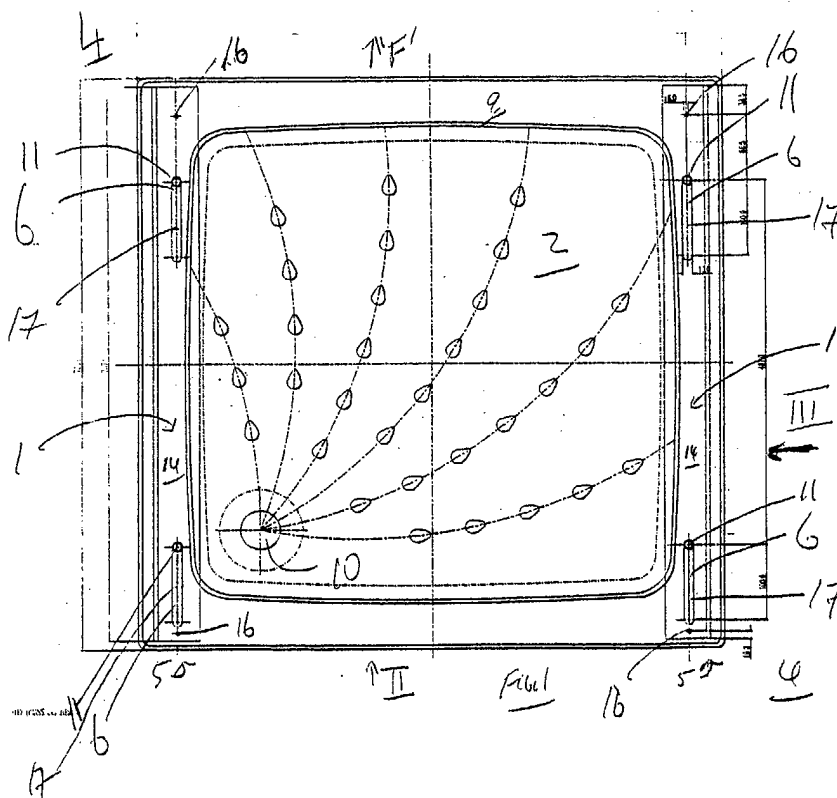
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(54) A mounting system for an item

(57) The invention relates to a device 1 for mounting an item such as a shower tray 2 or bath on a substrate in a location such as an alcove 4 with restricted access to a part of the device, comprising a support element

adapted for supporting the item 2 and being securable to the substrate 3 and the item 2 and having means 6 to allow shifting of the item 2 relative to the support element 1 to provide access to the said part 5.



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Description

[0001] The invention relates to a device and mounting system for mounting an item such as a shower tray or bath on a substrate in a location with restricted access to a part of the device.

[0002] Shower trays can be designed to fit directly onto the substrate such as a floor in which case waste traps and waste pipes have to pass below the floor, which may involve drilling wooden joists, chasing out solid concrete floors etc.

[0003] To overcome these problems, raised shower trays have been produced which are usually supported on a number of adjustable feet which are fixed to the bottom of the shower tray either from a wooden base board or from threaded inserts moulded into resin concrete backed shower trays. Separate moulded panels are supplied to fill in the gap between the bottom edge of the shower tray and the floor.

[0004] There are problems in positioning this type of tray in an area of restricted access such as an alcove as the tray has to be pushed into position, which may cause the supporting feet to bend. Another problem is that the rear feet of the tray cannot be screwed to the floor; only the front feet can be fixed and the tray is not secure until the wall is tiled and the tiles overlap the back edge of the tray.

[0005] It is an object of the invention to seek to obviate the disadvantages hereinbefore described.

[0006] According to first aspect of the invention there is provided a device for mounting an item on a substrate in a location with restricted access to a part of the device, comprising a support element adapted for supporting the item and being securable to the substrate and the item and having means to allow shifting of the item relative to the support element to provide access to the said part.

[0007] According to a second aspect of the invention there is provided a system for mounting an item such as a shower tray or bath in a location with restricted access to a rear of the item, comprising a plurality of devices as hereinbefore defined and an item which is mountable thereon and shiftable relative thereto to provide access to a rear of the item.

[0008] A device and a system embodying the invention are hereinbefore described, by way of example, with reference to the accompanying drawings.

Fig. 1 is a plan view of a system according to the invention;

Fig. 2 is an elevational view on arrow "II" in Fig. 1;

Fig. 3 is an elevational view on arrow "III" in Fig. 1;

Fig. 4 is an enlarged perspective view of part of a device according to the invention; and

Fig. 5 is a view of an alternative fixing means.

[0009] Referring to the drawings there is shown a device 1 for mounting an item such as a shower tray 2 or bath on a substrate such as a bathroom floor 3 in a location such as an alcove 4 with restricted access to a part 5 of the device 1, the device 1 comprising a support element adapted for supporting the item 2 and being securable to the substrate 3 and the item 2 and having means 6 to allow shifting of the item 2 relative to the support element 1 to provide access to the said part 5.

[0010] The part 5 is at the rear, in use, of the item 2, in the embodiment a shower tray which has a body moulded 7 from resin concrete with an outer skin 8 of plastic which is vacuum formed or gel coated. The tray 2 is generally rectangular in plan with an upstanding peripheral wall 9 and a waste outlet 10 at one corner. Integrally moulded in the body 7 under, in use, the wall 9 and at each corner are inserts 11 in the form of brass bosses with blind threaded holes for the securing means 6 in the form of fixing bolts 12 of the device 1. There are in the embodiment two devices 1 forming part of the system 1, 2 for mounting the shower tray 2 in the alcove. The devices 1 are identical so only one as described. The device 1 in the embodiment is a C-shaped aluminium extrusion which essentially defines a hollow body when installed, the web 13 and upper 14 (as viewed) and lower 15 (as viewed) limbs defining the "hollow" interior to provide access to the fixing bolts 12 and bolts or screws (not shown) by which the device 1 is secured to the floor 3 by passing through holes 16 in the lower limb 15.

