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(54) **A shower-head holder adapter**

(57) A shower-head holder adapter (10), preferably for a shower head riser (20) or other bar element, comprises a shower-head holder engagement element (12)

and a shower-accessory support element (14) for supporting a showering accessory other than or in addition to a shower head. The engagement element (12) is shaped to be receivable in a shower-head holder (20).

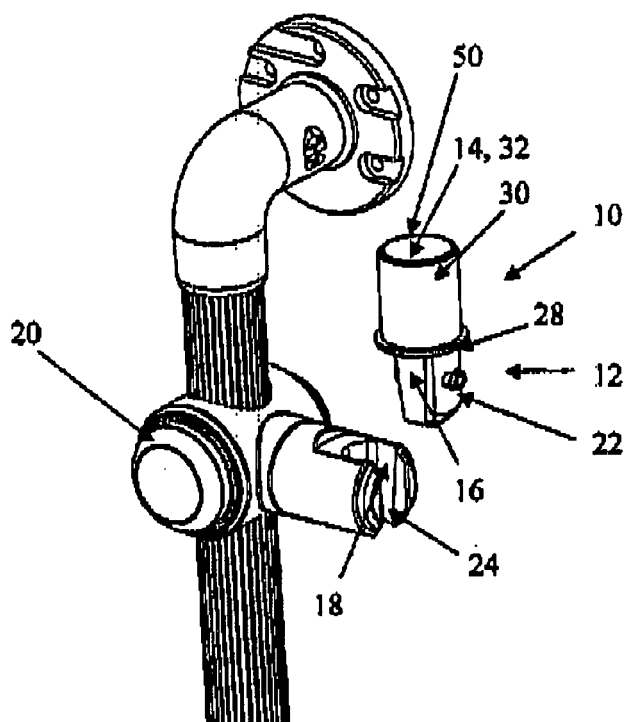


FIG. 3

Description

[0001] The present invention relates to an adapter for a shower-head holder or other bar element within a shower, and more particularly but not exclusively to an adapter for an adjustable shower-head riser.

[0002] Shower-head risers are well known and are slidably movable on riser rails. A riser is particularly advantageous when a showering area is used by people of varying heights, such as a family. It is then a simple matter to simply position the shower head at an optimum height for the present user.

[0003] A riser and rail is also beneficial for the elderly and infirm, due to the adjustable height of the riser. This thus allows a person to, for example, sit or stand whilst showering.

[0004] The selective positioning of a shower head in a showering area is thus well catered for. However, especially for an infirm or elderly user, the selective positioning of a showering accessory holder or platform is not particularly well provided for. Soap dish platforms, for example, are known and slide on the riser rail, typically beneath the shower-head riser. However, such a soap dish platform cannot be selectively positioned on the riser rail since there is no clamping mechanism, it simply rests at the bottom bracket of the riser rail. This can make reaching the platform difficult for the user. Furthermore, if the platform is provided on a hand rail instead of a shower-head riser rail, which may be located more conveniently for an infirm or elderly user, the platform again simply rests at the lowermost extent of the hand rail.

[0005] The present invention seeks to provide a solution.

[0006] According to a first aspect of the invention, there is provided a shower-head holder adapter comprising a shower-head holder engagement element and a shower-accessory support element for supporting a showering accessory other than or in addition to a shower head, the engagement element being shaped to be receivable in a shower-head holder.

[0007] Preferably, the engagement element includes a tapered portion for a wedge-fit with the shower-head holder.

[0008] Furthermore, the engagement element may include a key which is locatable in a slot of the shower-head holder.

[0009] The engagement element may include a cantilever arm, a distal free end of the cantilever arm being engagable with the shower-head holder. In this case, the cantilever arm may include a projection which projects in an outwards direction from the engagement element, the projection being provided at or adjacent to the distal free end of the cantilever arm.

[0010] Preferably, the support element and the engagement element are coaxial.

[0011] Beneficially, the support element preferably includes a boss which extends from the engagement element.

[0012] Advantageously, the support element may include a platform element. The platform element may preferably be removable. The separate platform element may extend from a free end of the support element. Additionally, part of the platform element may be slidably receivable in the free end of the support element. Alternatively, the support element may extend through the separate platform element. In this latter case, the platform element may preferably be slidably receivable on the support element.

