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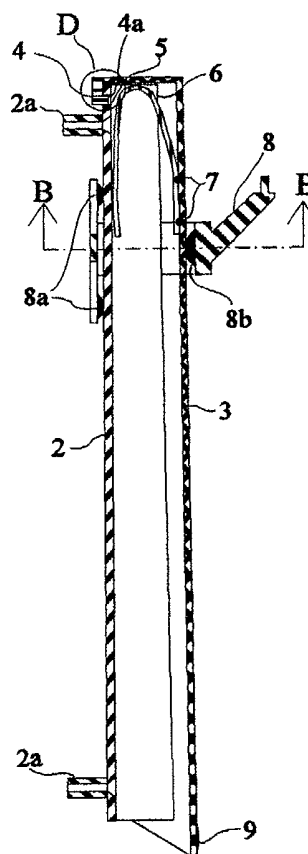
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(54) **Shower bar with showerhead support**

(57) The invention relates to a shower bar that exists of two each other enclosing profiles that are linked hinging to each other at their top ends en that by spring action are pushed outwards at the bottom end and whereby a showerhead support, that encloses both profiles of the shower bar precisely, can glide down as soon as the front profile is being pushed inwards at its bottom end against the spring action.



Doorsnede A-A

Fig-2

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Description

[0001] The invention refers to a shower bar that is made out of two profiles fitting over each other which are connected with a hinge at the top end in which are pushed outwards at the bottom end by means of an internal spring mechanism so that the showerhead support, that encloses the two profiles of the shower bar precisely, can glide down as soon as the front profile is being pushed in at the bottom end against the spring force.

[0002] Many shower bar mechanisms have a clamping device to anchor the showerhead at a certain height. In all these installations the showerhead support itself must be shifted in order to obtain the right height for showering. Especially short people, for example children, and people in a wheelchair who want to use the shower after it has been used by a grown up person with normal posture, can experience this as a problem.

[0003] If there is not made use of a clamping device but of a showerhead support fixed by resistance, then the showerhead support will be pulled down via the hose. Of course this is damaging for the installation because the shower hose is not fabricated for this purpose.

[0004] The purpose of the invention is to realise a combination of shower bar and showerhead support that solves the abovementioned problems. The invention will hereby be circumscribed using the following figures:

Figure 1 (Fig-1) shows a number of views of the shower bar with showerhead support in which in figure 1a a side view mounted against the wall, in figure 1b a frontal view and in figure 1c a view of the whole from the backside.

Figure 2 shows a section through the length A-A of the shower bar with head support.

Figure 3 shows a cross section B-B of the shower bar with head support.

Figure 4 shows a detail of the topside of the shower bar that is encircled in figure 3.

[0005] The shower bar (1) is put together of two profiles, a back profile (2) and a front profile (3) that precisely encloses the back profile (2) at its sides. The back profile (2) is fixed to the wall of the shower cabinet with two distance bushes (2a).

[0006] The top side of the front profile (3) is closed to prevent water coming in. Also the front profile (3) comes with a lug (4) over the back profile (2) in order that the front profile (3) hangs over the back profile and can not move away in the front direction.

[0007] The lug (4) has a projection (4a) that fits in a hole (5) in the back profile (2). Figure 4 shows this in detail.

[0008] In the top of the space between the back profile (2) and the front profile (3) a leaf spring (6) is located which at location (7) is fixed to the front profile (3) for

example with a number of welding spots.

[0009] The leaf spring (6) pushes the front profile (3) outwards around a hinge point at the top end of the two profiles (2 and 3) by means of lug (4) and projection (4a). The profile (3) will by means of this spring force move outwards at the bottom side. This movement is inhibited by the showerhead support (8) that has a usual shape at the front side wherein or whereupon a showerhead can be hung, and that fits well around the front profile (3). The showerhead support has four sliding points (8a) at its backside that connect to the backside of the back profile (2) and on the inner side of the front a gliding plate or roll (8b) that connects to the front profile (3). The positioning of the gliding points (8a) is such that the front profile (3) tapers out a little towards the bottom end because of the force of the spring (6).

