Sept. 17, 1935. W. BULTHUIS 2,014,554

SHOWER BATH CABINET

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Fig. 1.

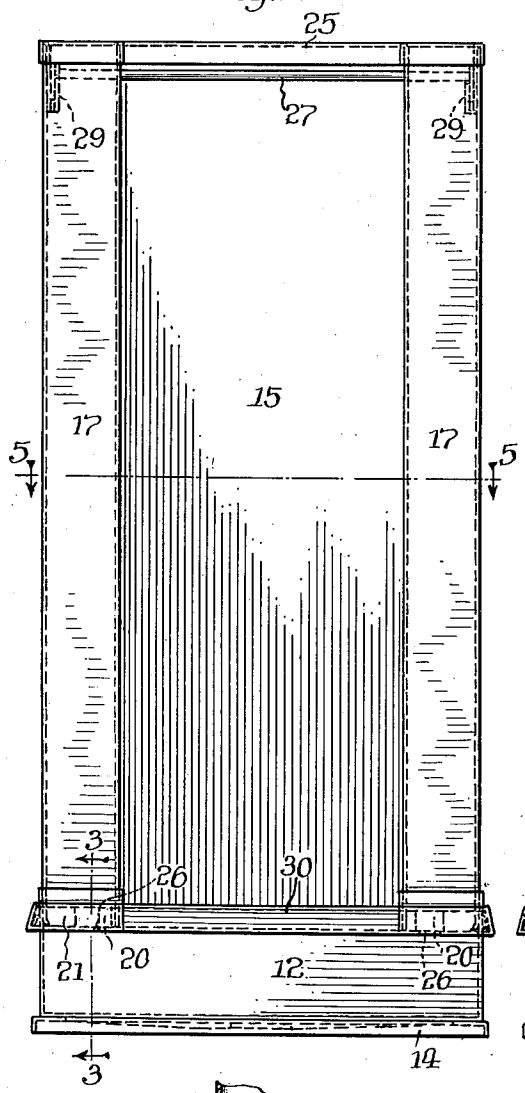

Fig. 2.

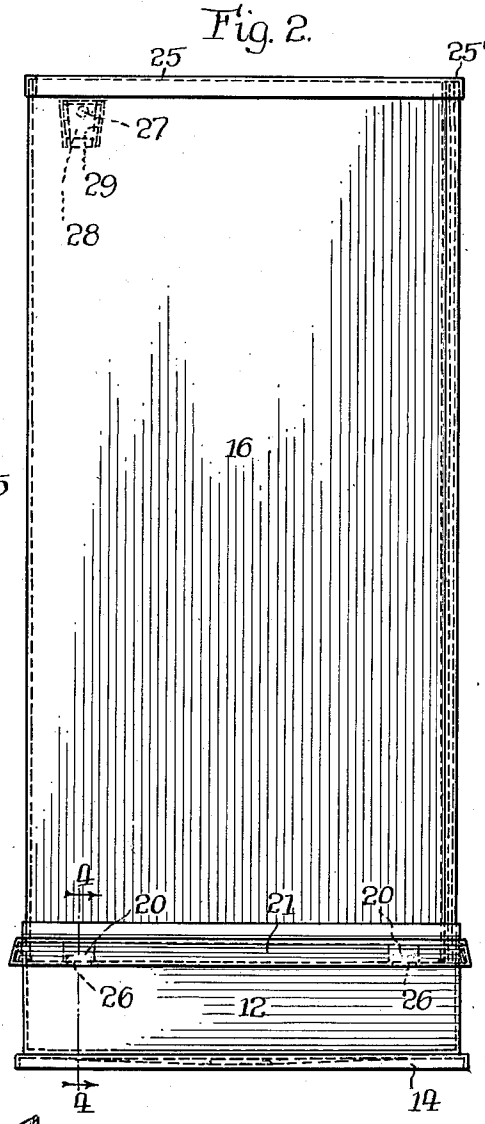

Fig. 3.

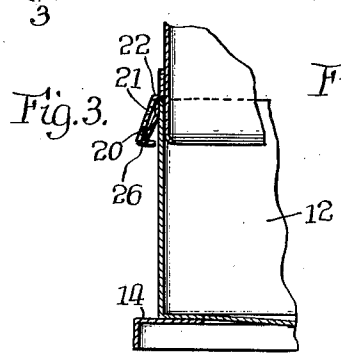

Fig. 4.

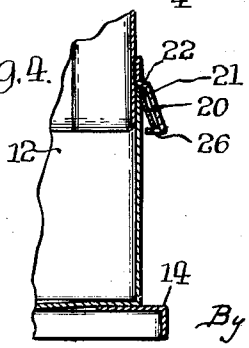

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Fig. 5.

