Nov. 18, 1930. F. H. LEWIS 1,781,692

SHOWER CABINET

Filed Feb. 1, 1930 2 Sheets-Sheet 1

Fig 1

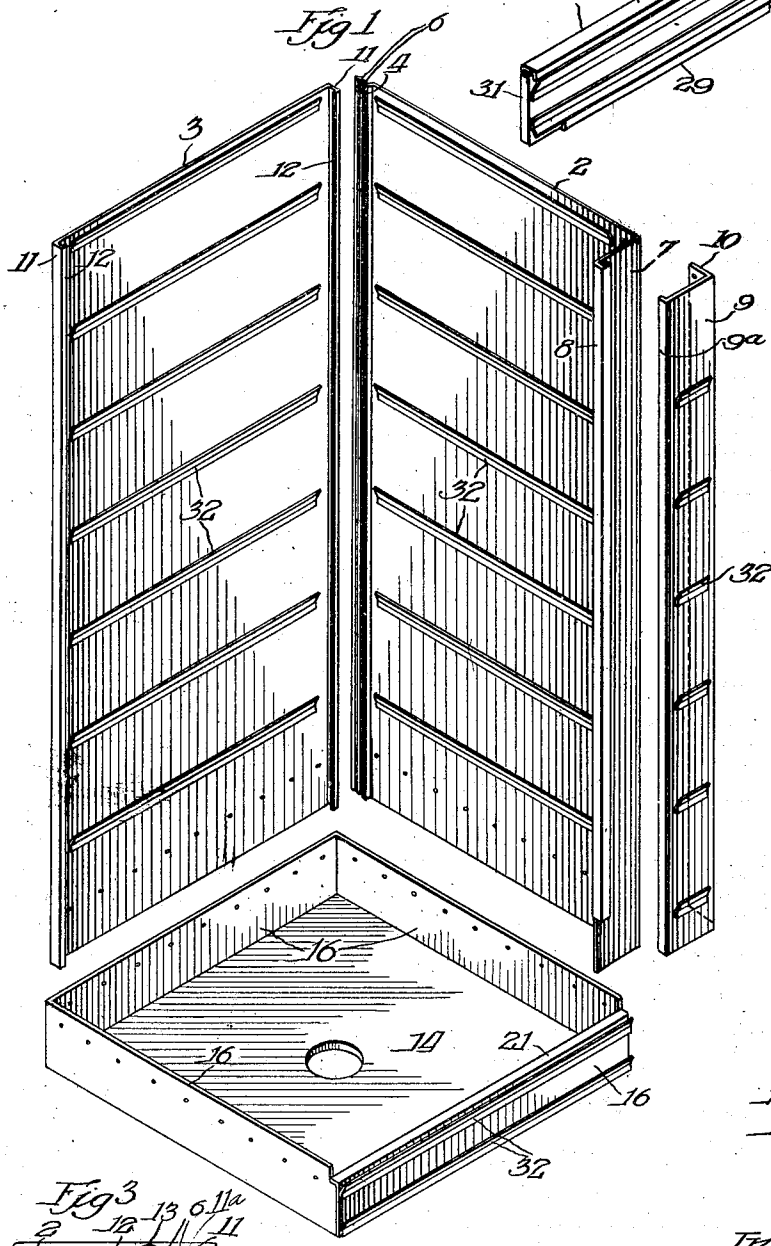


Fig 11

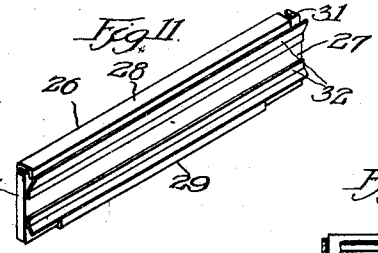


Fig 2

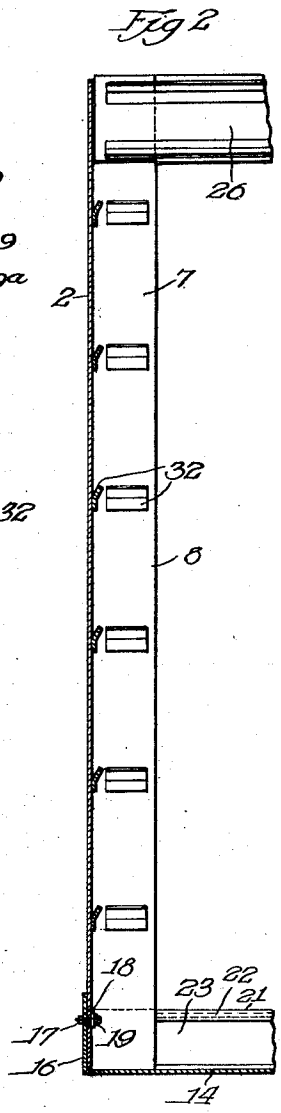
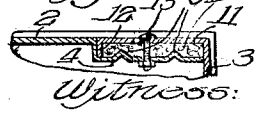


