Sept. 22, 1964 M. EMBRODEN 3,149,347

PREFABRICATED SHOWER ENCLOSURE

Filed June 21, 1962

Fig. 1

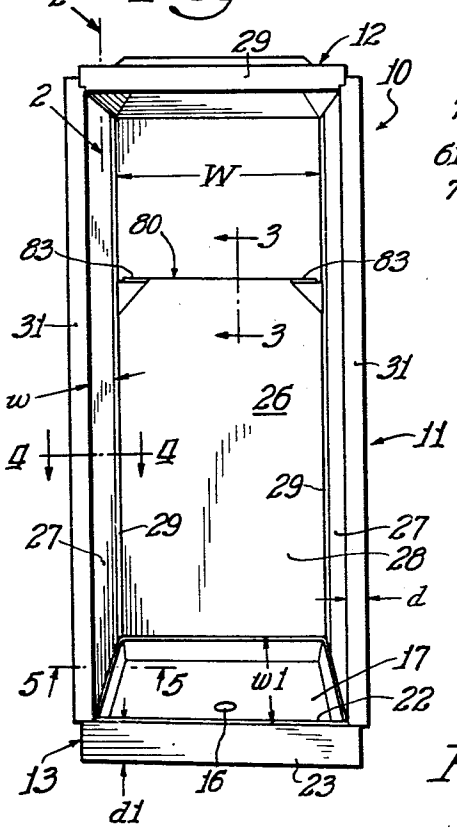


Fig. 2

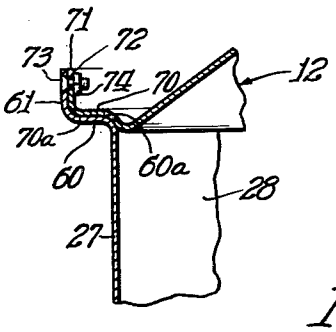


Fig. 3

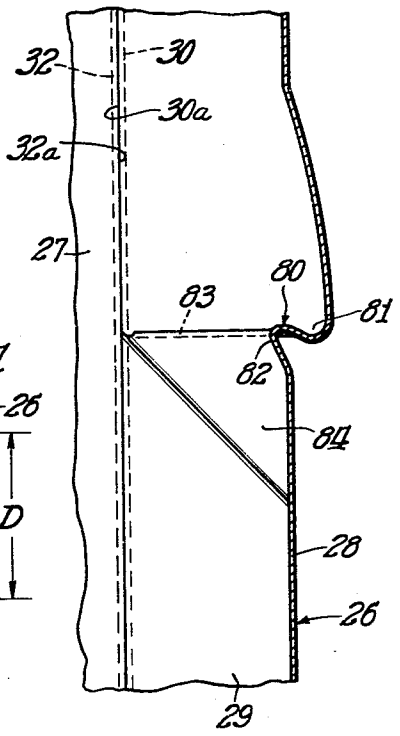


Fig. 4

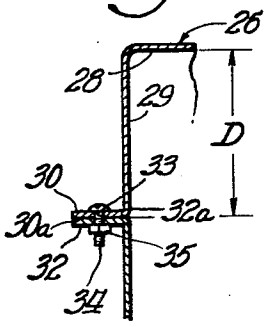
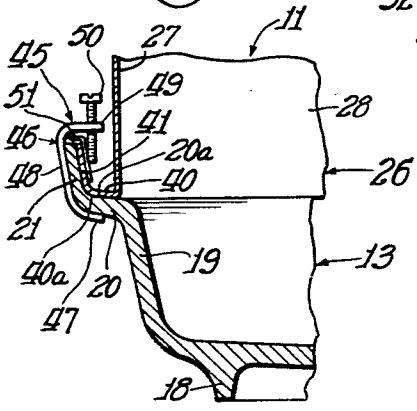


Fig. 5



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PREFABRICATED SHOWER ENCLOSURE

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This invention relates to a shower apparatus and more particularly to a prefabricated shower enclosure.

