Feb. 29, 1944. S. E. NILSON 2,343,201

SHOWER STALL

Filed June 5, 1942 2 Sheets-Sheet 1

Fig. 1.

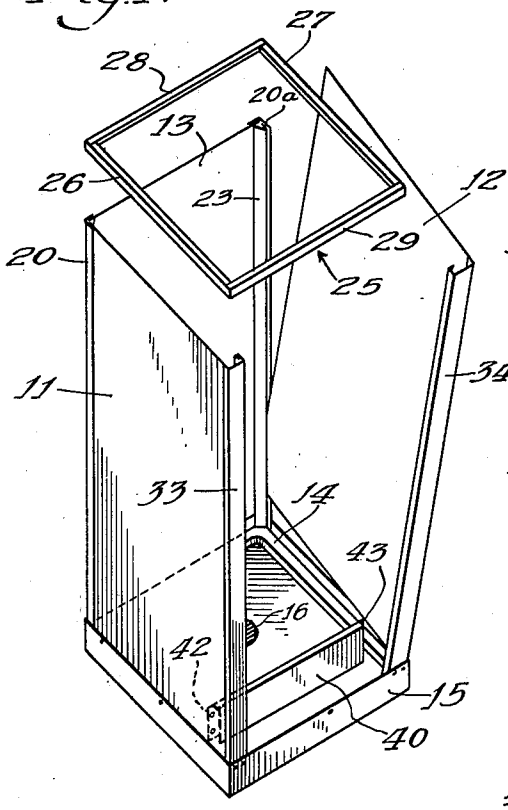


Fig. 2.

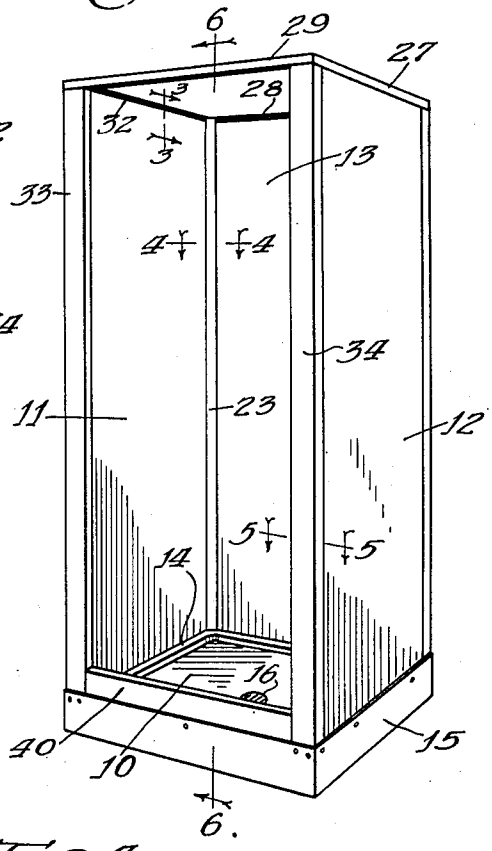


Fig. 3.

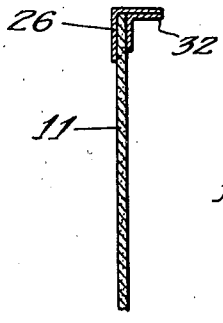


Fig. 4.

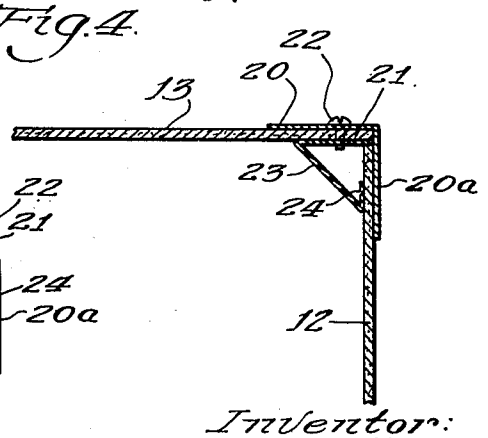
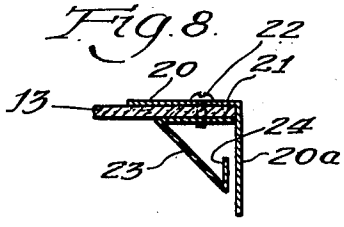


Fig. 8.