Fig 3



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SHOWER CABINET

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Fig 4

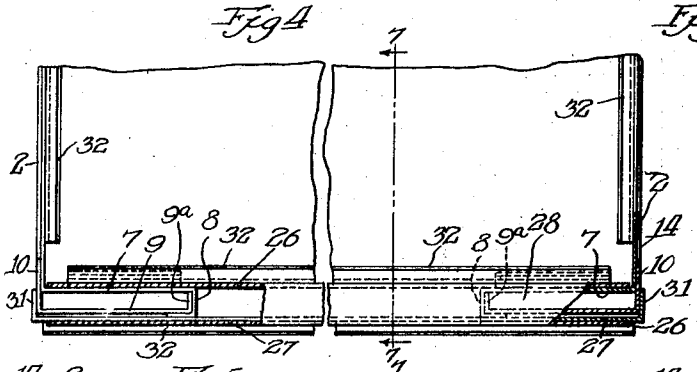


Fig 5

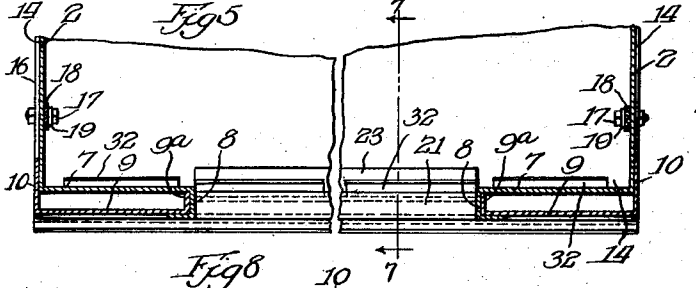


Fig 6

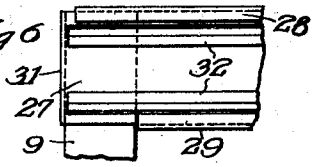


Fig 7

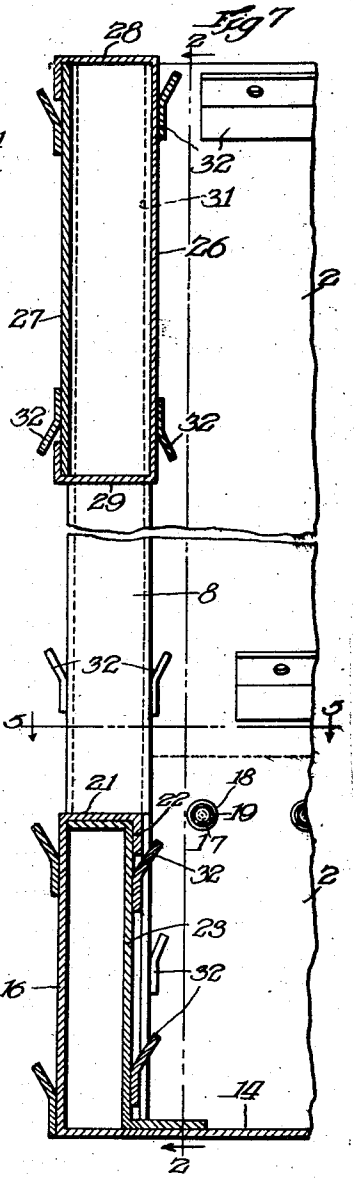


Fig 8

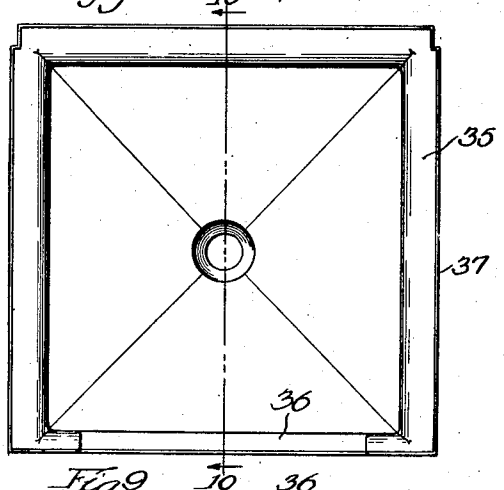


Fig 9

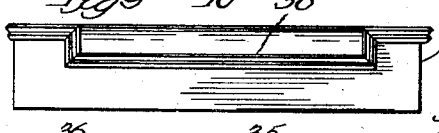
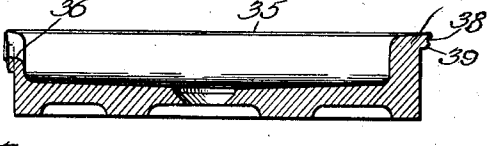


Fig 10



Witness

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UNITED STATES PATENT OFFICE

FREDERICK H. LEWIS, OF CHICAGO, ILLINOIS

SHOWER CABINET

Application filed February 1, 1930. Serial No. 425,105.

This invention relates to shower baths and more particularly to that type which involves the use of a water proof shell or casing adapted to be covered interiorly and exteriorly with tile, cement, terrazzo or the like and is an improvement upon that type of shower bath form disclosed and described in my copending application Serial No. 392,575, filed September 14, 1929.

It is an object of this invention to provide a tight seal between the adjoining sections or casing members in order that the same may be secured together to make a unitary structure which is self-sustaining, rigid and absolutely water proof.

It is a further object of this invention to provide a novel head rail construction which is simple in design and yet rigid adding strength and rigidity to the entire assembly.

It is a further object of this invention to provide a novel threshold or curbing defining the bottom of the entry into the shower cabinet.

