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Patents Act 1990

PATENT REQUEST: STANDARD PATENT/PATENT OF ADDITION

I, being the person identified below as the Applicant, request the grant of a patent to the person identified below as the Nominated Person, for an invention described in the accompanying standard complete specification.

Full application details follow.

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[54] Invention Title: IMPROVEMENTS IN AND RELATING TO SHOWER BASES

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ASSOCIATED PROVISIONAL APPLICATION(S) DETAILS

[60] Application Number(s) and Date(s)

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Drawing number recommended to accompany the abstract

By my Patent Attorneys,
WATERMARK PATENT & TRADEMARK ATTORNEYS

Dated this 12th day of July 1995.

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NOTICE OF ENTITLEMENT
(To be filed before acceptance)

I, ROCH CREA, o: Suite 1, 57A Buena vista Drive, Montmorency, Victoria 3094, Australia, being the applicant in respect of Application No. 24968/95 state the following:-

The Person nominated for the grant of the patent is the actual inventor.

The Person nominated for the grant of the patent is the applicant of the provisional application listed on the patent request form.

By my Patent Attorneys,
WATERMARK PATENT & TRADEMARK ATTORNEYS

7 January 1998

Registered Patent Attorney
1. A manufactured shower base for a shower recess, said manufactured shower base including a stepped portion adapted to receive fixed walls of the shower recess, said stepped portion including a lower face adjacent to which lower edges of said fixed walls of the shower recess are to be positioned, said shower base further including a front wall wherein said front wall includes a surface which extends upwardly from said lower face of the stepped portion of the shower base to an inner lip located at a level above that of the lower face of the stepped portion.
Application Number:  
Lodged:  

Invention Title: IMPROVEMENTS IN AND RELATING TO SHOWER BASES  

The following statement is a full description of this invention, including the best method of performing it known to us: --
IMPROVEMENTS IN AND RELATING TO SHOWER BASES

This invention relates to shower bases, and in particular to manufactured shower bases produced by methods such as moulding.

Shower recesses are a common inclusion in the bathrooms of most homes, particularly newly constructed homes. However, statistics show that shower recesses are a common source of complaint, both to new and existing home owners alike. For example, statistics from housing authorities, such as the Housing Guarantee Fund, show that the majority of consumer complaints regarding newly constructed houses are related to tiled areas, and in particular, to shower recesses.

A common form of shower recess includes a manufactured shower base. However, conventional manufactured shower base designs demand exacting installation if leakage problems are to be avoided. This proves time consuming and adds to the cost of installing the shower base. Moreover, additional costs are incurred where leakage problems do arise since tradesmen must return to the installation and attempt to rectify the leakage problem.

The conventional manufactured shower base is typically of a moulded unitary construction which includes a recess or ledge into which the fixed walls of the shower recess are located. Commonly, the fixed walls of a shower recess are tiled and hence the bottom row of tiling is seated into this wall (tile) recess of the shower base. The conventional design of manufactured shower bases demands that great care must be taken when installing the shower base to ensure that there is no leakage of water between the wall recesses in the shower base and the fixed walls of the shower recess. In response to the acknowledged leakage problems, manufacturers of conventional shower base designs recommend that an appropriate sealant be used in the junctions between the walls of the shower recess and the wall recesses in manufactured shower base. In shower recesses which feature tiled walls, it is recommended that an appropriate sealant be used to seal the gaps between the first row of tiles and the wall (tile) recess in the shower base. However, this recommendation is little known in the building trade and also this adds considerably to the time and labour requirements of installing conventional
manufactured shower bases. Thus it is common practice in the building trade for tradesmen to simply use a grouting material to cover over the gap between lower edge of the tiles of the walls and the wall recesses in the shower base. If a tiling grout is used rather than the prescribed sealant then over time the grouting cracks and separates and eventually falls out. Water then infiltrates into the tile recess of the shower base either under capillary action or by direct flow. The water can then work its way along the ledge of the recess and in most cases runs behind the shower screen frame and leaks out from the front of the shower base. The leakage of water is accentuated if the shower base has a gradient towards the front, which often arises where the house “settles” over time. This commonly occurring leakage problem is typically diagnosed as being that the shower screen leaks at the bottom. Hence time, effort and expense are usually directed at attempting to seal the shower screen.

The present invention aims to address some of the problems associated with present manufactured shower base designs and to provide a manufactured shower base which does not require exacting installation in order to provide the consumer with a leakage free shower recess.

To this end the present invention provides a manufactured shower base for a shower recess, said manufactured shower base including a stepped portion adapted to receive fixed walls of the shower recess, said stepped portion including a lower face adjacent to which lower edges of said fixed walls of the shower recess are to be positioned, said shower base further including a front wall wherein said front wall includes a surface which extends upwardly from said lower face of the stepped portion of the shower base to an inner lip located at a level above that of the lower face of the stepped portion.

