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54 Shower cubicle with control centralising column.

57 A shower cubicle of the type comprising a shower base (12), a peripheral frame (16, 18) positioned along at least two contiguous sides of the shower base (12) and panels (17, 18) defining lateral walls at least one of which defines an entrance door, and at least one water sprinkler (24) connected to cold and hot water pipes (21, 22) through a mixing unit (23), or through separate taps, in which the cubicle frame comprises a central column (20) housing the hot and cold water pipes (21, 22) is provided at the corner between said walls (17, 18), said column (20) also serving as a support for the mixing unit or separate taps (23), and in which the water sprinkler (24) is fixed to the cubicle frame (16, 18, 20) and is directed inwards the cubicle against the walls (10, 11) of the room in which the shower is installed.

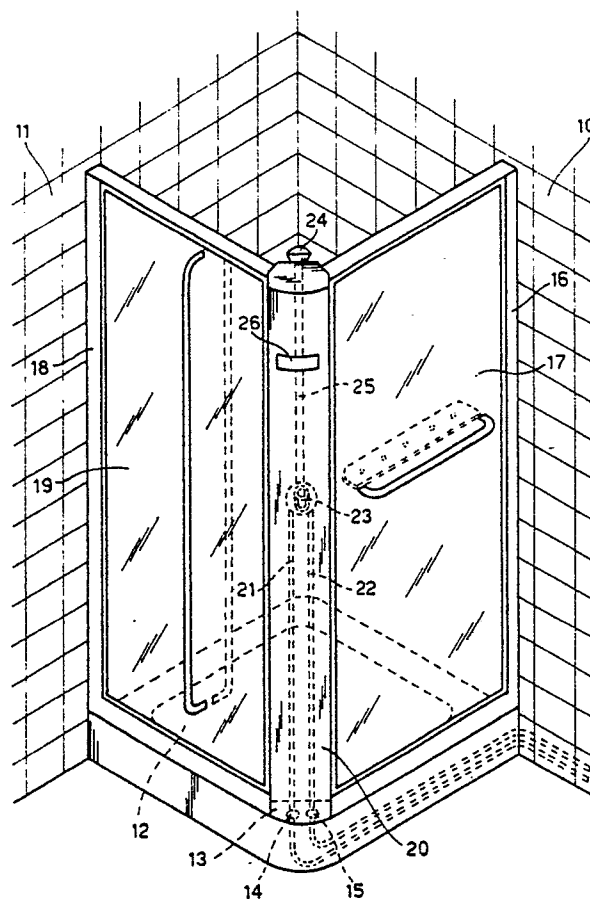


Fig. 1

EP 0 348 653 A1

SHOWER CUBICLE WITH CONTROL CENTRALISING COLUMN

This invention refers to shower cubicle of the type comprising a shower base surrounded, on at least two contiguous sides, by a peripheral frame having lateral walls one of which defines an entrance door, and in which a water-jet sprinkler is connected, through a mixer unit or separate taps, to the pipes supplying cold and hot water.

As is known, in a traditional shower cubicle, the shower base is usually arranged with one or two contiguous sides against fixed walls of the room in which the shower cubicle is installed, after which on the remaining sides of the shower base is erected a framework and panels defining side walls at least one of which constitutes the entrance door to the cubicle.

In traditional shower cubicles all the internal accessories such as the water sprinkler, the mixing unit, or the hot and cold water taps, with respective water supply pipes, must be suitably pre-located in the brick walls before the shower cubicle is installed. As a result any later work, for example the replacement of the sprinkler or of the mixing unit, or any repairs to the water-supply pipes, necessitates breaking the brick walls or the ceramic tile surfacing, with the risk of damaging the shower base beneath or the glass walls of the cubicle.

Furthermore, the sprinkler delivering the mixed water is generally directed towards the walls of the cubicle which must therefore be appropriately sealed in order to prevent any water leaking out.

The mixed water sprinkler, like other accessories inside the cubicle, once installed can no longer be removed or replaced without causing damage to the brick walls.