It is also an object of this invention to provide an integral receptor arranged and constructed to fit within the bottom pan of the casing.

A better understanding will be had of this invention from a consideration of the following description given in connection with the drawings in which:

Fig. 1 is a perspective of one rear panel, one side panel, one pilaster and the bottom pan sections in their related positions ready for assembly,

Fig. 2 is a section on line 2—2 of Fig. 7,

Fig. 3 is a detail showing the manner of joining the longitudinal marginal edges of the back and side members,

Fig. 4 is a plan view with certain parts removed,

Fig. 5 is a horizontal section through the cabinet just above the pan member,

Fig. 6 is a detail of one end of the head rail and one pilaster,

Fig. 7 is a vertical section through line 7—7 of Figures 4 and 5,

Fig. 8 is a plan view of the receptor,

Fig. 9 is a front elevation of the receptor,

Fig. 10 is a section on line 10—10 of Figure 8; and

Fig. 11 is a perspective detail of the head rail assembly.

Referring particularly to Figure 1 it is seen that the casing or cabinet which in itself forms a water tight self-sustaining compartment and which may be utilized as the base upon which tile or other covering may be placed, is formed of two side panels 2, of which only one is shown and a back connecting panel 3. The side panels 2 are offset inwardly at their rearmost vertical edges as at 4, the offset marginal edges having a pair of outwardly projecting ribs 6 formed therein throughout substantially the entire length of the marginal edges.