[0013] The platform element may include a shower-head opening adapted to hold a shower head.

[0014] Preferably, the support element includes an outwardly extending flange at the engagement element.

[0015] Furthermore, the adaptor may further comprise at least one hook for holding a further showering accessory. In this case, the said at least one hook projects from the engagement element.

[0016] According to a second aspect of the invention, there is provided a shower-head holder for holding a shower head, in combination with a shower-head holder adapter according to the first aspect of the invention.

[0017] Preferably, the engagement element of the adapter is shaped to complementarily fit a ferrule holder element of the holder.

[0018] Furthermore, the support element preferably supports a showering accessory other than a shower head.

[0019] The shower-head holder is preferably an adjustable riser.

[0020] The holder may be provided on a bar element, such as a hand rail.

[0021] The invention will now be more particularly described, by way of example only, with reference to the accompanying drawings, in which :

Figure 1 shows part of a riser rail with a shower-head riser, adapter according to the first aspect of the invention, and two showering accessory platforms supported by the adapter;

Figure 2 is a side elevational view of the assembly shown in Figure 1;

Figure 3 shows the adaptor removed from the riser, without the platforms for clarity;

Figure 4 shows the adaptor received in the riser;

Figure 5 is an underside view of one of the platforms; and

Figure 6 is an underside view of the other of the platforms.

[0022] Referring to the drawings, there is shown a shower-head holder adapter 10 which comprises an engagement element 12 and a support element 14. The

engagement element 12 includes a tapered portion 16 which is shaped and dimensioned to be removably receivable in a ferrule holder element 18 of a shower head riser 20. The ferrule holder element 18 normally receives a ferrule of a shower head as a removable sliding taper fit, and may be angularly adjustable in one or two dimensions relative to the rest of the riser 20, or may be static.

[0023] The engagement element 12 also includes a key 22, preferably in the form of an elongate spine, which projects from a front side of the engagement element 12. The key 22 extends along the entire or substantially entire longitudinal extent of the tapered portion 16, and has a width which provides a complementary fit in a forward facing gap or slot 24 of the ferrule holder element 18.

[0024] Optionally, a hook 26 may be provided on the key 22 to project from the engagement element 12. This conveniently allows a user to hang a showering accessory, such as a soap-on-a-rope or shower gel, therefrom.

[0025] The engagement element 12 also preferably includes a detent or biasing device (not shown) for locking the adapter 10 to the ferrule holder element 18, or for compensating for any play between the tapered portion 16 and the ferrule holder element 18.

[0026] The detent / biasing device includes a cantilever arm which extends from its proximal fixed end in a direction away from the support element 14. A distal free end of the cantilever arm is spaced from an end of the engagement element 12 which is remote from the support element 14. The cantilever arm tapers slightly from its proximal fixed end to the distal free end. Preferably, a projection or protuberance extends outwardly at or adjacent to the distal free end of the cantilever arm.

[0027] Some ferrule holder elements 18 have an opening or recess in a rear surface opposite the gap or slot 24. In this case, the detent engages with this opening or recess when the engagement element 12 is slidably inserted into the ferrule holder element 18. The detent thus prevents the adapter 10 from being unintentionally withdrawn or dislodged from the ferrule holder element 18, particularly during use.

[0028] In the event that the ferrule holder element 18 does not include an opening or recess, the cantilever arm and protuberance act as the biasing device, instead of the detent, and bias the engagement element 12 towards a front surface of the ferrule holder element 18, thus compensating for a slight mismatch in sizes and taking up any play.

[0029] The support element 14 is contiguous and coaxial with the engagement element 12, extending from the larger diameter end of the tapered portion 16, and includes an outwardly projecting continuous flange 28 and a boss 30. The boss 30 is generally cylindrical, but may be frusto-conical, and preferably has an opening or recess 32 at its free end remote from the engagement element 12.

[0030] In this embodiment, the adapter 10 also comprises two separate shower-accessory platform elements 34, 36. Typically, a lower one of the platform elements

34 is adapted to hold soap or a flatter showering accessory, and an upper one of the platform elements 36 can hold, for example, a bottle of shampoo, conditioner, or gel. The lower platform element 34 includes a slightly dished platform portion 38 with an opening 40 at one edge dimensioned to receive the boss 30 as a close slidable fit. The lower platform element 34 can thus be dropped onto the boss 30 and sits on the flange 28. Although keying of the lower platform element 34 is possible, in this embodiment, no keying is provided so that the lower platform element 34 is rotatable around the boss 30 to alter its orientation.

