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(54) Shower screens

(57) A curved shower screen (32, 34) for a reverse curvature bath (10) is provided and comprises at least two panels (32, 34) which are pivotally interconnected about an upright axis (36) when the screen is in use, the curving of the screen panels being asymmetric follow the curvature of the bath (10) and to enable at least one panel to be folded neatly into the concavity of the curvature of at least one other panel, and the panels (32, 34) in this condition being adapted to be hinged to an out of use position extending transversely of the bath (10) similar to the conventional arrangement.

The advantages are that the screen can be unfolded to provide a shower screen which in use extends along the top edge of the bath to a greater extent than the conventional one which is limited to the width of the bath whilst following the reverse curvature of the bath, and yet when folded to a stowed position, leaves access to the bath taps, which the conventional one does not.

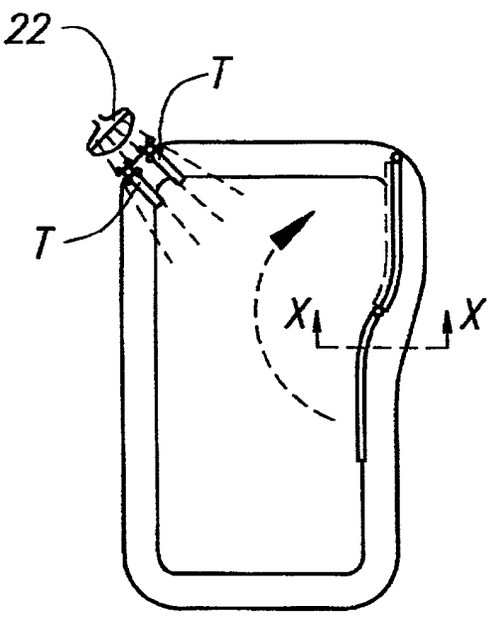

FIG. 3

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Description

[0001] This invention relates to shower screens of a type which are used in conjunction with baths, to enable the bath to be used either for conventional bathing or for taking a shower.

[0002] Bath development has resulted in that baths which heretofore have conventionally been of generally rectangular configuration, now are modified so that whilst they remain essentially rectangular, at one end where a person may stand to take a shower, one of the bath sides may be curved or bulged outwardly basically to provide more space for a person to stand when taking a shower. This creates a convex-concave or reverse curvature on the bath at least on the inside. This also enables the other end of the bath to be made narrower, as it is conceived that the said other end, which is the end which usually accommodates a bather's shoulders, need not be as wide as it currently is. By making the "shoulders" end of the bath narrower, so more room is created for the opening of the bath door, which in turn means that the bathroom can in fact be made narrower, which is always desirable as space is saved.

[0003] This has led to the creation of uni-directionally curved shower screens, the curvature being selected to match simply the curvature of the bulging portion of the side of the bath.

[0004] As is well known, shower screens which are used in conjunction with baths are generally erected to stand above the bath side which faces outwardly into the bathroom. The screen prevents splashing of the shower water into the bathroom floor. When the screen is in its operational position however it forms something of an obstruction for the user who wishes to use the bath in a conventional manner, and because of this it has been popular to provide that the shower screen can be folded to an out of use position in which it lies transversely of or across the width direction of the bath.

[0005] Conventional single panel shower screens are usually pivotable about one upright edge, which lies in the region of a front corner of the bath, so that when the shower screen is in use, it extends along the length of the bath above the front side thereof, and when it is out of use it is pivoted to a position in which it lies basically across the end of the bath. The length of such a screen is limited in that it usually cannot be more than the width of the bath and so when it is turned into the in use position, the extent to which it extends down the length of the bath is also limited. This may in some cases not be sufficient to prevent some of the shower water from splashing onto the bathroom floor.

[0006] The curved screens which have been proposed for use with the curved baths referred to above, have tended to be a single panel curved screen which can be pivoted between the positions referred to. Such a screen not only has the limitation of the length to which it can extend along the length of the bath, but also by virtue of its curvature, it tends to form a serious access obstruction to the bath taps.

[0007] Other forms of curved screen which have been used have been even more obstructive in that they have been mounted in fixed position on the bath and are not capable of movement between an in use and out: of use position. Some of these screens have been provided with small extensions to increase the length to which the screen extends along the bath, to mitigate the splashing problem, but the access difficulty still exists.