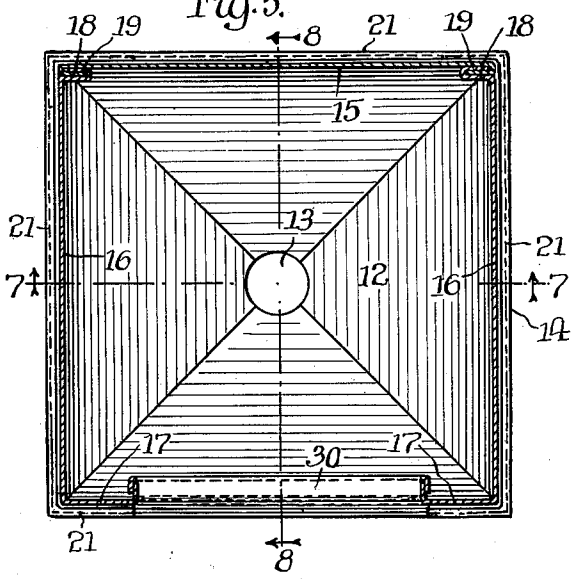


Fig. 6.

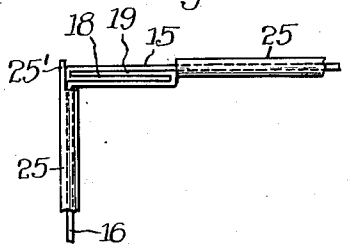


Fig. 7.

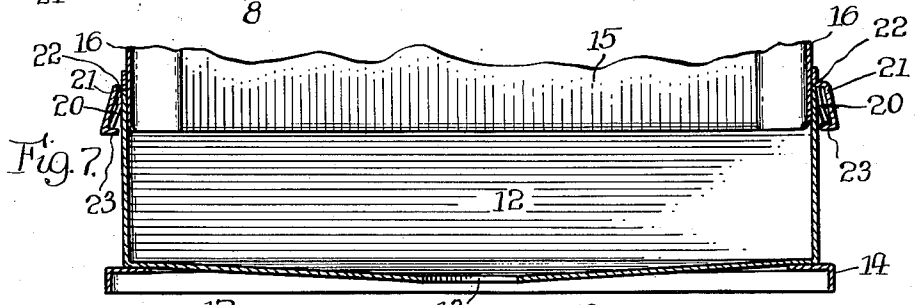


Fig. 8.

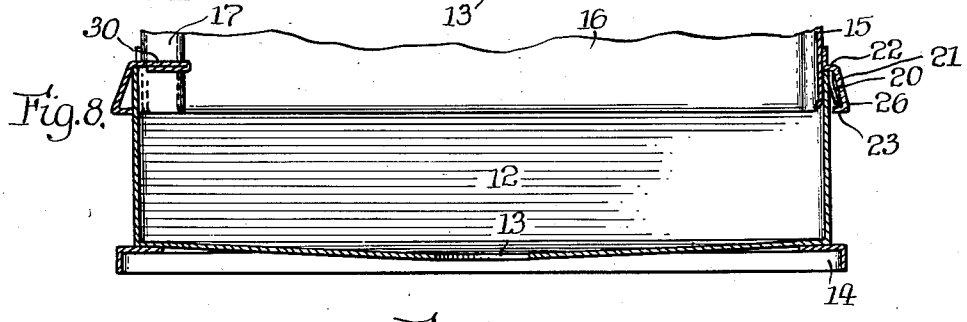


Fig. 9.

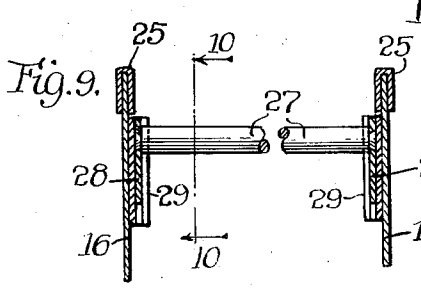
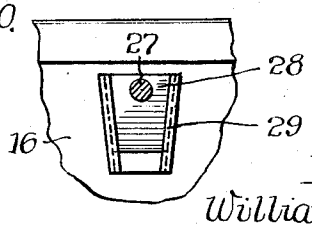


Fig. 10.



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UNITED STATES PATENT OFFICE

2,014,554

SHOWER BATH CABINET

William Bulthuis, Chicago, Ill.

Application August 18, 1933, Serial No. 685,711

8 Claims. (Cl. 4—146)

This invention relates to the art of shower bath cabinets, and the novel features thereof are more especially, although not exclusively, adapted to sheet metal cabinets of the collapsible or knock-down type.