[0031] The upper platform element 36 has a substantially flat or planar platform portion 42, and a spigot 44 which extends from a lower surface of the platform portion 42. In this case, the spigot 44 is centrally or substantially centrally placed, but it may be offset. The spigot 44 is cylindrical or substantially cylindrical and includes an outer surface which is stepped partway therealong to provide a shoulder 46. An outer diameter of the distal portion 48 of the spigot 44 is dimensioned to be receivable as a close sliding fit in the opening or recess 32 of the boss 30 of the support element 14. The shoulder 46 abuts an upper edge 50 of the boss 30, and the proximal portion 52 of the spigot 44 spaces the platform portion 38 from the boss 30.

[0032] In use, therefore, a second shower-head riser 20 can be applied to either the existing riser rail or a hand rail positioned at any angle from horizontal up to and including the vertical, within or adjacent to the shower area and due to its dedicated clamping mechanism, can be exactly adjusted to suit a user's showering position. The adapter 10, instead of the shower head, is then located in the ferrule holder element 18. One or both platform elements 34, 36 can be utilised on the support element 14 of the adapter 10, dependent on necessity.

[0033] Although the adapter is ideally suited for a riser, it is suitable for use with any shower head holder having a ferrule holder element. For example, the shower head holder may be static and either permanently fastened to a surface of the showering area, such as by screws, or releasably attached, such as by a sucker.

[0034] Such an adaptor may also be beneficially installed on a horizontal rail such as a grab-bar located in the bathing and showering area and may be slidably arranged to be movable along the bar in a manner similar to that described for moving vertically along the riser bar.

[0035] Although the platform elements in the above-described embodiment are separate of the support element, the support element may be integrally formed as one-piece with one or more platform elements.

[0036] The flange of the support element is optional, particularly in the case where the support element is tapered, thereby allowing the lower platform element to form a wedging fit on the boss.

[0037] Although the engagement element and the support element are coaxial or substantially coaxial, the support element could be axially offset from the engagement

element.

[0038] The engagement element and/or the support element may be hollow or solid.

[0039] The adapter is preferably moulded plastics, but it is feasible that the adapter could be formed of metal.

[0040] The detent or biasing device is also optional, since the engagement element may be formed as a tight fit in the ferrule holder element, thus making unintentional extraction unlikely.

[0041] Although the engagement element includes a tapered portion, this engagement portion is preferably shaped to be a complementary fit with the ferrule holder element. As such, the engagement portion may be straight instead of tapered.

[0042] The adapter is intended to provide options for supporting, either via standing or hanging, showering accessories other than the shower head. It is intended that the shower head will be supported by its own dedicated holder which, typically, will be spaced from the adapter. However, it is envisaged that the support element of the adapter can include a shower head holder in addition to the platform(s). For example, a dedicated shower head holder, such as an extending arm, can be provided as a close sliding fit on the boss of the support element.

[0043] Alternatively, an additional, preferably tapered, shower-head opening 54 in one side of a platform element 34, 36 may be beneficially provided thus allowing the shower head to be located adjacent to the shower accessories which may be present on said platforms, for instance after use, to hang the shower head and associated flexible connecting hose away from the shower or bathing area below. Similar openings may also be provided to entrap the flexible hose, allowing the shower head to be moved in use or to be positioned after use for storage whilst ensuring the hose is kept off the floor of the shower and thus complying with Water and or Building Regulations.

[0044] The hook mentioned above is entirely optional, and although provided on the engagement element, may alternatively or additionally be provided on the support element or periphery of a platform element. Furthermore, more than one hook may be provided.

[0045] It is thus possible to provide a shower-head holder adapter which is particularly, but not necessarily exclusively, suitable for use with a shower head riser. The use of the releasably clampable riser enables specific and reliable positioning of the adapter for the user, and thus the showering accessories that are thereby supportable. The adapter makes use of an off-the-shelf device to provide improvements for users, and in particular for infirm and elderly users who may have limited range of motion. By also making use of existing shower head holders, the adapter becomes cheaper to manufacture and installation becomes extremely straightforward and quick.