[0008] The present invention provides a curved screen arrangement which mitigates the abovementioned problems, and in accordance with the invention there is provided a curved screen for a bath comprising at least two panels which are pivotally interconnected about an upright axis when the screen is in use, the curving of the screen panels being asymmetric to follow the reverse curvature of the bath and to enable at least one panel to be folded neatly into the concavity of the curvature of at least one other section, and the panels in this condition being adapted to be hinged to an out of use position extending transversely of the bath similar to the conventional arrangement.

[0009] Preferably, the screen comprises two of said panels.

[0010] The advantage of such a construction is that even although the panels individually can be made less than the width of the bath, thereby to provide good access to taps, the shower rose and the like, when the panels are opened out and placed in the in use position, the combined length to which the panels extend along the length of the bath can be greater than the width of the bath and the panels can conform to the reverse curvature of the bath. It can be seen therefore that the various problems outlined above are addressed. and at least mitigated by the shower screen of the invention.

[0011] Firstly, the access to the taps can be preserved on the one hand, and secondly when the screen is in use the extent to which it extends along the bath can be greater than normal and providing good protection against splashing of the shower water onto the bathroom floor.

[0012] A suitable curvature arrangement is adopted for the screen panels to achieve the neat, nesting relationship in the folded condition, and in one particular example, we prefer that each screen panel should be curved from the axis of pivoting between the panels such that the panels initially curve smoothly and then lead to relatively flat portions at the edges away from said axis of pivoting, but the shape of the bath will be material in this respect.

[0013] The screen panels preferably are generally rectangular in side view or they can be shaped along their top edge if required, and in use the longer edges will be disposed upright, the shorter edges forming top and bottom edges, and the curvature being in a direction from one longer edge to the other, the panels being straight from top to bottom. The adjacent longer edges of the respective panels form the interconnecting hinge,

and of the free longer edges of the sections, one of these is adapted to form a pivot axis for the entire screen, at one corner of the bath.

[0014] The invention has particular advantage when used in combination with a bath which also has a stepped shoulder which prevents the screen from swinging out over the bath edge, for example as set forth in European Patent Application No. 0801532.

[0015] The screen panels may comprise glass or plastics material or other suitable sheet structure, and the edges may be provided with appropriate seals where the panels stand on top of the edge of the bath or preferably in said shoulder, to prevent water from leaking under the screen.

[0016] An embodiment of the invention will now be described, by way of example, with reference to the accompanying diagrammatic drawings, wherein:-

Fig. 1 is a perspective view of a so-called "curved" bath, with a screen (shown in dotted lines) according to the invention fitted thereto;

Fig. 2 is a top plan view of the screen shown in Fig. 1;

Fig. 3 is a plan view of the bath screen of Fig. 1 showing the screen in a first position of folding;

Fig. 3A is a sectional elevation of a detail, the section being taken on line X-X in Fig. 3;

Fig. 4 is a view similar to Fig. 3 but showing the screen in the final position of folding, and

Figs. 5, 6 show a top plan view of a screen according to a second embodiment of the present invention.

[0017] Referring to the drawings, in Fig. 1 a bath 10 is shown in perspective view, and it will be seen to comprise front and rear sides 12, 14, a bottom 16 and a top 18. At the top, the side 12 is bulged outwardly as shown at 20, and this results in the creation of a somewhat larger standing area for a person wishing to take a shower, and the inside of front side 12 and the top 18 of the bath having a reverse curvature in the region 19 where the bulging starts. Reference numeral 22 indicates a shower rose located offset in relation to the top end of the bath and towards the corner of the bath between the top and the rear side. Although the rose 22 is shown offset on the diagrams, it will be appreciated by those skilled in the art that the particular position of the rose is unimportant, provided that it is located above the height of the screen. Also shown in this locality are taps T for the supply of water for the filling of the bath, when it is to be used conventionally.

[0018] On the front side of the bath is mounted a shower screen 30 made up of two panels or sections 32 and 34 which are hinged together about an axis 36. As can be seen, the sections 32 and 34 are generally rectangular, and are hinged together along a pair of edges so that the top edges 38 and 40 and the bottom edges 42 and 44 of the respective panels lie in the same planes. The panels 32 and 34 are of a similar or the same size, and the longer edge 46 of the panel 34 remote from the edge which is hinged to the other panel forms an axis of pivoting of the entire screen. This edge is located above the corner of the bath formed by the bath top and front side, and again this axis pivoting like the axis of pivoting between the panels, is upright and specifically is vertical.

[0019] The width L of each panel is somewhat less than the width W of the bath, for a purpose to be explained, but the overall width 2L of the screen in the Fig. 1 position is greater than the width W of the bath, for reasons to be explained hereinafter.