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SHOWER STALL

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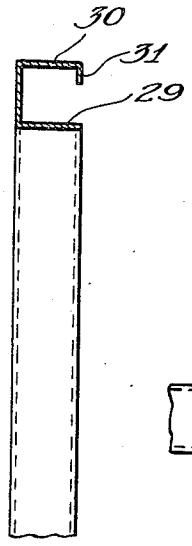


Fig. 5.

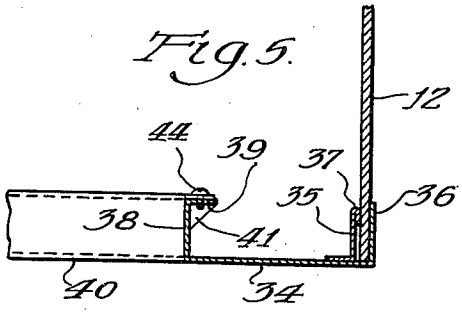


Fig. 7.

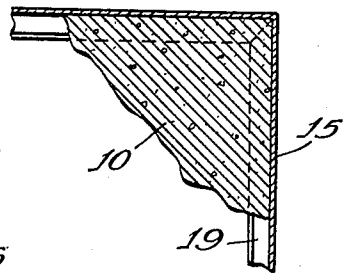
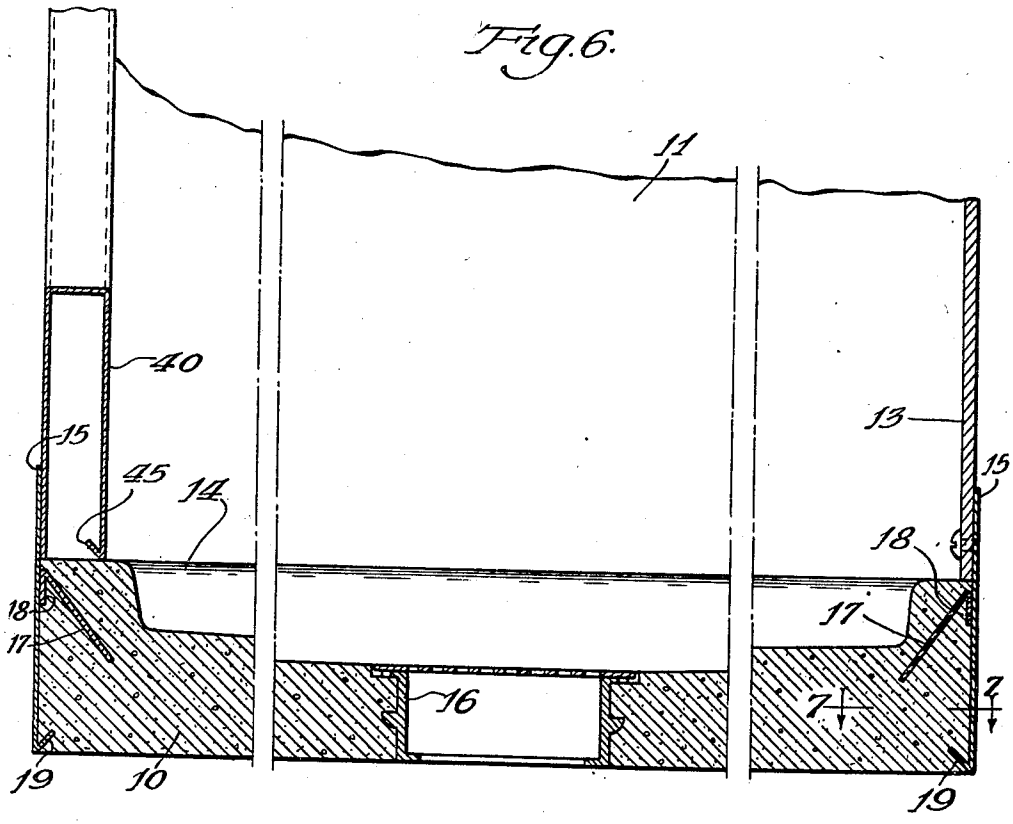