[0046] The embodiments described above are provided by way of examples only, and further modifications will be apparent to persons skilled in the art without de-

parting from the scope of the invention as defined by the appended claims.

5 Claims

1. A shower-head holder adapter (10) comprising a shower-head holder engagement element (12) and a shower-accessory support element (14) for supporting a showering accessory other than or in addition to a shower head, the engagement element (12) being shaped to be receivable in a shower-head holder (20).
2. A shower-head holder adapter as claimed in claim 1, wherein the engagement element (12) includes a tapered portion (16) for a wedge-fit with the shower-head holder (20).
3. A shower-head holder adapter as claimed in claim 1 or claim 2, wherein the engagement element (12) includes a key (22) which is locatable in a slot (24) of the shower-head holder (20).
4. A shower-head holder adapter as claimed in any one of the preceding claims, wherein the engagement element (12) includes a cantilever arm, a distal free end of the cantilever arm being engagable with the shower-head holder (20).
5. A shower-head holder adapter as claimed in any one of the preceding claims, wherein the support element (14) and the engagement element (12) are coaxial.
6. A shower-head holder adapter as claimed in any one of the preceding claims, wherein the support element (14) includes a platform element (34, 36).
7. A shower-head holder adapter as claimed in claim 6, wherein the platform element is removable.
8. A shower-head holder adapter as claimed in claim 6 or claim 7, wherein at least part of the platform element (36) is slidably receivable in or on the support element (14).
9. A shower-head holder adapter as claimed in any one of claims 6 to 8, wherein the platform element (34, 36) includes a shower-head opening (54) adapted to hold a shower head.
10. A shower-head holder adapter as claimed in any one of the preceding claims, further comprising at least one hook (26) for holding a further showering accessory.
11. A shower-head holder adapter as claimed in claim 10, wherein the said at least one hook (26) projects

from the engagement element (12).

- 12.** A shower-head holder (20) for holding a shower head, in combination with a shower-head holder adapter (10) as claimed in any one of the preceding claims. 5
- 13.** A combination as claimed in claim 12, wherein the engagement element (12) of the adapter (10) is shaped to complementarily fit a ferrule holder element (18) of the holder (20). 10
- 14.** A combination as claimed in claim 12 or claim 13, wherein the shower-head holder is provided on a hand rail, 15
- 15.** A combination as claimed in any one of claims 12 to 14, wherein the shower-head holder is an adjustable riser (20). 20