This invention is predicated on the discovery that the source of the leakage problems associated with shower recesses which feature a conventional manufactured shower base lies with the design of the manufactured shower base and is not generally related to the sealing or leakage of the shower screen as is commonly believed. The present invention results in a shower recess which does not require the exacting installation procedures of conventional shower base designs in order to alleviate the
leakage problems associated with the wall recesses of known shower base designs, and thus which has reduced labour requirements in order to install the recess satisfactorily.

Preferably the inner lip of the front wall of the shower base extends across the width of the front wall of the shower base.

It is further preferable that the inner lip takes the form of the upper inner edge of the front wall of the shower base.

It is also preferable that the said inner lip or upper inner edge of the front wall of the shower base be located in a plane substantially at right angles to the plane of the lower face of the stepped portion of the shower base. It is also preferable that the surface of the front wall which extends upwardly from the said lower face of the stepped portion is located in a plane substantially at right angles to the plane of the said lower face.

It is also preferable that the front wall of the shower base includes a substantially horizontal surface or ledge which extends outwardly from the upper inner edge of the front wall of the shower base. It is further preferable that the substantially horizontal surface or ledge is adapted for the mounting of a movable wall member which acts as a shower screen for the shower recess.

It is a further preferred feature of the present invention that the manufactured shower base includes a substantially vertical surface which extends upwardly from the lower face of the stepped portion of the shower base and against which the fixed walls of the shower recess are to be positioned, wherein the said vertical surface extends at least 20 mm above the level of the said lower face. This preferred feature of the present invention provides enhanced seating and sealing of the fixed walls of the shower recess against the shower base.

It is also a further preferred feature of the present invention that the said lower face of the stepped portion be substantially horizontal and of a depth of at least 20 mm. This preferred feature enables the manufactured shower base to accommodate thicker wall materials and to also accommodate for the situation where the fixed walls of the shower recess are out of alignment.
This invention will be better understood and appreciated from the following discussion of a preferred embodiment of the invention. Reference is made to the accompanying drawings in which:

Figure 1 is a broken cross-sectional view of a preferred embodiment of the present invention along the section line A-A shown in Figure 2, with a section of a fixed wall of the shower recess depicted in position in the wall recess of the shower base;

Figure 2 is a plan view of a preferred embodiment of the manufactured shower base according to the present invention;

Figure 3 is a perspective view of the shower base depicted in Figure 2; and

Figure 4 is an enlarged view of the corner junction of the shower base encircled in Figure 3.

Referring to Figures 1 and 2, the shower base 1 is preferably of unitary construction and is preferably formed by a moulding process. In order to reduce weight it is preferred to use either an acrylic material or a lightweight resinous material such as polymarble to form the shower base. The shower base 1 includes a floor 2 which includes gradients which run towards a drainage outlet 3. The shower base includes inner walls or faces 4 which extend upwardly from the floor 2 of the shower base. The inner walls 4 of the shower base include a stepped portion 5 which forms a recess 6, commonly referred to as a wall or tile recess, into which the fixed walls 7 of the shower recess are located. This stepped portion 5 includes a substantially horizontal lower face 8 against which the lower edges 9 of the fixed walls of the shower recess are positioned. It is preferable for the depth of the lower face 8, and hence the wall recess 6, to be in excess of 20 mm since this provides an enlarged wall recess which caters for thicker wall materials such as thicker tiles. The enlarged wall recess also provides greater allowance for the fixed walls being out of alignment and thus overcomes the not uncommon situation with conventional installations where the tiles overhang the wall recess. The inner walls of the shower base further include an upstanding portion 10, commonly referred to as a flashing upstand, which is positioned outwardly from the lower face 8 of the wall recess and which
extends vertically from the lower face 8. The flashing upstand 10 provides a substantially vertical face against which the fixed wall material 7 of the shower recess is seated. In order to provide enhanced seating and sealing of the fixed walls of the shower recess against the shower base the height of the flashing upstand should preferably be in excess of 20 mm above the level of the lower face 8 of the wall recess.

Typically the fixed walls of a shower recess include a wall lining 11, and tiles 12 which provide the outer face of the fixed walls of the shower recess. However it should be noted that wall materials other than tiles may be used.

Commonly where the shower base is square or rectangular there are three fixed walls and hence the wall recess 6 is provided in at least three of the inner walls of the shower base as in the embodiment shown accompanying representations. However it should be understood and appreciated that the present invention is not limited to a particular shape or form of the shower base.