Among the objects of the invention are, to provide a shower bath cabinet of a very simple, inexpensive and efficient construction; to provide a shower bath cabinet, the base and walls of which may be easily assembled and disassembled for shipment and storage, without involving the use of fastening bolts or rivets; to provide an improved means for mounting the walls of the cabinet stall on the base or receptor and for removably locking said walls to the receptor automatically as they are applied; to provide improved means for spacing and bracing the side walls of the stall against inward collapse; and to provide a simple and improved structure of sheet metal base or receptor and support therefor.

Still other objects and attendant advantages of the invention will become apparent to persons familiar with the art from the following detailed description, taken in connection with the accompanying drawings, in which I have illustrated one practical and preferred form of the invention as embodied in a collapsible or knock-down cabinet, and wherein—

Fig. 1 is a front elevation of the cabinet.

Fig. 2 is a side elevation of the same viewed from the right of Fig. 1.

Fig. 3 is an enlarged vertical section taken on the line 3—3 of Fig. 1.

Fig. 4 is an enlarged vertical section taken on the line 4—4 of Fig. 2.

Fig. 5 is a horizontal section looking downwardly, taken on the line 5—5 of Fig. 1.

Fig. 6 is a fragmentary top plan view of one corner of the cabinet.

Fig. 7 is an enlarged vertical section on the line 7—7 of Fig. 5.

Fig. 8 is an enlarged vertical section taken on the line 8—8 of Fig. 5.

Fig. 9 is a detail vertical section, broken out, in the plane of a removable side wall bracing and curtain rod.

Fig. 10 is a fragmentary side elevation, in vertical section through the bracing and curtain rod on the line 10—10 of Fig. 9.

Referring to the drawings, 12 designates as an entirety the base or receptor, which, in the preferred form herein shown, consists simply of a rectangular sheet metal pan having the usual bottom wall tapered to a central drain hole 13. The pan 12 is supported on a rectangular angle iron base frame 14 to which the bottom of the pan is soldered or otherwise secured.

The stall of the cabinet comprises a vertical rear wall 15 and vertical side wall 16 of sheet metal, the front portions of the side walls 16 being extended and suitably bent to form the usual stiles 17 on either side of the entrance and exit opening. Preferably, and as shown in Figs. 5 and 6, the vertical edges of the rear wall 15 and the rear vertical edges of the side walls 16 are formed with inter-fitting hook-shaped extensions 18 and 19, respectively, capable of sliding into and out of engagement with each other either longitudinally or sidewise of the walls, these inter-fitting extensions constituting leak-proof joints and corner reinforcements for the walls located internally of the cabinet. This feature, while preferably employed in my present cabinet, is disclosed and claimed in substantially the same form in my former Patent No. 1,806,668 granted May 26, 1931, and no claim thereto is made herein.

As best shown in Figs. 7 and 8, the lower portions of the walls 15 and 16 and stiles 17 of the stall have a telescoping fit within the vertical walls of the receptor 12. One feature of the present invention resides in the means for supporting the walls of the stall on the receptor walls and for automatically locking the same to the receptor walls as they are applied to the latter. Referring to Figs. 4, 7 and 8, spot-welded or otherwise secured to the outer sides of the receptor walls at the upper edges of the latter are depending outwardly inclined latches, preferably taking the form of flat leaf springs 20. Similarly attached to the lower portions of the walls of the stall are depending catches 21, each of which is formed with an internal shoulder 22 that rests on the top edge of the receptor wall and, at its lower end, with an in-turned lip or hook 23. The latch members 20 may be individual, comparatively narrow steel strips spaced at suitable intervals along the receptor walls, while the catch members 21 preferably take the form of continuous skirt-like members that are co-extensive with the width of the walls and are preferably formed with mitered registering joints, as shown in Fig. 5. The catch members 21 are also continued across the outer sides of the stiles 17, as shown in Figs. 1 and 3, and cooperate with similar latch members 20 on the front wall of the receptor.

With the form of inter-fitting corner joint shown in Figs. 5 and 6, the rear portions of the side walls 16 move inwardly toward each other when disassembling the walls; and, to prevent internal collapse when the structure is assembled, I provide strips on the outer sides of the side walls 16 that overlap the vertical edges of the rear wall 15. A preferred form of such strips is illustrated in Figs. 2 and 6, wherein 25 designates an inverted U-shaped binding strip that is clamped on the top edge of each of the walls 15 and 16 to stiffen the same, and the outer walls of the two strips 25 on the side walls 16 are formed with extensions 25' that overlap the

vertical edges of the rear wall 15, in contact with said vertical edges, so that the walls 16 are thus locked against any possibility of inward collapse of their upper end portions.