Fig. 6.



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UNITED STATES PATENT OFFICE

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SHOWER STALL

Stanley E. Nilson, Chicago, Ill., assignor to Fiat Metal Manufacturing Company, Chicago, Ill., a corporation of Illinois

Application June 5, 1942, Serial No. 445,869

3 Claims. (Cl. 189—2)

The present invention relates to shower stalls or compartments and is particularly directed to a construction which is simple, light and easily assembled on the job after being fabricated at a central plant and shipped in a knocked down condition. One of the principal purposes of the invention is to provide in a shower stall of this character a novel frame construction utilizing a relatively small amount of metal whereby a hard-pressed, treated fibreboard which is waterproof and rigid may be placed in the framework with a minimum amount of assembly work and held together in a rigid construction.

It is another purpose of the present invention to provide in a shower stall or compartment a novel connecting joint between the side walls and back wall of the compartment whereby the side walls may be attached to the back wall in the assembly without using screws or other attaching means that would necessitate putting holes in the side walls.

The features and advantages of the invention will appear more fully as the description proceeds, reference being had to the accompanying drawings wherein a preferred form of the invention is shown. It should be understood however that the drawings and description are illustrative only and are not to be taken as limiting the invention except insofar as it is limited by the claims.

In the drawings:

Fig. 1 is a somewhat diagrammatic perspective view illustrating the several parts of the shower compartment as they are being brought together;

Fig. 2 is a perspective view of the assembled shower compartment;

Fig. 3 is a fragmentary sectional view taken on the line 3—3 of Fig. 2;

Fig. 4 is a fragmentary sectional view taken on the line 4—4 of Fig. 2;

Fig. 5 is a fragmentary sectional view taken on the line 5—5 of Fig. 2;

Fig. 6 is a fragmentary sectional view taken on the line 6—6 of Fig. 2, the rear wall of the compartment being shown only part way up;

Fig. 7 is a fragmentary sectional view on the line 7—7 of Fig. 6; and

Fig. 8 is a fragmentary sectional view taken on the line 4—4 of Fig. 2 but showing the position of the parts before the side wall is inserted.

Referring now in detail to the drawings, the present invention is directed to improvements in shower stalls and compartments of the general nature shown in United States Letters Patent No. 1,684,502 issued September 18, 1928. These shower compartments are characterized in that they have a receptor portion 10 of some precast material that is waterproof and not slippery, such, for example, as concrete. The shower compartment embodies a receptor 10, two side walls 11 and 12, and a rear wall 13. The several walls rest upon a raised peripheral ledge 14 of the receptor and fit inside an upstanding peripheral flange or rim 15 that is rigidly attached to and embedded in the receptor 10. The ledge 14 at the top edge preferably slopes inward slightly or at least is just level so that any water on the side walls will run down along the walls and inwardly into the receptor to a drain 16 which is mounted in the bottom of the receptor.

The flange 15 in the present instance comprises a peripheral metallic strip that forms a mold gate for the receptor and carries an angularly disposed strip 17 that is embedded directly in the material of the receptor. This angularly disposed strip 17 has its portion 18 that lies flat against the flange 15 secured thereto in any suitable manner such as by welding. The receptor flange 15 may also desirably have its lower edge turned upwardly and inwardly as indicated at 19 so as to be embedded in the concrete receptor.