Accordingly, an object of this invention is to provide a shower cubicle having a new and different structure compared with shower cubicles currently in use, by means of which it is possible to have a centralised site for the water-supply pipes, for the various control means and for the other cubicle accessories, inside the shower cubicle frame.

Another object of this invention is to provide a shower cubicle, as defined above, in which the mixed water sprinkler is mounted on the shower cubicle structure and is positioned so that the water jet is facing in a direction which is well away from the side walls of the cubicle.

A further object of this invention is to provide a shower cubicle as previously defined, which can be provided with one or more water sprinklers, variously positioned and directed with respect to one another, as well as with accessories, some of which can be made accessible both from the inside and from the outside of the shower cubicle.

In particular, according to the general principles of this invention, the frame of the shower cubicle is provided in at least one of its corners with a hollow upright column in which are housed all the control devices for supply of the hot water, the cold water, and the mixed water, as are also other accessories, such as soap shelves, drawers, receptacle cavities possibly closed off by panels or similar means.

The central positioning of the pipes and of the control devices on the upright or corner column also makes it possible to have certain accessories on the outside of the shower cubicle, such as a display for pre-shower checking of the temperature of the mixed water, or an external stop cock, or a duplicate set of control levers for the mixing unit.

Alternatively, the pipe or pipes for the mixed water can be extended along an upper band of one or both of the side walls contiguous with the central column, so as to have one or more additional sprinklers on these bands of the frame, either fixed or movably positioned along said bands.

Use of the central column offers an advantage in that a sprinkler for the mixed water may be positioned close to the shower base, with the jet directed as preferred.

These and other characteristics of a shower cubicle according to this invention will be made more apparent from the description hereunder, referring to the figures in the appended drawings, in which:

Fig. 1 is a perspective view of a corner shower cubicle, according to the invention;

Fig. 2 is a view on the inward side of a first embodiment of the central upright;

Fig. 3 is a view on the inward side of a second embodiment of the central upright;

Fig. 4 is a perspective view of a second embodiment of the shower cubicle according to the invention;

Fig. 5 is a view on the inward side of an upper band of a lateral wall of the shower cubicle in figure 4.

Figure 1 shows a shower cubicle positioned between two brick walls 10 and 11 of a room in which the shower cubicle has been installed; said brick walls 10 and 11 appropriately provided with a tiled or similar surfacing, are entirely bare of any projecting parts or shower cubicle accessories, which have all been incorporated in the cubicle frame supporting the glass or lateral enclosing panels.

As shown in figure 1 the shower cubicle accordingly comprises a shower base 12 which has been suitably modified so as to have along its

upper edge a flat supporting surface 13 in at least one of its corners, in which two holes or openings 14 and 15 have been made providing a passage for the cold and hot water pipes 21, 22 as described hereunder.

The shower cubicle also comprises a peripheral frame to support glass or other walls, which in the case under consideration comprises a first rectangular frame portion 16 provided with a panel 17 which encloses the shower cubicle on one side and a second rectangular frame portion 18 provided with a door 19 of any suitable type, for example leaf type or folding, with respective handles. The two frame portions 16 and 18 of the cubicle are fixed by means of screws or other conventional fastening means to the walls 10 and 11 of the room and also in appropriate recesses in a central column 20 which extends upwards from the corner surface 13 of the above-mentioned shower base.

The central column 20 is hollow inside so as to house the cold water pipes 21 and the hot water pipes 22, which are also in part located beneath the shower base as indicated and which emerge from the above-mentioned holes 14 and 15.

The cold and hot water pipes 21 and 22 lead to a mixing unit 23 or to respective taps mounted on the central column 20 whose control parts are accessible both from the outside and, optionally, from the outside of the shower cubicle.

Above the mixing unit 23 a digital or other type of display may be provided for a thermostat that controls the temperature of the mixed water fed by the mixing unit 23 to at least one sprinkler 24, via a pipe 25 extending up inside the central column 20.

The sensor of the mixed water temperature control thermostat can be sited inside the sprinkler 24 or in any other position along the pipe 25, any electrical leads being positioned in a specially protected channel inside the central column 20.