One practical method of assembling the structure is as follows. With the receptor standing on the floor, the rear wall 15 of the stall is slid downwardly over the rear wall of the receptor on the inner side of the latter. During this movement, the lips or hooks 23 of the catches 21 press the spring latches 20 inwardly, until the shoulder 22 seats on the upper edge of the receptor wall. When this occurs, the lip or hook 23 has passed the lower ends of the spring latches 20, and the latter at once snap outwardly into locking engagement with the hooks 23, so that the rear wall of the stall is supported upon and locked to the rear wall of the receptor. The two side walls 16, sufficiently raised to carry the extensions 25' above the top edges of the rear wall 15, are then engaged with the latter by sliding the folded extensions 19 of the side walls into the folded extensions 18 of the rear wall, and then pushing said side walls downwardly until the shoulders 22 of their catch members come to rest on the top edges of the side walls of the receptor, at which time the cooperating latch members 20 snap outwardly into locking engagement with the catches 21. Thus the rear wall and the side walls and stiles of the cabinet are all securely mounted upon and automatically locked to the receptor.

To permit disassembling of the walls of the stall and the receptor for shipping and storage purposes, I form in each of the catches 21 narrow slots 26 (Figs. 3 and 4), for the insertion of a tool, such as a screw driver, to push the spring latches 20 back out of engagement with the catches 21, thereby permitting the walls of the stall to be lifted free from the receptor. The side walls 16 may then be separated from the rear wall 15 by either a relative lengthwise or sidewise movement, in an obvious manner.

The upper front portions of the side walls 16 are braced by a removable curtain rod 27 which, in the preferred construction illustrated in Figs. 9 and 10, is equipped at its ends with depending wedge-shaped anchors 28 designed to fit tightly into correspondingly wedge-shaped sockets 29 that are spot welded or soldered to the inner sides of the side walls 16. By this means the curtain rod 27 is held rigidly in place, also strongly bracing and spacing the side walls of the cabinet, but can manifestly be removed by an upward pull or push thereon.

The top edge of the front wall of the receptor 12 between the stiles 17 is equipped with a simple bent metal threshhold or sill member 30 suitably secured thereon as shown in Figs. 5 and 8.

I claim:

1. In a shower bath cabinet, the combination with a receptor, of a sheet metal stall the walls of which at their lower ends are telescopically engaged with the walls of said receptor, and cooperating locking members on the walls of said stall and receptor respectively automatically engaging with each other under an inward telescoping movement of said stall and receptor.

2. In a shower bath cabinet, the combination with a receptor, of a sheet metal stall the walls of which at their lower ends are telescopically engaged with the walls of said receptor, and cooperating locking members on the walls of said stall and receptor respectively, one of said locking members being resiliently flexible whereby it automatically engages with the other locking member in the fully lowered position of the stall on the receptor.

3. In a shower bath cabinet, the combination with a receptor, of a sheet metal stall the walls of which at their lower ends are telescopically engaged within the walls of said receptor, and cooperating locking members on the outer sides of the walls of said stall and receptor respectively automatically engaging with sach other under an inward telescoping movement of said stall and receptor.

4. In a shower bath cabinet, the combination with a receptor having vertical walls, of a sheet metal stall the walls of which at their lower ends are telescopically engaged within the vertical walls of said receptor, depending spring latches on the outer sides of said receptor walls, and cooperating catches on the outer sides of the walls of the stall slidable over said latches as the stall is lowered into the receptor and automatically lockingly engaged by said latches in the fully lowered position of said stall.

5. In a collapsible or knock-down shower bath cabinet, the combination with a receptor having vertical sheet metal walls, of a sheet metal stall the walls of which at their lower ends telescope within the vertical walls of said receptor, depending outwardly inclined spring latches on the outer sides of said receptor walls, and cooperating depending catches on the outer sides of the walls of the stall, said catches formed with internal shoulders adapted to seat on the top edges of the receptor walls and with inturned hooks on their lower ends lockingly engaged by the lower ends of said latches in the fully lowered position of said stall.

6. A specific form of claim 5, wherein the catches are formed with openings opposite the latches to admit a tool to press the latches out of engagement with the hooks of the catches when disassembling the cabinet.

7. In a collapsible or knock-down shower bath cabinet, a stall comprising vertical sheet metal side and rear walls formed on their meeting vertical edges with separable inter-fitting extensions disposed parallel with said rear wall and locking said side walls against outward displacement, and separate strips on the top edges of said side walls respectively overlapping the vertical edges of said rear wall and serving through contact with said edges to lock said side walls against internal collapse.

8. In a collapsible or knock-down shower bath cabinet, a stall comprising vertical sheet metal side and rear walls formed on their meeting vertical edges with separable inter-fitting extensions disposed parallel with said rear wall and locking said side walls against outward displacement, and separate binding strips on the top edges of said side walls respectively, said strips formed with extensions overlapping the vertical edges of said rear wall and serving through contact with said edges to lock said side walls against internal collapse.

WILLIAM BULTHUIS.