The forward portions of the side walls 2 are flanged inwardly as at 7 to form partial front walls and the inner surfaces of the two pilasters defining the entry into the cabinet. The marginal edges of the inturned portions are bent outwardly and back upon themselves to form U-shaped channels 8, the channel 8 being omitted at the lower end where the wall fits within the pan later to be described. The outer section of the pilaster is in the form of a U-shaped member 9 one arm 9^a being considerably shorter than arm 10. When in position the shorter arm 9^a of the member 9 fits within the channel portion 8 and the outer arm 10 lies adjacent the outer surface of the wall 2 as is clearly shown in Fig. 5.

The vertical marginal edges of the rear panel of wall 3 are flanged inwardly as at 11 and then back upon themselves as at 12 to form narrow channel-like edge portions to the panel. When in position the channel-like portion of the wall 3 fits within the offset portions 4 of the side walls. The depth of the channel 11 is the exact width of the offset portion 4 and the depth of the flange 12 is exactly the thickness of the offset portion as is clearly shown in Figure 3 thus making the joint a flush joint as viewed from both sides of the corner. It is to be noted that the structure just described forms a closed pocket between the flange 11 and the marginal edge 4 within which is placed a

gasket 11ª of cork or other compressible sealing material which is compressed tightly between the surfaces 4 and 11 by the fastening bolts 13. The projecting ribs 6 perform the dual function of strengthening the wall 4 and of compressing the gasket tightly at each side of the bolts so as to insure a tight water proof seal.

The bottom edges of the back, side walls and pilasters are inserted within a rectangular pan 14 having an upstanding rim 16 which extends upwardly over the outer surface of the lower edges of the side walls, back and pilasters. The pan is bolted to the other elements by means of bolts 17 which may be sealed to the pan if desired. In order to effect a tight seal between the rim 16 and the lower ends of the walls of the cabinet and particularly to prevent water from seeping through around the bolt holes a cork or other equivalent washer 18 is placed around the bolt under the nut or head as desired and is compressed thereby to make a tight seal. If desired a metal washer 19 may be inserted between the cork washer and the nut in order to prevent the nut from tearing the cork washer. It is thus seen that a tight seal is made at all joints.

In order to make a rigid threshold or curbing at the entrance into the shower cabinet the upper edge of the rim 16 is flanged inwardly as at 21 and then downwardly upon itself as at 22. The channel thus formed by flanges 21 and 22 is reinforced and the space therebehind closed by a Z-bar 23 the upper outwardly extending flange of which fits under the flange 21 and between the rim 16 and the depending flange 22. The lower inwardly projecting flange of the Z-bar lies in contact with the bottom of the pan to which it may be welded or otherwise secured if desired. It is to be noted that the U-shaped channels 8 of the inner edges of the pilasters do not continue the full length of the pilasters but terminate short thereof and rest upon the inturned flange 21. The outer surfaces 9 of the central section of the pilasters are flush with the outer surface of the rim 16 thus making a smooth joint.

At the upper end the pilasters and side walls are secured together and braced by a head rail construction involving two cooperative head rail members 26 and 27 (shown in Fig. 11). The member 26 is formed from a flat strip of sheet material of proper length to fit between the opposed side walls 2 of the cabinet. The longitudinal edges of the member 26 are flanged laterally and then toward each other to form two channel-like edges 28 and 29 along the top and bottom edges of the member 26. The lower channel does not extend the full length of the member but terminates short of each end a distance the exact width of the flanges 7. The width of the channel 28 is sufficient to fit over and cover the top ends of the pilasters while the lower channel 29 fitting between the pilasters maintains them in proper spaced relation. The second member of the head rail 27 is a flat strip of sheet material of sufficient width to fit between the flanges 28 and 29 and of a length equal to that of the member 26 and the thicknesses of the side walls 2, the arms 10. The vertical or short ends of member 27 are flanged over as at 31 and when in position engage the outer surfaces of the arms 10 and prevent the pilasters and side walls from spreading outwardly away from each other.