[0011] The upper limb 14 has two elongate blind, longitudinally spaced apart but aligned through apertures in the form of slots 17.

[0012] In use the devices 1 which are support members or runners on which the shower tray 2 is mounted are secured to the shower tray 2 by the fixing bolts 12 which are passed through the fore and aft slots 17 into a respective vertically aligned insert 11. The shower tray 2 is pushed into position in the alcove 4 on the support members 1. The front of each support member is secured 3 to the floor by a screw passed through the fixing holes 16 in the lower limb 15. The tray 2 is then shifted bodily forwards, in the direction of arrow 'F' out of the alcove 4 a distance determined by the length of the slots 17 in the upper limb 14, usually for fixing bolts 12 to butt against the forward blind end of those slots. This provides access behind the tray to the now exposed rear parts 5 of the support members 1 which can then be secured in position on the floor 3 by screws passing through the rear fixing holes 16 in the lower limbs 15.

[0013] The tray 2 is then pushed back in the reverse direction into the alcove 4, to cover or hide the rear of the support members 1 and is locked in position by tightening up the fixing bolts 12 or by using separate locking screws through the extrusion.

[0014] The shower tray 2 is thus secured in position

in the alcove, i.e. an area providing restricted access to part (the rear) of the support members.

[0015] In a modification shown in Fig. 4, the lower limb 15 has a housing 18 for adjustable feet 19 which are used for levelling the tray 2. The feet 19 comprise a threaded bolt 20 with a lower foot 21 and an exposed hexagon head or flats 22. The bolt 19 is retracted so that the foot is clear of the floor when the tray 2 is pushed into the alcove 4. When positioned, the bolts 19 are wound down to engage the foot 21 on the floor 7 for levelling the tray 2.

[0016] Fig. 5 shows an alternative 23 to the brass insert fixing means 11. This alternative 23 has a threaded bar 24 with a perforated flange 25 which can be encapsulated in the tray 2 during moulding for secure attachment to the tray. The threaded bar 24 then extends through a slot 17, the securing means being a nut which can be screwed thereon from the underside of the upper limb 14.

[0017] Other modifications are possible. Thus the support element or device 1 can be of I-section or of box-shape in end elevation to provide the necessary "hollow" for access to the securing means.

[0018] The support element 1 may be made of any suitable material for example of aluminum die castings, steel pressings, or other fabrication, can be moulded, or fabricated or have pressed ends (fore and aft) with extrusions in between. The tray 2 or bath can be of any suitable material, for example G.R.P. other than resin concrete. The tray 2 can be of any suitable shape for example a quadrant, and there can be more than two devices 1, depending on the size of the tray. There may also be holes 26, shown in dotted lines in Fig. 3, formed as trays being punched or moulded in the web 13 of the C-section in the embodiment to permit waste pipes to pass through, the number of holes 26 providing flexibility and adjustability.

[0019] The centres of the security means 12 can also be arranged so that the devices 1 can be fixed 90° to the position shown in the drawings so that the position of the waste 10 can be changed.

[0020] The devices 1 could also be made by being injection moulded from a thermoplastic, or by being hot press moulded from a thermosetting plastic, in which case the holes 26 referred to could be formed during moulding, as could the slots, fixing holes etc. Although the system has been described with reference to installation of shower trays and baths, it is applicable to any suitable item which requires installation in a location providing restricted access.

Claims

1. A device for mounting an item on a substrate in a location with restricted access to a part of the device, comprising a support element adapted for supporting the item and being securable to the sub-

strate and the item and having means to allow shifting of the item relative to the support element to provide access to the said part.

2. A device according to claim 1, the support element being elongate and the means comprising a slot in a surface of the element on which the item is received.
3. A device according to Claim 2, there being two slots separated along the length of the support element.
4. A device according to Claim 3, the slots being blind.
5. A device according to Claim 4, the support element being hollow in end elevation and the slots being in an upper limb thereof in use.
6. A device according to Claim 5, there being through holes in the lower limb for securing the support element to the floor.
7. A device according to Claim 6, there being securing means in the slots for securing the upper limb and item together.
8. A device according to any of Claims 5 to 7, being an extrusion, a moulding, a pressing or a die casting, or being fabricated.
9. A device according to any of Claims 5 to 8, the support element comprising a C-shaped, I-shaped or box-section shaped support element.
10. A device according to any of Claims 5 to 9, comprising passage ways for ancillary equipment of the item.
11. A device according to Claim 10, the passage ways being through holes in the support element.
12. A system for mounting an item such as a shower tray or bath in a location with restricted access to a rear of the item, comprising a plurality of devices according to any preceding claim and an item which is mountable thereon and shiftable relative thereto to provide access to a rear of the item.
13. A system according to Claim 12, there being two support elements which are elongate, spaced apart and disposed substantially in parallel for supporting the item, the item having inserts substantially vertically alignable with the slots and adapted to receive securing means.
14. A system according to Claim 13, the inserts comprising screw-threaded inserts and the securing means comprising bolts.

15. A system according to Claim 14, the item comprising a resin concrete body in which the inserts are secured by moulding.
16. A system according to Claim 13, the inserts comprising threaded studs having a flange encapsulated by moulding in the body of the item and the securing means comprising nuts. 5
17. A system according to any of Claims 13 to 16, the devices comprising means to provide for levelling of the item. 10
18. A system according to Claim 17, the levelling means comprising adjustable feet in a lower limb of the support element. 15
19. A shower tray or bath mounted in position using a system according to any of Claims 12 to 18. 20

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