[0020] In Figs. 1 and 3, the shower screen is shown in its in use position in which it prevents water from the shower rose from splashing over the front side of the bath and onto the bathroom floor. Also to prevent water leakage, the lower edges of the panels may be provided with appropriate seals which engage the upper surface of the front side of the bath. Additionally, as shown only in Fig. 3A, the top of the bath 18 has a shoulder 18A, which prevents the screen from swinging out over the top 18 of the bath, as provided in European Patent Application No. 0801532. The said seals 21 seat on the shoulder base as shown.

[0021] When it is desired to use the bath conventionally, the panel 32 is folded about the interconnecting hinge 36 onto the panel 34 as shown most clearly in dotted lines in Fig. 2, and then both panels are hinged out of the way about axis 46, to lie over the top edge of the bath as shown in Fig. 4. Fig. 3 also shows in dotted lines how the shower assembly is folded to an intermediate position by folding the panel 32 onto panel 34.

[0022] As shown in Fig. 4, because each panel is of less width than the width of the bath, the assembled panels stop short of the taps and shower rose, enabling access thereto, which distinguishes the shower screen from conventional single panel pivoted, curved shower screens.

[0023] Fig. 2 illustrates the novelty comprising the curvature of the screen, to follow the reverse curvature of the bath, and it will be seen that in this example, each panel is similarly curved. Each panel curves smoothly away from the connecting hinge line 46 over a first region 60, and then this region runs smoothly into a somewhat flat region 62 which extends to the remote edge of the panel. The connecting hinge is selected so that when as shown in Fig. 3 one panel is folded onto the other, a neat, nesting arrangement of the two panels results, and in this form, the screen can be folded to the Fig. 4 position. Various curved shapes may be adopted, and the free ends of the screen may have extensions, and tails for decoration or other purposes, again having

regard to the shape of the bath. For example the sections may be continuously curved throughout their widths, and one section may be longer than the other. In each case, the sections should be able to nest, and preferably able to fold in the nested condition to a stowed position across the bath end.

[0024] The arrangement of Figures 5 and 6 shows an alternative embodiment of the invention in which a substantially flat i.e. not curved screen 64 is provided to which curved screens 34, 32 are pivotally connected along axes vertically aligned with the longer edges of the screen. In particular, the screen 34 is pivotally connected to screen 64 at 46, and screen 32 is pivotally connected to screen 34 at 36. The various arrow 70, 72, 74 show the manner in which the screen folds away in accordance with the invention.

[0025] Figure 6 shows the folding arrangement of the pivotally connected screens of Figure 5. It is to be mentioned that the widths of the screens may be appropriately chosen to suit the particular shape and size of bath to which the screen is to be affixed.

[0026] The invention therefore provides an effective curved screen arrangement, especially for curved baths, although it can be mentioned that it can be used on other baths, and the degree of curvature can be varied to suit any particular bath construction, and indeed the edges of the panels can be profiled to suit any particular aesthetic arrangement.

[0027] The panels can be constructed of any suitable material such as plastics or glass conventionally used for shower screens but again this is not to be considered limiting. The panels may be surrounded by frame members of appropriate design and construction.

Claims

1. A curved screen for a bath (10) comprising at least two panels (32, 34) which are pivotally interconnected about an upright axis (36) when the screen is in use, the curving of the screen panels (32, 34) being asymmetric to follow the reverse curvature of the bath (10) and to enable at least one panel (32) to be folded neatly into the concavity of the curvature of at least one other panel (34), and the panels (32, 34) in this condition being adapted to be hinged to an out of use position extending transversely of the bath (10) similar to the conventional arrangement.

2. A screen according to claim 1, wherein the screen comprises two (32, 34) of said panels.

3. A screen according to claim 2, wherein each screen panel (32, 34) is curved from the axis of pivoting (36) between the panels such that the panels initially curve smoothly and then lead to relatively flat portions (62) at the edges away from said axis of pivoting (36).

4. A screen according to claim 2 or 3, wherein the screen panels (36) are generally rectangular in side view.

5. A screen according to claim 2 or 3, wherein the screen panels are shaped along their top edges (38, 40).

6. A screen according to claim 4 or 5, wherein in use the longer edges of the screen panels (32, 34) are disposed upright, the shorter edges forming top and bottom edges, and the curvature being in a direction from one longer edge to the other.

7. A screen according to claim 6, wherein the panels (32, 34) are straight from top to bottom.

8. A screen according to any of claims 4, 5, 6 or 7, wherein the adjacent longer edges of the respective panels (32, 34) form the interconnecting hinge (36), and of the free longer edges of the panels (32, 34), one of these is adapted to form a pivot axis for the entire screen, at one corner of the bath.