In providing a shower enclosure, it is the usual practice to either have the enclosure pre-assembled at the factory or to handmake the enclosure at the location where it is to be utilized. The pre-assembled shower enclosures are extremely bulky to transport and store and known types of prefabricated shower enclosures have several disadvantages which have been found to be highly undesirable. In particular, even though shower enclosures may be prefabricated, such enclosures are usually cumbersome to ship because of the particular shape and size of the various assembly pieces. On the other hand, if the number of pieces is increased to provide a less cumbersome, more compact package for shipping and storage purposes then the number of seams is likewise increased with a resulting decrease in strength of the assembled shower enclosure, and a corresponding increase in the number of possible leaks through the seams.

The number of seams should, therefore, be held to a minimum, the size and shape of the fabricating pieces should be such as to provide a compact arrangement of the fabricated parts and yet provide the most sturdy ultimate structure possible. It is, therefore, extremely important to provide a prefabricated shower enclosure wherein the individual fabricated pieces thereof are sufficiently large to reduce the number of seams and to increase the strength of the ultimate enclosure and further, to provide such a structure with fabricated pieces that are shaped to facilitate a compact disassembled arrangement for shipping and storage purposes.

It is a primary object of this invention to provide a prefabricated shower enclosure having fabricated pieces that may be compactly arranged to occupy a small amount of space for shipping and storage purposes.

Another object of this invention is to provide a prefabricated shower enclosure having a minimum number of seams generally and in particular a minimum of corner seams.

Still another object of this invention is to provide a prefabricated shower enclosure having complementary seams between the fabricating parts thereof that reduce the tendency for leakage therebetween.

Another object of this invention is to provide a prefabricated shower enclosure wherein the fabricated pieces thereof are adapted to be joined by clamping means that reduce the tendency for water to leak between the joints.

A further object of this invention is to provide a prefabricated shower enclosure of relatively simple and economical construction.

With these and other objects in view, the present invention contemplates a prefabricated shower enclosure assembly having a back wall that defines a forwardly extending enclosure and wherein side walls are secured to the forwardly extending portions of the back wall member to provide a shower enclosure. The shower enclosure is provided with a top and bottom member secured thereto to further enclose the shower. The bottom and top members are adapted for complementary sealed engagement with the shower enclosure and are secured to the shower enclosure by means of complementary securing means adapted for holding the top and bottom in sealed engagement with the shower enclosure. The back wall extensions and the top and bottom members are of such dimensions that will allow the extensions and top and bottom members to be positioned within the enclosure defined by the back wall member to provide a compact arrangement of the members for occupying a minimum amount of space during shipping and storage of the various unassembled fabricated shower members.

Other objects, advantages, and novel aspects of the invention will become apparent upon the consideration of the following detailed description in conjunction with the accompanying drawings wherein:

FIG. 1 is a front perspective view of the assembled prefabricated shower enclosure assembly;

FIG. 2 is a partial sectional view taken along line 2—2 of FIG. 1 showing the top and side engaging surfaces;

FIG. 3 is a partial sectional view taken along line 3—3 of FIG. 1 showing the back wall member joined to the side wall member;

FIG. 4 is a partial sectional view taken along line 4—4 of FIG. 1 showing the configuration of the back and side wall engaging surfaces; and

FIG. 5 is a partial sectional view taken along line 5—5 of FIG. 1 showing the configuration of the side and back wall and the shower base complementary engaging surfaces secured in water-tight complementary engagement.

Referring to the drawings there is illustrated an assembled prefabricated shower enclosure assembly (FIG. 1) generally designated by the numeral **10**. The shower assembly **10** has a central vertical shower enclosure portion **11** covered by a top **12** and supported by a base or shower receptor bottom **13**. The central portion **11**, the top **12** and bottom **13** may be made from plastic, metal or other moldable material. The base or shower receptor **13** is relatively thick so as to provide adequate support for the shower enclosure assembly **10** and for any person using the assembly.