[0010] The sides of the back profile (2) do widen downwards slightly to prevent space emerging at the sides between the front profile (3) and the back profile (2) when the head support (8) is located at its highest position and thus the front profile (3) has the most outward position at its bottom end.

[0011] By pushing at the marked point (9) the tapered position of the front profile (3) in regard to the back profile (2) will be diminished and the showerhead support (8) can glide downwards. The harder one pushes the further the head support (8) comes down.

[0012] The uplifting of the showerhead support (8) for longer users of the shower can be done in the classic way by hand whereupon the support (8) will automatically rest fixed on the chosen height because of the spring force and the tapered position of both profiles (2 and 3), or because of the gliding resistance that is caused by the spring (6) on the gliding points (8a).

[0013] The outer positions of the showerhead support are limited by the distance bushes (2a) through which the back profile (2) is mounted to the wall.

[0014] Eventual removal of scale or dirt between the profiles can be done in a simple way.

[0015] Hereto the front profile (3) will be pushed inwards at the top end against the pressure of the spring (6), causing the projection (4a) to come out of the opening (5), whereupon the front profile (3) can be lifted out completely with the spring (6).

[0016] The shower bar with showerhead support according to the invention is not limited to the examples of construction as depicted in the figures and text before.

[0017] Several variations are possible within the scope of the invention.

[0018] So, width and depth of the profiles, as well as the choice of materials and or finishing of the various components can be chosen freely to the wishes of the designer.

[0019] In stead of the leaf spring (6) an other spring element can be chosen, eventually fixed to the back profile (2), if the mounting of the top distance tube (2a) remains accessible. Also possible is the mounting of an additional spring between the profiles (2 and 3) for ex-

ample at the height of the pressing point (9) in the form of a compressible rubber roll or cone or such that is fixed to the back profile (2) and by which the clamping force on the showerhead support (8) in the lowest positions can be enhanced

[0020] The invention is not limited in use in other situations or applications.

4. Shower bar with showerhead support according to claims 1, 2 or 3, with the characteristic that the spring action between back profile and front profile is enhanced by an auxiliary spring mechanism that is installed elsewhere between the back profile and the front profile and that does not hinder the freedom of movement to lift out the front profile.

Claims

1. Shower bar with showerhead support in which the showerhead support can be moved downwards by means of a pressure applied to the bottom end of the shower bar for the convenience of short users of the shower, or invalidated users in a wheelchair, with the characteristic that the shower bar is assembled out of two each other sideways enclosing profiles that can hinge over each other at the top end, with the back profile being attached to the wall and the front profile, by means of a spring mechanism between the back profile and the front profile attached to the front profile, being able to move outwards at its bottom end in order that a downwards tapered position between the two profiles is achieved, what position is limited by the showerhead support which encompasses both profiles and whereby the showerhead support is fixed in the favoured position by the pressure that is exerted through the spring mechanism between the two profiles on the points of application of the showerhead support on the two profiles, and whereby the position of the showerhead support can be adjusted downwards by pressing on the bottom end of the front profile, causing a diminishing of the tapered position of the front profile with regard to the back profile causing the showerhead support to slide to a lower position, where after releasing the pressing on the front profile this position again will be stabilised by the pressure exerted by the spring mechanism between the two profiles.
2. Shower bar with showerhead support according to claim 1, with the characteristic that the showerhead support can be displaced in an upward direction whereby the favoured position is maintained by the spring action between front profile and back profile.
3. Shower bar with showerhead support according to claim 1 or 2, with the characteristic that the front profile stays vertically in the just position through a lug with projection that fits in a notch in the back profile and whereby the front profile can be lifted out through exerting some force backwards against the spring action on the front profile so that the projection on the lug at the top end of the front profile will be pushed out of the notch in the back profile.