In assembling the head rail the members 26 and 27 are placed together and inserted between and over the pilasters with the member 26 extending behind the pilasters and the member 27 in front thereof and with the turned flanges 31 of the latter engaging the outer surfaces of the pilasters. It will be seen from the above that with the head rail in place the pilasters cannot be moved either inwardly, outwardly or out of alignment. In order that tile or any suitable covering may be secured to the walls of the cabinet furring strips 32 may be welded to all interior and exterior surfaces wherever desired. These strips also serve as stiffeners for the entire cabinet. In addition the furring strip secured to the inner surface of the Z-bar is preferably made of proper length to fit snugly between the inner lower edges of the flanges 7 and serve to space these flanges and hold the side walls in place particularly while assembling. This particular furring strip determines the door opening.

If desired instead of using a tile, cement, terrazzo, or equivalent material for the base or receptor of the cabinet, a molded receptor may be used as is shown in Figs. 8, 9 and 10. As shown the receptor 35 is molded from any suitable material and is of generally rectangular shape with upstanding side walls one of which is recessed as at 36 to provide a lowered stoop between the pilasters. The upstanding wall is molded with a projecting flange 37 the outer upper surface of which is inclined as at 38 and provided with an annular outwardly projecting shoulder 39. When assembling the receptor in the pan a strip of felt, cork or equivalent material may be placed around the inclined edge 38 and which will contact against the inner surfaces of the side walls and back wall and thus make a water tight joint. The recessed portion below shoulder 39 provides a space for any bolts or nuts which may project through the rim of the pan.

It follows from the above that there is provided a shower bath cabinet or casing which may be used as the form upon which the shower cabinet can be completed and which presents a self-sustaining rigid, leak proof

and economical construction which is simple to assemble.

It is understood that many variations may be made from the details of construction above described without departing from the spirit and scope of this invention as defined in the claims appended hereto.

I claim:

1. In a shower bath casing, a pan having an upturned rim, an inclosure comprising a rear panel, side panels and pilasters extending upwardly from and secured to said upstanding rim, the front edge of said rim being flanged inwardly and downwardly to provide a threshold and a reinforcing member inserted between said flange and the bottom of said pan.

2. In a shower bath casing, a pan having an upturned rim, an inclosure comprising a rear panel, side panels and pilasters extending upwardly from and secured to said upstanding rim, the front edge of said rim being flanged inwardly and downwardly to provide a threshold and a reinforcing strip spaced from said rim and extending between said flange and the bottom of said pan.

3. In a shower bath casing, a pan having an upturned rim, an inclosure comprising a rear panel, side panels and pilasters extending upwardly from and secured to said upstanding rim, the front edge of said rim being flanged inwardly and downwardly to provide a threshold and a Z-shaped reinforcing strip underlying said flange to reinforce the same.

4. In a shower bath casing, a pan, an inclosure comprising a rear panel, side panels and pilasters extending upwardly from and secured to said pan, a head rail construction joining the upper ends of said pilasters comprising a flanged member disposed between and engaging the upper ends of said pilasters, and having portions thereof engaging said pilasters to prevent movements thereof toward and from each other.

5. In a shower bath casing, a pan, an inclosure comprising a rear panel, side panels and pilasters extending upwardly from and secured to said pan, a head rail construction joining the upper ends of said pilasters comprising a flanged member disposed between and engaging the upper ends of said pilasters, a second member interlocking with said flanged member and engaging said pilasters to prevent movements thereof away from each other.

6. In a shower bath casing, a pan, an inclosure comprising a rear panel, side panels and pilasters extending upwardly from and secured to said pan, a head rail construction joining the upper ends of said pilasters comprising a flanged member disposed between and engaging the upper ends of said pilasters, a second member interlocking with said flanged member and engaging the exterior of said pilasters to prevent movements thereof away from each other.

7. In a shower bath casing, a pan, an inclosure comprising a rear panel, side panels and pilasters extending upwardly from and secured to said pan, a head rail construction joining the upper ends of said pilasters comprising a flanged member disposed between and engaging the upper ends of said pilasters, a second member interlocking with said flanged member said second member having flanged ends engaging said pilasters to prevent outward movement thereof.