The base **13** has a drain **16** formed in a floor portion **17** thereof and is provided with supporting webs **18** thereunder. The base **13** (FIG. 5) is provided with upwardly extending front, side and back enclosing walls **19**; a continuous outwardly extending flange portion **20** on the top of the side base walls **19** and the back base wall **19**; and a continuous upwardly extending lip **21** on the flange **20**. The front base enclosing wall **19** is provided with a forwardly extending threshold plate **22** and a downwardly extending front plate **23**.

The shower enclosure **11** comprises generally a three-sided back wall member **26** and two side wall members **27**. The back wall member includes a back wall panel **28** and two partial side wall panel portions **29** that extend forwardly from respective vertical edges of the back wall **28**. The back wall **28** and the partial side wall portions **29** thus define the three-sided forwardly opening back wall enclosure member **26**. An outwardly extending flange **30** is provided on the forward edge of each of the partial side wall portions **29**.

The side wall members **27** are each provided with an outwardly extending face plate **31** (FIG. 1) on the forward edge thereof, and an outwardly extending flange **32** on the rear edge thereof (FIG. 4). The flanges **32** are adapted to respectively complementarily engage the flanges **30** on the partial side walls **29** of the back wall member **26** to form a joint. The flanges **30** and **32** are provided with aligned openings **33** through which a bolt **34** may be inserted. A nut **35** may be attached to each of the bolts **34** to respectively secure the side walls **27** to the partial side walls **29** of the back wall member **26**. A mastic is provided on abutting surfaces **30***a* and **32***a* of the flanges **30** and **32** so that the joint between the

side walls 27 and the respective partial side walls 29 of the back wall member 26 will be water tight.

A flange 40 and a lip 41 (FIG. 5) are provided on the lower edge of the side walls 27, partial side walls 29, and the back wall 28 of the shower enclosure portion 11. The flange 40 and lips 41 are continuous along the bottom of the side walls 27 and along the bottom of the partial side walls and the back wall 29 and 28 respectively. The flange 40 and lip 41 of each of the side walls 27 and the flange 40 and the lip 41 of each of the patrial side walls 29 are adapted to be in continuous alignment when the side walls 27 and partial side walls 29 are joined along the flange surfaces 30*a* and 32*a* by the bolts 34 as previously described (FIG. 4).

The flange 40 and the lip 41 are adapted to be complementary with the flange 20 and the lip 21 of the base 13 so that when the shower enclosure 11 is placed upright on the base 13 (FIG. 1) the flanges 40 and lips 41 of the enclosure 11 will be in complementary engagement with the continuous flange 20 and the continuous lip 21 of the base 13. A mastic is provided on surfaces 20*a* and 40*a* of the flanges and lips of the base 13 and the flange 40 and lip 41 of the enclosure 11 respectively for providing a waterproof joint between the base 13 and the shower enclosure 11.

A clamp, generally designated by the numeral 45, is provided for securing the flange 40 and the lips 41 of the shower enclosure 11 to the flange 20 and lip 21 of the base 13 to assemble the shower enclosure to the base 13. The clamp 45 comprises a bracket 46 having a lower extremity 47 that is adapted to be substantially complementary with the flange 20 of the base 13, a central portion 48 that is adapted to be substantially complementary with the lip 21 of the base 13, and an upper portion 49 extending inwardly beyond the lips 21 and 41 and has a screw 50 threaded therethrough. The clamp 45 is held in position (FIG. 5) by threading the screw 50 toward the lip 41 against an L-shaped metal clip 51 placed on the lip 41. The clip 51 prevents the screw 50 from damaging the lip 41 and tends to hold the upper edges of the lips 21 and 41 even.

A flange 60 and a lip 61 are provided on the upper edge of the side walls 27, the partial side walls 29, and the back wall 28 of the shower enclosure 11 (FIG. 2). The flanges 60 and lips 61 are continuous along the top of the side walls 27 and along the top of the partial side walls 29 and the back wall 28. The flange 60 and the lip 61 of the side walls 27 and the partial side walls 29 are substantially aligned when the side walls 27 and partial side walls 29 are joined along the flange surfaces 30*a* and 32*a* by the bolts 34 as previously described (FIG. 4).