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FIG. 1

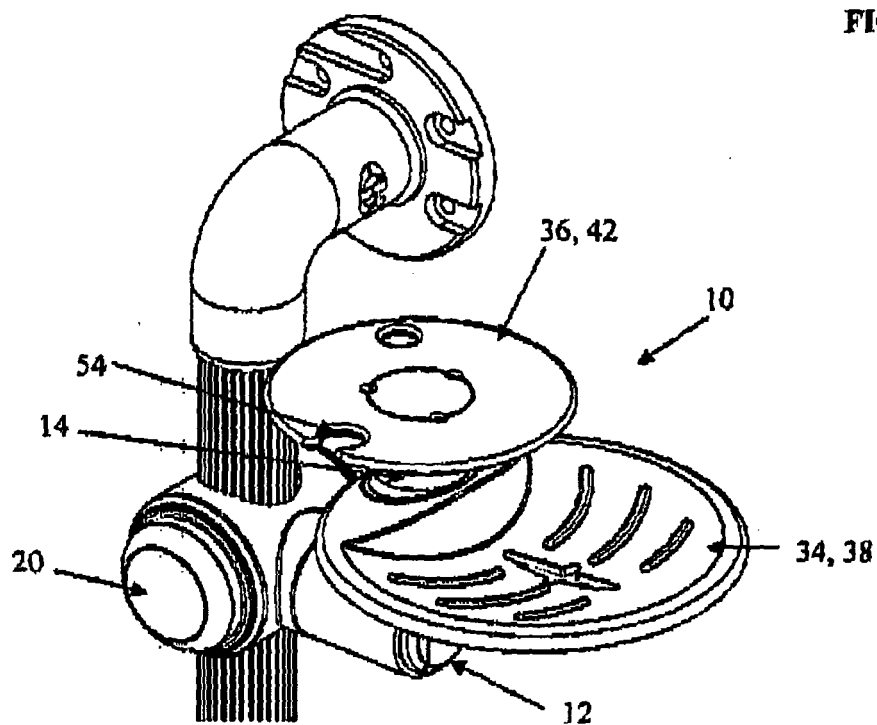
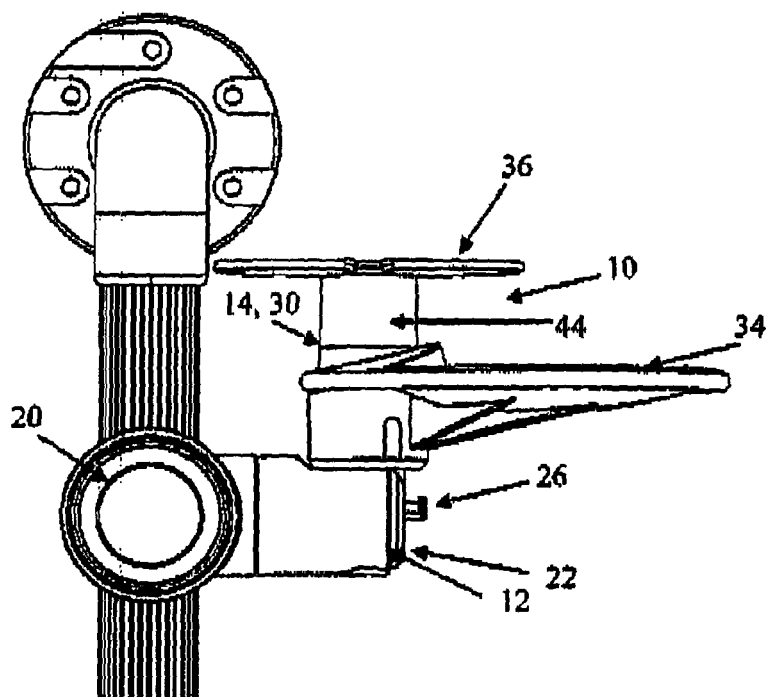