As shown in figure 1 and in the detail of figure 2, the sprinkler 24 of the mixed water, in the case under consideration, is situated in front of the central column 20 and at its upper end, being so positioned that the water jet is directed inwards to the shower cubicle, namely towards the brick walls 10 and 11 of the room in which the shower cubicle is installed; in this way the water jet does not directly strike the peripheral walls of the cubicle defined by the lateral enclosing frame, so preventing possible water leakage from accidentally seeping outside.

The siting of the sprinkler 24 on the central column 20 or in any suitable position on the peripheral frame of the cubicle, is made possible by the use of the central upright 20 as will be explained hereunder with reference to figure 4. By virtue of the central column 20 it is also possible to have other accessory or functional parts, as for example

soap niches or receptacle cavities 27, or an additional sprinkler 28 located low down or close to the shower base 12, for example in the form of a linear sprinkler with the water outlet holes pointed or able to be pointed in a pre-set direction.

The central column 20 can be variously constructed or constituted according to specific needs. In particular figure 3 shows a second embodiment of the central column 20; in this case an upper sprinkler 29 is mounted on a support member in such a way that it can slide along a tubular support bar 30 so that its height is adjustable, and it is connected by a house or flexible tube 31 to the pipes 25 supplying the mixed water located inside the central column.

In the case of figure 3 the second water sprinkler has been eliminated and in its place has been provided, for example, a draw 31 and a receptacle cavity closed by a wing 32. Reference number 33 indicates other receptacle cavities which in this case are sited beneath the mixing unit 23. Obviously the structure of the central column 20 could differ with respect to what has been shown without prejudicing the possibility of centralising all controls as well as the siting of all the shower accessories.

Figure 4 shows a second embodiment of a shower cubicle according to the invention. The shower cubicle in figure 4 maintains essentially the same characteristics as the shower cubicle in figure 1, with the centralising of the controls and of the accessories in the central column 20 which rests directly on the corner surface 13 of the shower base.

In the case in figure 4, unlike in the previous case, one or both sides of the cubicle frame are provided with a broad upper band 34 on each of which is positioned a sprinkler 35 that can be both fixed and can slide, either on a support bar 36 or in any other way, along the band 34.

In place of or as an alternative to the sprinkler 35, one band or each band 34 of the frame can have a linear sprinkler 37 in the form of a horizontally positioned perforated pipe, with the jets pointed downwards. The perforated pipe 37 and the flexible tube 35' of the sprinkler 35, are connected to a junction cock 38 which enables one or the other sprinkler to be supplied. This junction cock 38 can be made accessible both from the inside and the outside of the shower cubicle. In the case in which the mixing unit 23 is accessible only from the inside of the central column 20, an external stop cock 39 can be provided on the column for cutting off the flow of mixed water.

From what has been said and shown in the appended drawings it will be accordingly understood that there is provided a shower cubicle structure of completely new design, forming a combination with a special shower base, that allows cen-

tralisation of all the controls in a corner column of the frame, said column being equipped on the inside with all the accessories necessary for washing. It is intended that what has been said and shown with reference to the appended drawings has been presented purely by way of example and does not limit the new shower cubicle as claimed.

Claims

1. Shower cubicle comprising a shower base (12) and a peripheral frame (16, 18) designed to surround at least two contiguous sides of said base (12) and at least one mixed-water sprinkler (24, 28, 35) connected, via a mixing unit or separate taps (23), to pipes (21, 22) supplying hot and cold water, characterised by the fact that the frame (16, 18) of the shower cubicle, in at least one corner (13) of the shower base (12) comprises a central column (20) housing the pipes (21, 22, 25) supplying hot and cold water, as well as the mixed water, and supporting the mixing unit or the control taps (23), and by the fact that the sprinkler (24, 28, 35) is mounted on the cubicle frame (16, 18, 20) and is directed towards the inside of the cubicle.

2. Shower cubicle as claimed in claim 1, characterised by the fact that the central column (20) has receptacle cavities (27, 31, 32, 33) accessible from its upward side.

3. Shower cubicle as claimed in claim 1, characterised by the fact that of comprising at least one water jet sprinkler (24, 28, 29) mounted on the central column (20).