The top of the shower enclosure assembly, generally designated by the numeral 12 (FIGS. 1 and 2), is of a general dome shape and has a turned-up front plate 29. The sides and back edge of the top 12 are provided with a continuous outwardly extending flange 70 and upwardly extending lip 71 (FIG. 2) which are adapted to respectively complementarily engage the flanges 60 and lips 61 of the side walls 27 and the back wall member 26 when the top 12 is in the assembled position (FIGS. 1 and 2).

The lips 71 and 61 have aligned openings 72 therein adapted to receive a bolt 73 to which a nut 74 is threaded for securing the top 12 to the shower enclosure 11. A mastic is provided on complementary surfaces 60*a* and 70*a* of the flanges 60 and lips 70 of the shower top 17 and the shower enclosure 11 to provide a water tight joint between the top 12 and the shower enclosure 11 when the nut 74 is tightened on the bolt 73.

A grab rail 80 (FIG. 3) is formed in the back wall 28 of the back wall member 26 by molding a recess 81 and a protrusion 82 into the back wall 28. The lower curved portion of the recess 81 is sloped laterally (FIG. 1) so that the recess 81 will drain. A soap dish shelf 83 is molded in each corner of the back wall member 26 between the back wall 28 and the respective side wall portions 29 (FIGS. 1 and 3) and is supported by a molded portion 84.

The shower assembly 10 is prefabricated to the extent that it comprises various preshaped prepared members which merely require assembling. In particular, as has been previously explained, the prefabricated shower assembly 10 includes a base 13, a back wall member 26, two side walls 27 and a top 12. The back wall member 26 has a depth D (FIG. 4) and a width W (FIG. 1). The side walls 27 each have a depth *d* (FIG. 1) and a width *w* (FIG. 1). The top 12 and bottom 13 have a maximum depth *d*1 from the top to the bottom thereof and a width *w*1 from the front to the back wall thereof.

The width and depth of the various members of the shower assembly 10 (except the back wall member 26) are generally less than the width W and depth D of the back wall member 26. The width and the depth *w* and *d* of the side walls 27 are such that the side walls 27 when disassembled from the back wall member 26 may be placed within the partial side walls 29 of the back wall member 26. Further, the maximum width and depth *w*1 and *d*1 of the top and bottom 12 and 13 respectively of the shower assembly 10 are such that the top 12 and the bottom 13 may be placed within the partial side wall portions 29 of the back wall member 26 along with the side walls 27. As a consequence, it should be noted that the disassembled shower assembly 10 presents a compact arrangement of the various members thereof with the side walls 27 and the top and bottom 12 and 13 substantially contained within the extremities of the back wall member 26.

I wish it to be understood that the invention is not to be limited to the specific constructions and arrangements shown and described, except only insofar as the claims may be so limited, as it will be understood to those skilled in the art that changes may be made without departing from the principles of the invention.

What is claimed is:

1. A prefabricated shower enclosure assembly comprising a back wall enclosure member, said back wall member having a back wall panel and two side wall panels extending forwardly from said back wall panel at an angle with the surface of said back wall panel a spaced distance apart to provide a forwardly opening enclosure, side wall panel extension members respectively securable to the forward edges of said back wall side panels for enlarging the forwardly opening back wall enclosure to provide a shower enclosure, said side wall panels having a width less than the space between said back wall side panels to be positionable within the back wall enclosure member extremities when not secured to said back wall side wall panels, means for securing said side wall panels to said back wall to assemble said shower enclosure, an outwardly extended flange joined to the top edge of said enclosure by a curved surface forming a part of said flange and having a lip extended upwardly from the outer edge of said flange, a shower top having a flange and a lip extending therefrom to respectively complementarily engage said enclosure flange and lip, and means for securing said top to said enclosure with the respective flanges and lips thereof in complementary engagement for providing a water-tight joint between said enclosure and said top.