The present invention concerns itself primarily with the framework by which the walls 11, 12 and 13 are secured together and held in place so as to form a rigid compartment. Preferably these walls are constructed of a non-metallic material; for example, a highly compressed fibreboard treated with a waterproofing material and of sufficient thickness and strength to withstand normal usage. These materials are available to industrial manufacturers under various trade names such, for example, as "Presd Wood" and "Masonite." The walls are sprayed with a finishing enamel which is baked on so as to give a lasting waterproof finish. In order to mount the three walls in place and tie them together I provide the back wall with two vertically running attaching strips at each side edge. The outer attaching strip comprises an angle iron 20. It will be understood of course that there is an angle iron 20 at each side edge of the back wall 13. There is an inner strip 21 attached to each of the strips 20 by means of screws 22 that extend through the wall 13 and thread into the strip 21. The strip 21 has a back portion which fits flat against the wall 13 and a diagonally extending portion 23 which extends toward the adjacent side wall and toward the front of the compartment. This diagonally running portion 23

of the strip 21 extends toward the forwardly extending portion 20a of the angle iron 20 and terminates in an inturned lip 24 which projects some distance rearwardly and due to the nature of the metallic strip 21 this lip will have considerable resiliency. Also, the portion 23 will have considerable resiliency in the construction of the strip 21. The angle between the back portion of the strip and the portion 23 is made such that the lip 24 is spaced from the portion 20a of the angle iron 20 a distance somewhat less than the thickness of the wall portion 12 when the strips 20 and 21 are secured together on the wall 13. This is clearly illustrated in Fig. 8 when compared with Fig. 4 where the wall 12 is inserted in place.

In inserting the walls 11 and 12 into the narrow pasageways between the lips 24 and the portions 20a of the strips 20 the assembler uses a simple tool of some sort to spread the lip 24 away from the portion 20a sufficiently to get a corner of the side wall started between them. This operation has just been commenced with the wall 12 in Fig. 1. It is of course a simple matter, once the start has been made, to force the entire rear edge of the wall 12 backwardly between the lip 24 and the portion 20a until it abuts against the portion of the strip 21 that lies against the wall 13. The resiliency of the portions 23 and 24 causes them to grip the walls 11 and 12 and form a water-tight seal with the walls. In order to complete the assembly a top frame 25 is placed down over the three walls 11, 12 and 13.

The top frame 25 is composed of two side sections 26 and 27, a rear section 28 of angle iron, and a front section 29 which is channel-shaped in cross section as shown in Fig. 6, the channel opening inwardly and the top wall 30 of the channel having a downturned flange 31. The side and rear portions 26, 27 and 28 of the frame 25 have smaller angle irons 32 secured thereto as by welding so as to form a recess between the outer angle iron and the smaller inner angle iron 32 to receive the top edges of the wall sections 11, 12 and 13. The angle irons 32 are of course cut away at the corners so as to permit the frame to fit down over the vertical corner frame members 20 and 21. In addition they are cut away to receive the top ends of two front stiles 33 and 34 that are secured to the front edges of the wall sections 11 and 12. The lower flange of the channel 29 is also cut away to receive the upper ends of the stiles 33 and 34.

The stiles 33 and 34 are alike in construction except that one is a righthand stile and the other is a lefthand stile. A cross section through the stile 34 is shown in Fig. 5. The stile comprises a channel-shaped steel strip with an angle-shaped steel strip 35 fastened thereto adjacent the outer flange 36 of the stile. The strip 35 has one edge folded over as indicated at 37 so as to press against the wall 12 and hold the wall in place. The folded over edge 37 makes it possible to force the wall 12 into the recess between the angle 35 and the flange 36 after which the wall is held securely against withdrawal because the tendency of the folded over edge 37 is to bite into the wall 12 and oppose its withdrawal. The stile 34 has its inner flange 38 provided with a lip 39 which is used to secure a threshold piece 40 in place. To stiffen the lip 39 the opposite ends of the flange 36 are provided with inturned portions, one of which is indicated at 41 in Fig. 5.