Hence it is possible to apply the present invention to shower bases which have straight sides, curved sides, or combinations of straight and curved sides.

Referring to Figures 3 & 4 it can be seen that in the embodiment depicted the wall recess 6 terminates at the inner face 15 of the front wall 13 of the shower base. This wall is commonly referred to as a kerb, and it is over this kerb that ingress to and egress from the shower recess is made. The inner face 15 of the front wall extends upwardly from the lower face 8 of the wall recess to a lip 16 which takes the form of the upper inner edge of the kerb and which is of a height above that of the lower face 8 of the wall recess 6 in the shower base. Hence any water which penetrates between the lower face 8 of the wall recess and the lower edges 9 of the fixed walls of the shower recess cannot flow out from the shower recess. In the embodiment depicted, the wall 13 and the lip 16 are at right angles to the plane of the adjacent inner side walls of the manufactured shower base and to the adjacent stepped portion. In the preferred embodiment depicted the inner face 15 of the front wall 13 of the shower base is located in a plane which is substantially at right angles to the plane of the lower face 8 of the wall recess. The wall 13 also includes a substantially horizontal face or ledge 17 extending outwardly from the inner
edge 16. Preferably the ledge is sized to accommodate the mounting of a movable shower screen such as a slidable or pivotable door. In the preferred embodiment depicted the level (or vertical height) of this horizontal face of the kerb 13 is greater than the level of the lower face 8 of the wall recess 6 in the shower base. Hence any water which penetrates between the lower face 8 of the wall recess and the lower edges 9 of the fixed walls of the shower recess cannot flow out from the shower recess.

Thus it can be appreciated that the present invention provides a shower base design which considerably reduces the labour requirements for correct installation and which alleviates the leakage problems associated with the wall recesses of known shower base designs.
THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:

1. A manufactured shower base for a shower recess, said manufactured shower base including a stepped portion adapted to receive fixed walls of the shower recess, said stepped portion including a lower face adjacent to which lower edges of said fixed walls of the shower recess are to be positioned, said shower base further including a front wall wherein said front wall includes a surface which extends upwardly from said lower face of the stepped portion of the shower base to an inner lip located at a level above that of the lower face of the stepped portion.

2. The manufactured shower base as claimed in Claim 1 wherein an upper inner edge of the front wall of the shower based forms the said inner lip.

3. The manufactured shower base as claimed in either Claim 1 or 2 wherein the said inner lip or the upper inner edge of the front wall of the shower base is located in a plane substantially at right angles to the plane of the lower face of the stepped portion of the shower base.

4. The manufactured shower base as claimed in any one of Claims 1 to 3 wherein the surface of the front wall which extends upwardly from the said lower face of the stepped portion is located in a plane substantially at right angles to the plane of the said lower face.

5. The manufactured shower base as claimed in any one of Claims 1 to 4 wherein the front wall of the shower base includes a substantially horizontal surface or ledge which extends outwardly from the upper inner edge of the front wall of the shower base.

6. The manufactured shower base as claimed in Claim 5 wherein the said substantially horizontal surface or ledge is adapted for the mounting of a movable wall member to act as a shower screen for the shower recess.
7. The manufactured shower base as claimed in any one of Claims 1 to 6 wherein the stepped portion further includes a substantially vertical surface which extends upwardly from the lower face of the stepped portion of the shower base and against which the fixed walls of the shower recess are to be positioned.

8. The manufactured shower base as claimed in Claim 7 wherein the said vertical surface extends at least 20 mm above the level of the said lower face.

9. The manufactured shower base as claimed in any one of Claims 1 to 8 wherein the said lower face of the stepped portion is substantially horizontal and of a width of at least 20 mm.

10. The manufactured shower base as claimed in any one of Claims 1 to 9 wherein said shower base is of unitary construction formed by a moulding process.

11. The manufactured shower base as claimed in Claim 10 wherein the shower base is moulded from an acrylic based material or a lightweight resinous material.

DATED this 7th day of January, 1998

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ABSTRACT

An improved manufactured shower base is disclosed which alleviates the need for exacting installation in order to provide the consumer with a leakage free shower recess.

The shower base includes a stepped portion adapted to receive the fixed walls of the shower recess, the stepped portion including a lower face adjacent to which lower edges of said fixed walls of the shower recess are positioned. The shower base further includes a front wall which includes a surface which extends upwardly from the lower face of the stepped portion to an inner lip.

The invention results in a shower recess which does not require the exacting installation and wall tiling procedures of conventional shower base designs in order to alleviate the leakage problems associated with the wall recesses of known shower base designs, and thus satisfactory installation can be achieved with reduced labour requirements and lower cost.