2. A prefabricated shower enclosure assembly comprising a back wall enclosure member, said back wall member having a back wall panel and two side wall panels extending forwardly from said back wall panel at an angle with the surface of said back wall panel a spaced distance apart to provide a forwardly opening enclosure, side wall panel extension members respectively securable to the forward edges of said back wall side panels for enlarging the forwardly opening back wall enclosure to provide a shower enclosure, said side wall panels having

a width less than the space between said back wall side panels to be positionable within the back wall enclosure member extremities when not secured to said back wall side wall panels, means for securing said side wall panels to said back wall to assemble said shower enclosure, a flange extended outwardly from the bottom edge of said enclosure and having a lip extended upwardly from the outer edge of said flange, a shower bottom having a flange and a lip extending therefrom to respectively complementarily engage said enclosure flange and lip, said shower bottom being more narrow from the front edge to the back edge thereof than the space between said back wall side panels to be positionable within said back wall member to present a compact arrangement of said back wall member and said bottom when said bottom is not secured, and clamping means for securing said bottom to said enclosure with the respective flanges and lips thereof in complementary engagement.

3. A prefabricated shower enclosure assembly comprising a back wall enclosure member, said back wall member having a back wall panel and two side wall panels extending forwardly from said back wall panel at an angle with the surface of said back wall panel a spaced distance apart to provide a forwardly opening enclosure, side wall panel extension members respectively securable to the forward edges of said back wall side panels for enlarging the forwardly opening back wall enclosure to provide a shower enclosure, said side wall panels having a width less than the space between said back wall side panels to be positionable within the back wall enclosure member extremities when not secured to said back wall side wall panels, means for securing said side wall panels to said back wall to assemble said shower enclosure, an outwardly extended flange joined to the top edge of said enclosure by a curved surface forming a part of said flange and having a lip extended upwardly from the outer edge of said flange, a shower top having a flange and a lip extending therefrom to respectively complementarily engage said enclosure flange and lip, means for securing said top to said enclosure with the flanges and lips in complementary engagement, a flange extended outwardly from the bottom edge of said enclosure and having a lip extended upwardly from the outer edge of said flange, a shower bottom having a flange and a lip extending therefrom to respectively complementarily engage said enclosure flange and lip, said shower bottom and top both being more narrow from the front edge to the back edge thereof than the space between said back wall side panels to be positionable within said back wall member to present a compact arrangement of said back wall member and said bottom and top when said bottom and top are not secured, and clamping means for respectively securing said bottom to the bottom of said enclosure with the respective flanges and lips thereof in complementary engagement.

4. A prefabricated shower enclosure assembly comprising a back wall enclosure member, said back wall member having a back wall panel and two side wall panels extending forwardly from said back wall panel at an angle with the surface of said back wall panel a spaced distance apart to provide a forwardly opening enclosure, side wall panel extension members respectively securable to the forward edges of said back wall side panels for enlarging the forwardly opening back wall enclosure to provide a shower enclosure, said side wall panels having a width less than the space between said back wall side panels to be positionable within the back wall enclosure member extremities when not secured to said back wall side wall panels, means for securing said side wall panels to said back wall to assemble said shower enclosure, a flange extended outwardly from the bottom edge of said enclosure and having a lip extended upwardly from the outer edge of said flange, a shower bottom securable to the bottom of said shower enclosure and having a flange and a lip extending therefrom to respectively complementarily engage said enclosure flange and lip, said shower bottom being more narrow from the front edge to the back edge thereof than the space between said back wall side panels to be positionable within said back wall member to present a compact arrangement of said back wall member and said bottom when said bottom is not secured to said shower enclosure, and clamping means for securing said bottom to said enclosure with the respective flange and lips thereof in complementary engagement; said clamping means having a serially interconnected flange, lip, and top portions, said clamp flange portions adapted to complementarily engage the lower surface of said bottom flange, said clamp lip portion being adapted to complementarily engage the outer surface of said bottom lip portion and to extend upwardly therebeyond, said clamp top portion extending inwardly from said clamp lip portion beyond said enclosure bottom lip, a plate extending over the upper edge of said shower enclosure lip and the inner surface of said lip, a screw threadably inserted through said clamp upper portion and thereby adapted to be urged toward said clamp flange portion in engagement with said plate when rotated in said clamp upper portion for holding said shower enclosure and bottom flanges and lips in complementary engagement.

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