8. In a shower bath casing, a pan, an inclosure comprising a rear panel, side panels and pilasters extending upwardly from and secured to said pan, a head rail construction joining the upper ends of said pilasters comprising a member having one longitudinal edge flanged to interlock with the upper ends of said pilasters and one longitudinal edge thereof flanged for a portion of its length and disposed between said pilasters to prevent movements toward each other and a second member interlocking with said flanged member and engaging said pilasters to prevent movement thereof away from each other.

9. In a shower bath casing, a pan having an upturned rim, an inclosure comprising a rear panel and side panels extending upwardly from said pan, bolts securing the lower edges of said inclosure to the rim of said pan and sealing washers disposed between the panels and the nuts of said bolts adapted to be compressed by said nuts to make a tight seal around said bolt.

10. In a shower bath casing, a pan having an upturned rim, an inclosure comprising a rear panel and side panels extending upwardly and secured to said pan the marginal edges of one of said adjoining panels being offset inwardly, the opposed marginal edge of the adjoining panel being flanged at right angles and then upon itself whereby the two adjoining marginal edges when joined define a closed chamber therebetween, a gasket in said chamber and means for drawing said adjoining panels and opposing edges together to compress said gasket therebetween.

11. In a shower bath casing, a pan having an upturned rim, an inclosure comprising a rear panel and side panels extending upwardly and secured to said pan the marginal edges of one of said adjoining panels being offset inwardly, the opposed marginal edge of the adjoining panel being flanged at right angles and then upon itself whereby the two adjoining marginal edges when joined define a closed chamber therebetween one of said edges having longitudinal ribs formed therein.

12. In a shower bath casing, a pan having an upturned rim, an inclosure comprising a rear panel and side panels extending upwardly and secured to said pan, one of the marginal edges of each of said side panels being

flanged at right angles and then back upon itself to form a channeled edge and U-shaped pilaster strips having one arm interlocked in said channel and the other arm engaging the side panel to form pilaster sections.

13. In a shower bath casing, a pan having an upturned rim, an inclosure comprising a rear panel, side panels and pilasters extending upwardly from and secured to said upstanding rim, the front edge of said rim being flanged inwardly and downwardly to provide a threshold, a reinforcing member inserted between said flange and the bottom of said pan, and a spacing strip disposed between the inner surfaces of said side walls.

14. In a shower bath casing, a pan having an upturned rim, an inclosure comprising a rear panel, side panels and pilasters extending upwardly from and secured to said upstanding rim, the front edge of said rim being flanged inwardly and downwardly to provide a threshold, a reinforcing member inserted between said flange and the bottom of said pan, and a spacing strip secured to said reinforcing strip, said spacing strip extending between the inner surfaces of said side walls.

15. In a shower bath casing, a pan having an upturned rim, an inclosure comprising a rear panel, side panels, the latter having inturned flanges, and pilasters extending upwardly from and secured to said upturned rim, the front edge of said rim being flanged inwardly and downwardly to provide a threshold, a reinforcing member inserted between said flange and the bottom of said pan, and a spacing strip disposed between the inturned flanges of said side panels.

16. In a shower bath casing, a pan having an upturned rim, an inclosure comprising a rear panel, side panels, the latter having inturned flanges, and pilasters extending upwardly from and secured to said upturned rim, furring strips secured to the inner surfaces of said panels, the front edge of said rim being flanged inwardly and downwardly to provide a threshold, a reinforcing member inserted between said flange and the bottom of said pan, and a furring strip secured to said reinforcing member and disposed between the inner edges of said inturned flanges.

17. In a shower bath casing, a pan having an upturned rim, an inclosure comprising a rear panel and side panels extending upwardly and secured to said pan, the marginal edges of one of said adjoining panels being offset inwardly, the opposed marginal edge of the adjoining panel being flanged at right angles whereby the two adjoining marginal edges when joined define a substantially closed chamber therebetween one of said edges having longitudinal ribs formed therein.

In witness of the foregoing I affix my signature.

FREDERICK H. LEWIS.