FIG. 2



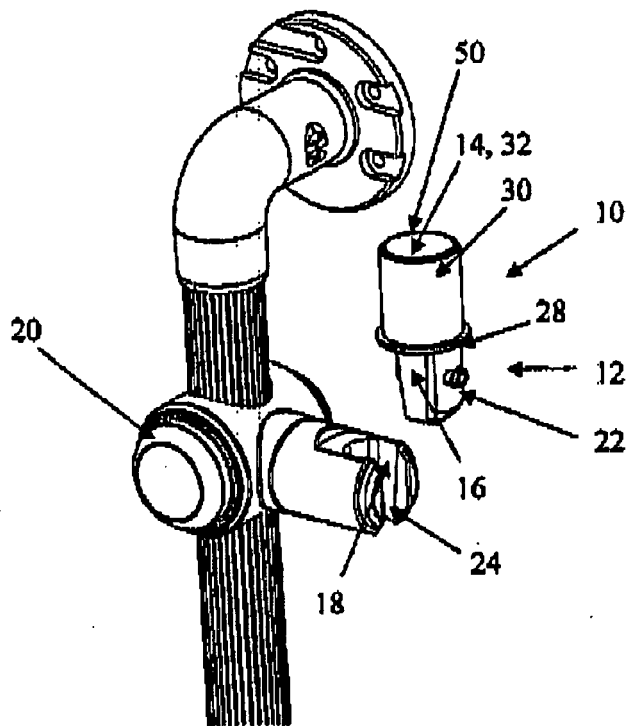


FIG. 3

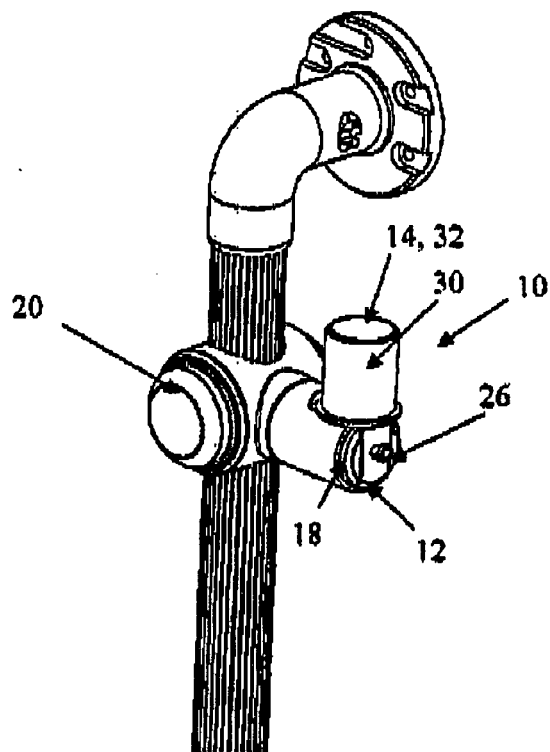


FIG. 4

FIG. 5

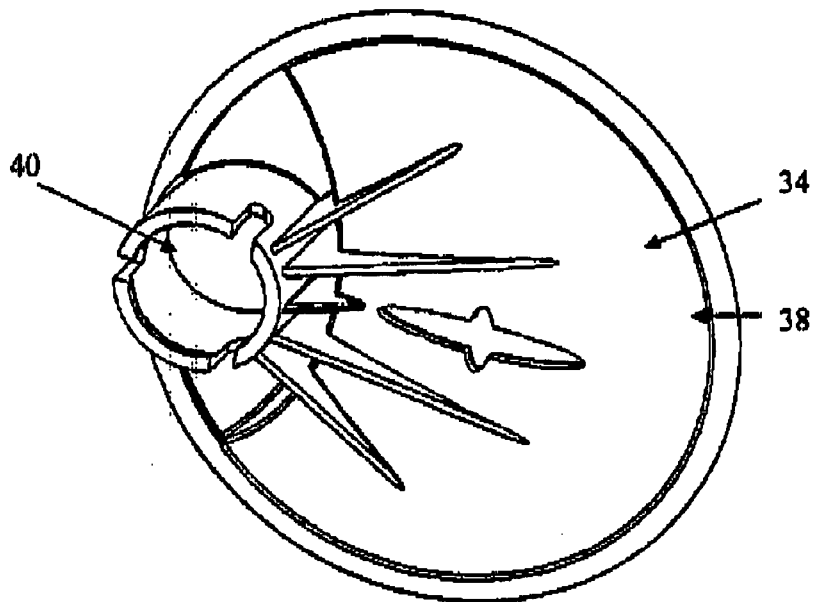
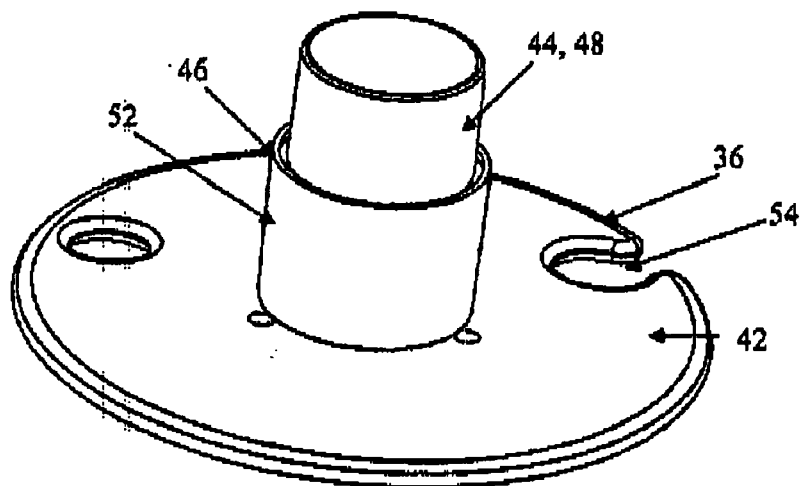


FIG. 6





EUROPEAN SEARCH REPORT

Application Number
EP 08 25 2022

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	DE 20 2005 015871 U1 (KUECHENMEISTER DIETER [DE]) 2 March 2006 (2006-03-02) * the whole document * -----	1-15	INV. E03C1/06 A47K5/00
			TECHNICAL FIELDS SEARCHED (IPC)
			E03C A47K
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 28 October 2008	Examiner Van Bost, Sonia
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

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