4. Shower cubicle as claimed in claim 3, characterised by the fact that said sprinkler (24) is fixed in front of and at the upper end of the column (20).

5. Shower cubicle as claimed in claim 3, characterised by the fact that the sprinkler (29) is provided on support means slidably movable on a support bar (30) to adjust the height of the sprinkler (29).

6. Shower box as claimed in claim 1, characterised by the fact that the central column (20) comprises at least a second sprinkler (28) near to the shower base (12).

7. Shower cubicle as claimed in claim 1, characterised by the fact that at least one of the frame wall comprises a broad upper band (34) which is joined to the central column (20), and by the fact that said band (34) is provided with at least one water sprinkler (35) directed towards the interior of the shower cubicle.

8. Shower cubicle as claimed in claim 7, characterised by the fact that the upper band (34), of the frame (16, 18) comprises a first sprinkler (35) to provide a concentrated jet, and a second linear

sprinkler (37) positioned longitudinally on said band (34) said sprinklers (35, 37) being connected to the mixed water pipe (25) through a junction tap (38).

9. Shower cubicle as claimed in claim 1, characterised by the fact that the central column (20) comprises a thermometer (26) for indicating the temperature of the mixed water.

10. Shower cubicle as claimed in claim 9, characterised by the fact that the display of the thermometer (26) indicating the temperature of the mixed water is located on the outside of the central column (20).

11. Shower cubicle as claimed in claim 1, characterised by the fact that a tap (39) for cutting off the flow of mixed water is provided on the outside of the central column (20).

12. Shower cubicle as claimed in claim 1, characterised by the fact that a control member for the mixing unit (23) or for the hot and cold water taps is located on the outside of the central column (20).

13. Shower cubicle as claimed in claim 1, characterised by the fact that the shower base (12) in at least one of its corners has a flat supporting surface (13) for the central column (20) with said surface (13) having holes (14, 15) allowing the passage of the hot and/or cold water pipes (21, 22).

14. Shower cubicle as claimed in claim 13, characterised by the fact that said hot and cold water pipes (21, 22) are partially housed inside said shower base (12).