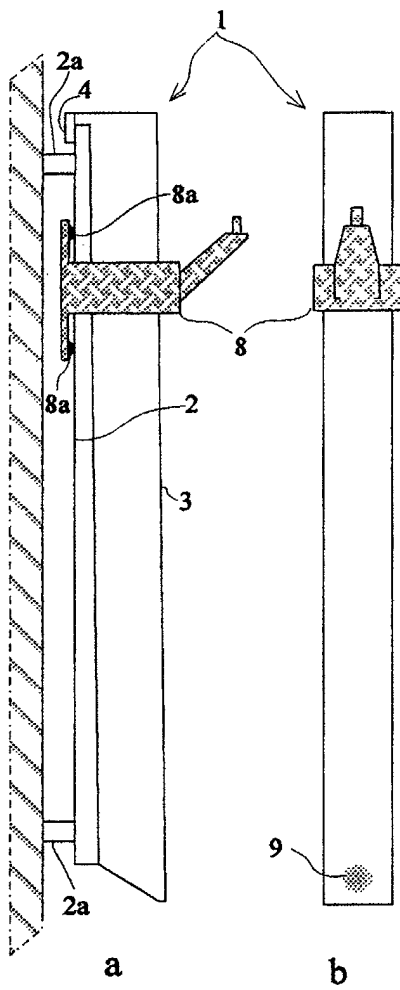
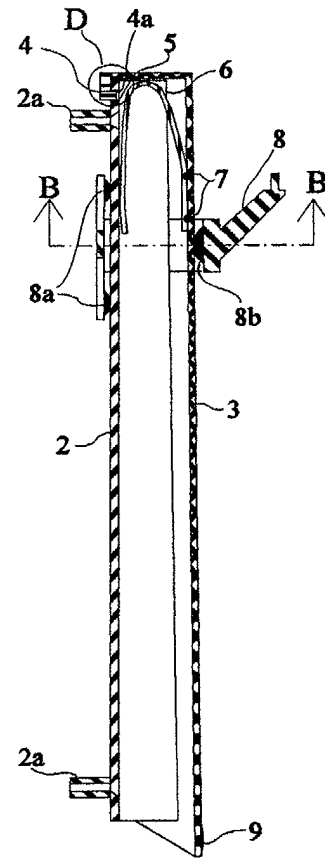
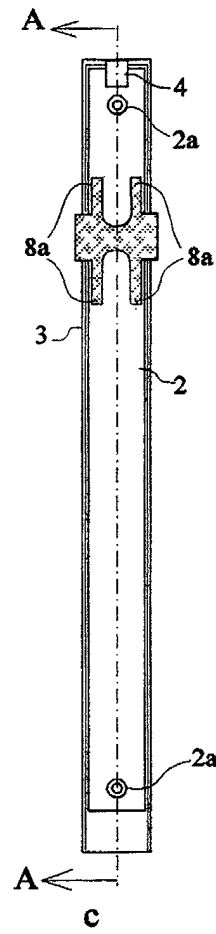
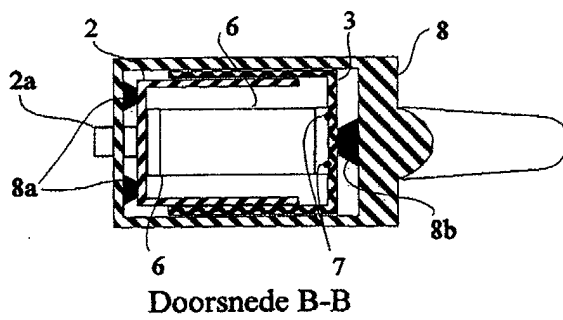


Fig-1



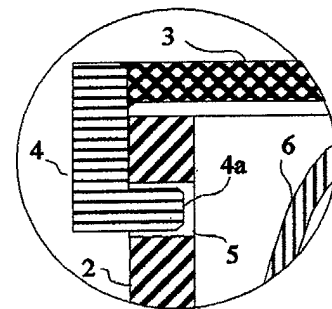
Doorsnede A-A

Fig-2



Doorsnede B-B

Fig-3



Detail D

Fig-4



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EUROPEAN SEARCH REPORT

Application Number
EP 02 08 0036

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
A	US 3 933 329 A (GRANGER MAURICE) 20 January 1976 (1976-01-20) * the whole document *	1	E03C1/06
A	PATENT ABSTRACTS OF JAPAN vol. 1996, no. 03, 29 March 1996 (1996-03-29) & JP 07 292731 A (SEKISUI CHEM CO LTD), 7 November 1995 (1995-11-07) * abstract *	1	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			E03C
The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
MUNICH		5 March 2003	Isailovski, M
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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 02 08 0036

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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05-03-2003

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82