9. A screen according to any preceding claim, wherein the screen panels (32, 34) comprise glass or plastics material or other suitably sheet structure.

10. A screen according to any preceding claim, wherein and the edges of the panels which are adapted to stand of the top edge of the bath are provided with appropriate seals (21), to prevent, in use, water from leaking under the screen.

11. A screen according to any of the preceding claims characterised in that the screen comprises three panels, one of which is substantially flat.

12. A bath provided with a shower screen according to any one of the preceding claims, the bath (10) having a reverse curvature (19) at least on its inner side, and the curvature of the screen panels following said curvature.

13. A bath according to claim 12, wherein the bath has on its top edge where the screen rests, a shoulder (18A) for preventing the screed from swinging outwards from the top (18) of the bath (10).

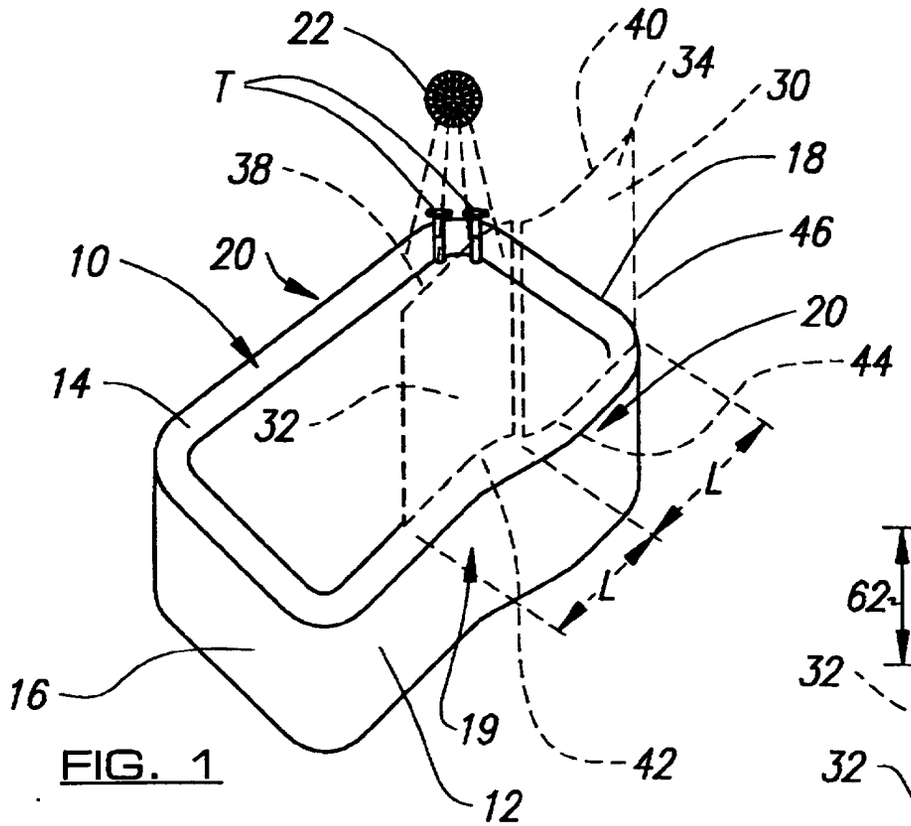

FIG. 1

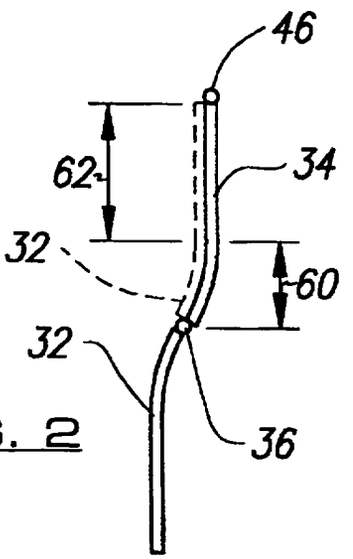

FIG. 2

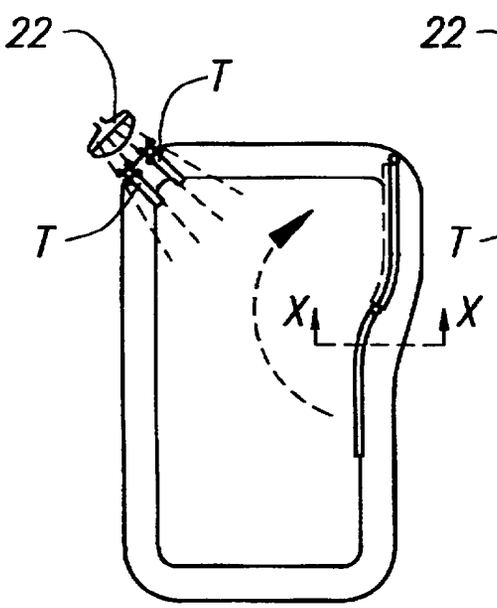

FIG. 3

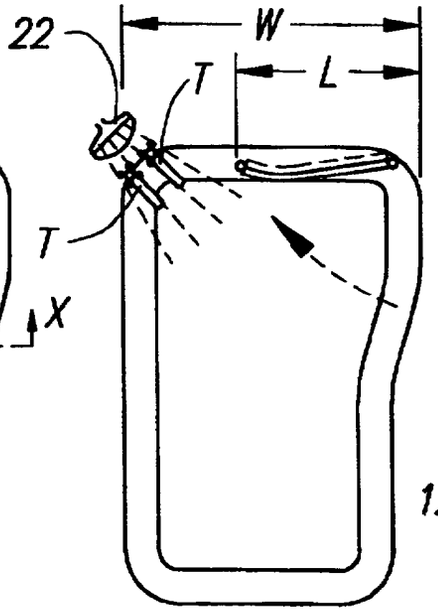

FIG. 4

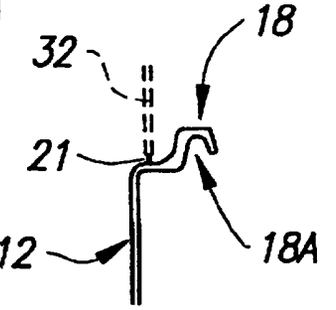

FIG. 3A

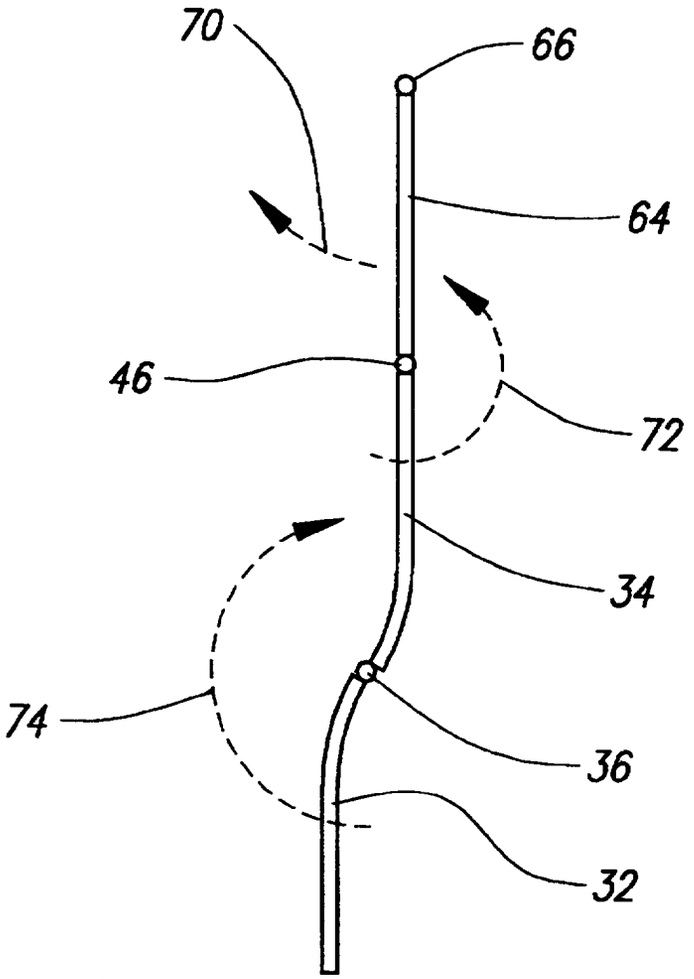

FIG. 5

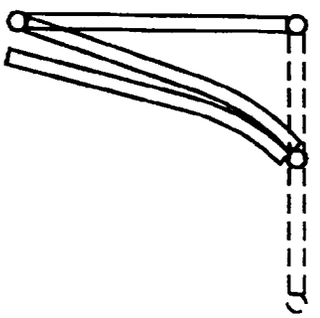

FIG. 6