The threshold 40 comprises an inverted U-shaped channel having extensions 42 and 43 which are adapted to overlap the lips 39 of the stiles 33 and 34 and to be secured thereto by means of suitable screws, one of which is indicated at 44 in Fig. 5. The threshold 40 also has its inner bottom edge 45 turned upwardly so as to provide a stronger and more rigid portion to rest upon the receptor ledge 14. It will be understood of course that the flange 15 extends across in front of the threshold.

In order to finish the securing of the parts together after they have been assembled, suitable screws are used to fasten the stiles 33 and 34 and the threshold 40 as well as the lower ends of the the corner frame angle irons 20 to the flange 15. It may also be desirable to fasten the side walls 11 and 12 to the flange 15 by means of small screws that are passed through the walls from the interior and through the flange 15.

From the foregoing description it is believed that the details of construction and the manner of assembling the shower compartment embodying the present invention will be readily apparent to those skilled in this art.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A shower stall of the character described, comprising a receptor base, upstanding rear corner frames, a back wall secured to and connecting the rear corner frames, said rear corner frames having forwardly facing side wall receiving and gripping portions, one of the said portions of each frame having a part lying against the rear wall and affixed thereto and having a somewhat resilient section extending forwardly and outwardly and terminating in a rearwardly turned lip the other of said portions comprising a forwardly extending flange lying outside the walls and extending forwardly beyond said lip and cooperating with the lip to define a side wall receiving passage of less width initially than the side wall it is to receive, securing means affixing the aforesaid part of each frame to the rear wall, the said resilient section concealing said securing means, two side walls inserted in the aforesaid passages, two front corner frames and stiles attached to said side walls, and a rectangular top frame having downwardly facing recesses to receive the top edges of said side walls and rear wall whereby to bind the three walls into a rigid enclosure.

2. A shower stall of the character described, comprising a receptor base, upstanding rear corner frames, a back wall secured to and connecting the rear corner frames, said rear corner frames having forwardly facing side wall receiving and gripping portions, one of the said portions of each frame having a part lying against the rear wall and affixed thereto and having a somewhat resilient section extending forwardly and outwardly and terminating in a rearwardly turned lip the other of said portions comprising a forwardly extending flange lying outside the walls and extending forwardly beyond said lip and cooperating with the lip to define a side wall receiving passage of less width initially than the side wall it is to receive, securing means affixing the aforesaid part of each frame to the rear wall, the said resilient section concealing said securing means, two side walls inserted in the aforesaid passages, two front corner frames and stiles attached to said side walls, and a rectangular top frame having downwardly facing recesses to receive the top edges of said side walls and rear wall whereby to bind the three walls into a rigid enclosure, said shower stall including a threshold

extending between the stiles and fastened thereto.

3. A shower stall of the character described, comprising a receptor base, upstanding rear corner frames, a back wall secured to and connecting the rear corner frames, said rear corner frames having forwardly facing side wall receiving and gripping portions, one of the said portions of each frame having a part lying against the rear wall and affixed thereto and having a somewhat resilient section extending forwardly and outwardly and terminating in a rearwardly turned lip the other of said portions comprising a forwardly extending flange lying outside the walls and extending forwardly beyond said lip and cooperating with the lip to define a side wall receiving passage of less width initially than the side wall it is to receive, securing means affixing the aforesaid part of each frame to the rear wall, the said resilient section concealing said securing means, two side walls inserted in the aforesaid passages, two front corner frames and stiles attached to said side walls, and a rectangular top frame having downwardly facing recesses to receive the top edges of said side walls and rear wall whereby to bind the three walls into a rigid enclosure, said shower stall including a threshold extending between the stiles and fastened thereto, said threshold comprising an inverted U-shaped channel resting on said receptor base.

STANLEY E. NILSON.