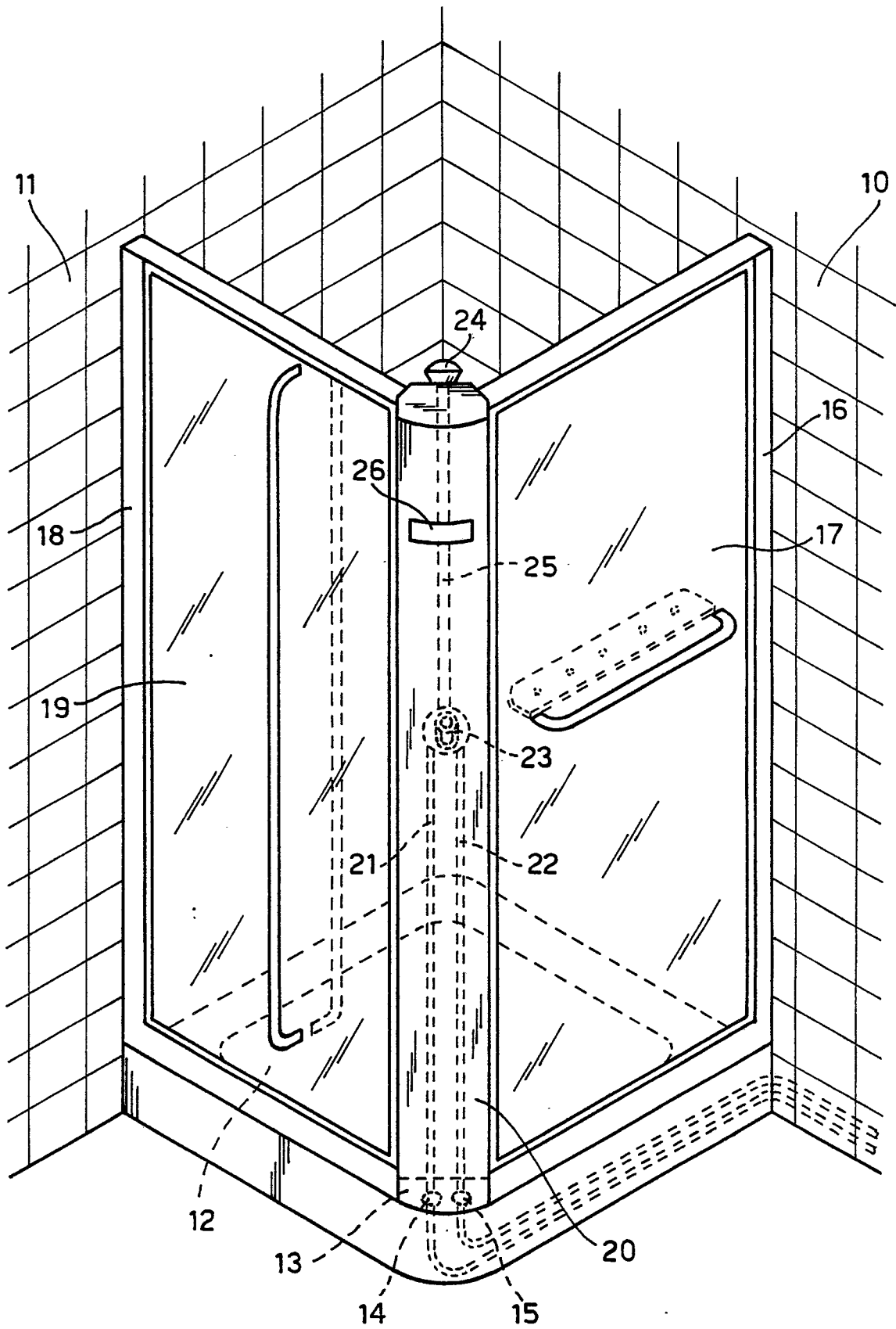


Fig. 1

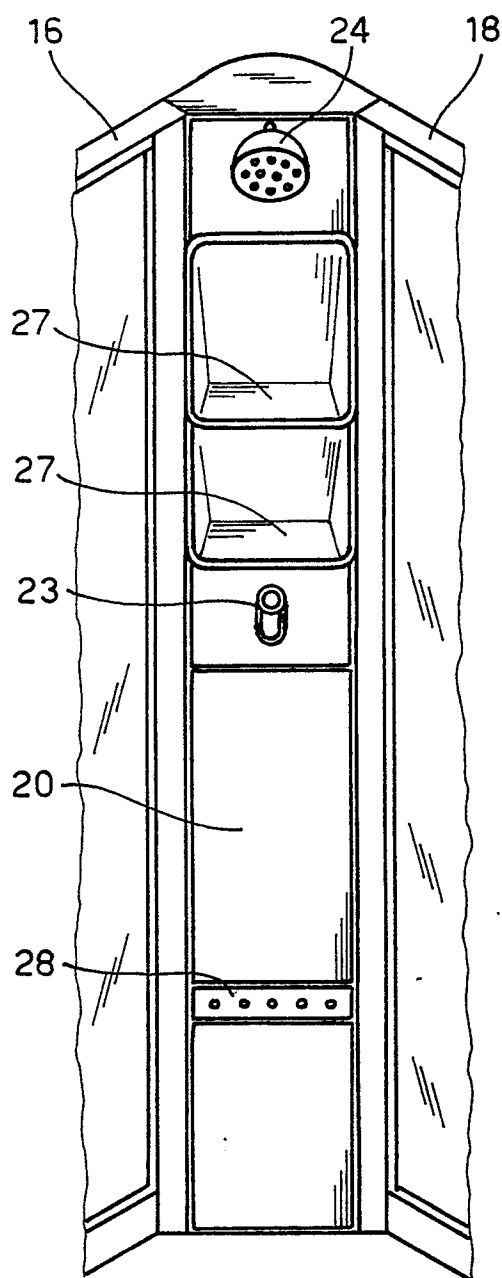


Fig. 2

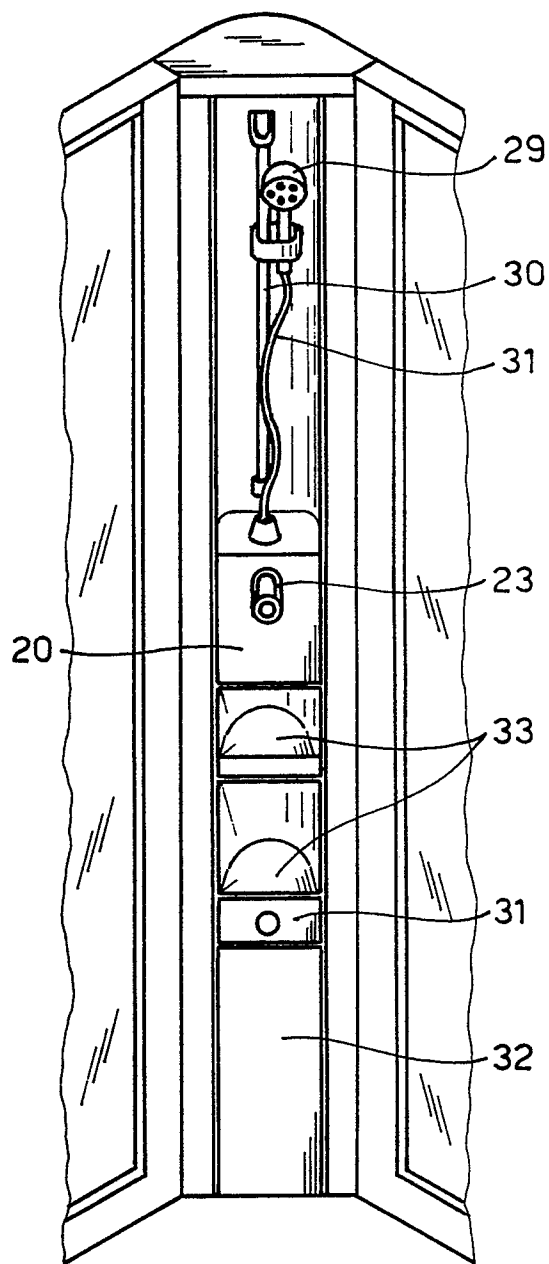


Fig. 3

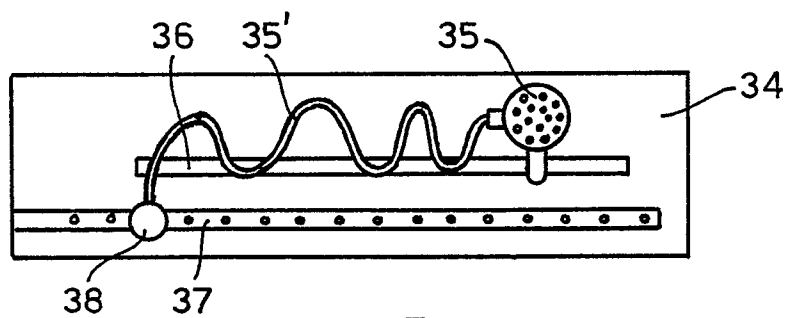


Fig. 5

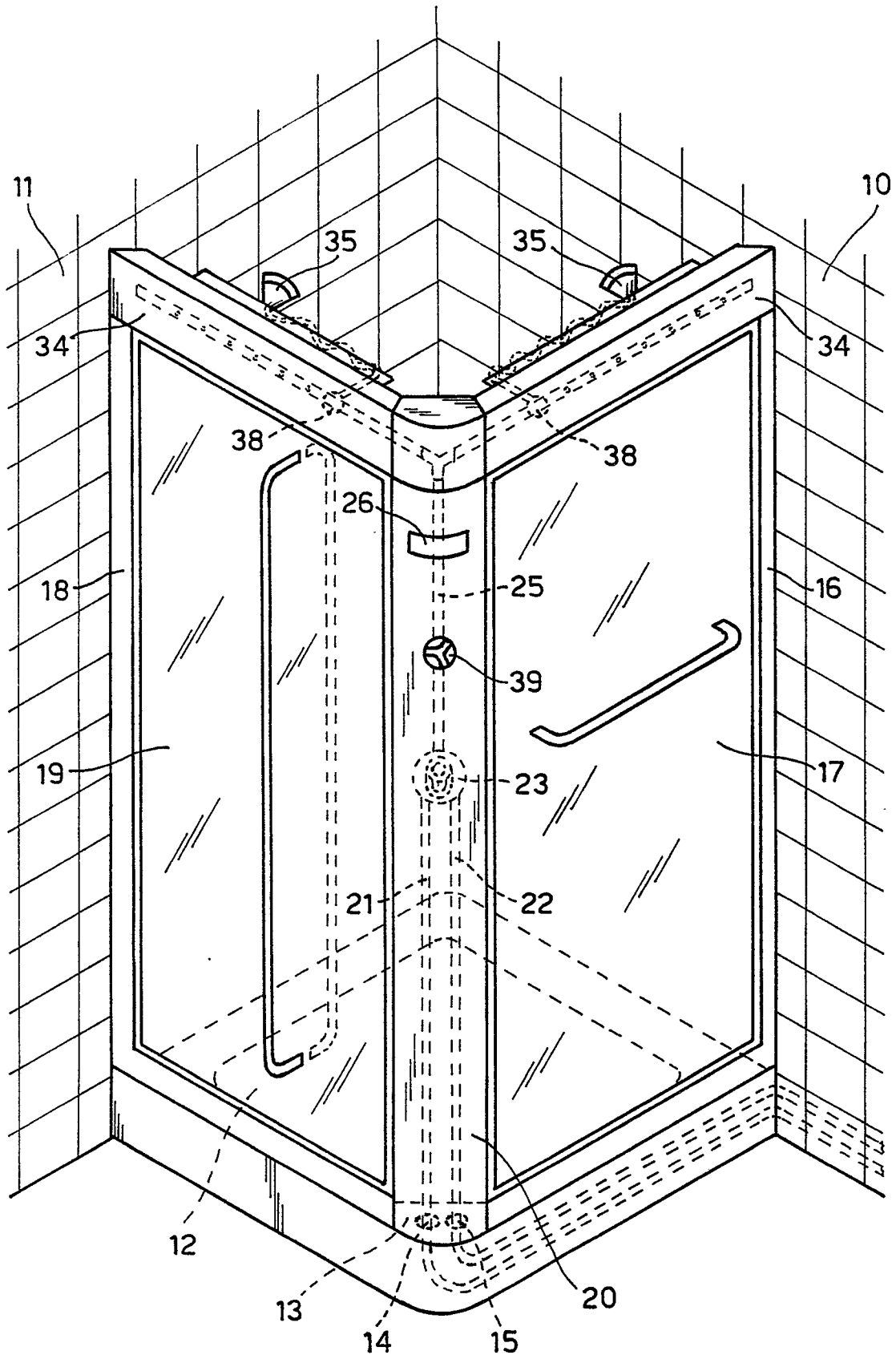


Fig. 4



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.5)
A	DE-A-3 137 406 (MISAWA HOMES K.K.) * Pages 6-9; figures 1,4,7 * ---	1-4,13, 14	E 03 C 1/06 A 47 K 3/22
A	EP-A-0 178 453 (KOHLER CO.) * Page 3, line 24 - page 4, line 35; page 9, line 16 - page 10, line 31; figure 1 * ---	1,6-8	
A	EP-A-0 035 044 (B. LAMPKA) * Pages 4,5,6; figure 1 * ---	1	
A	GB-A- 776 064 (B.W. TAYLOR) * Page 1, line 85 - page 2, line 6; figures 1-3 * ---	1	
A	FR-A-2 375 858 (Y. DUVEAU) ---		
A	DE-A-3 329 830 (K. OHLSON) -----		
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			E 03 C A 47 K
Place of search THE HAGUE		Date of completion of the search 07-09-1989	Examiner BIRD, C.J.
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