Nov. 16, 1965 E. T. HOPPER 3,217,668

SHOWER STOOL

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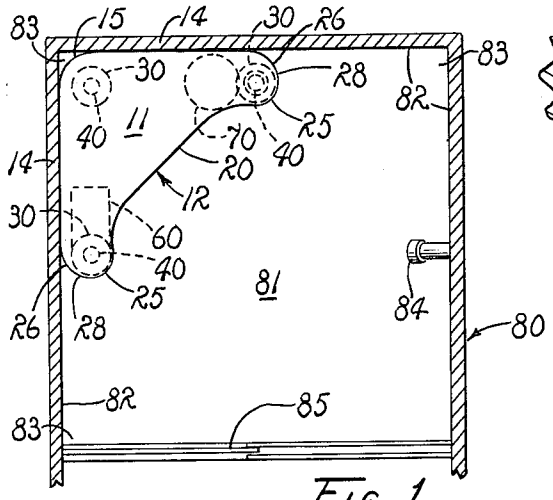


FIG. 1.

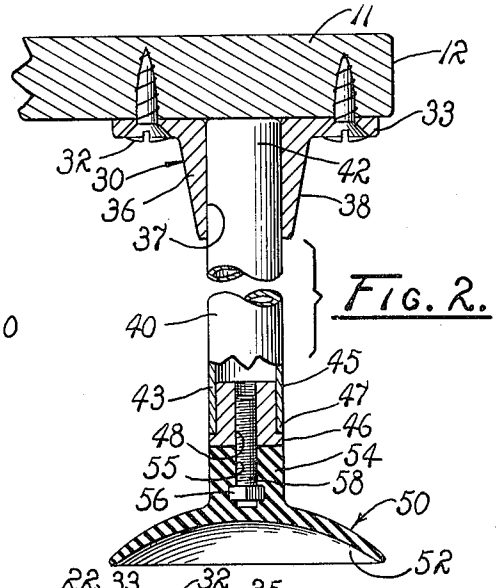


FIG. 2.

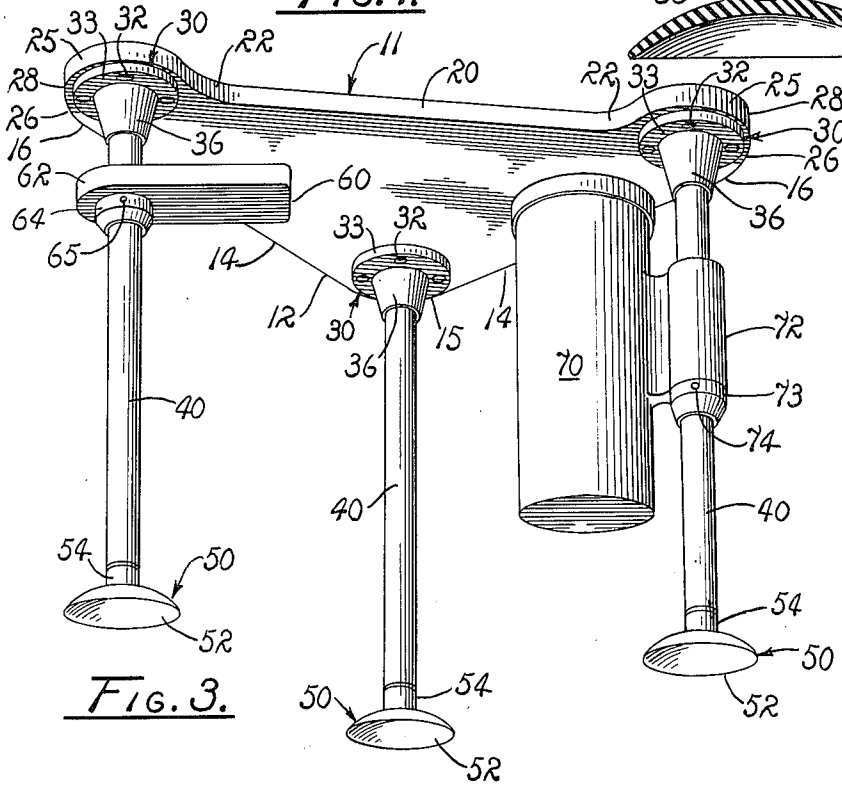


FIG. 3.

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SHOWER STOOL

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The present invention relates to a shower stool and more particularly to such a stool providing improved stability when disposed in a shower cabinet and without appreciably reducing the usable space therein. While the stool of the present invention is shown and described in connection with a shower cabinet, it will be readily apparent that it is not restricted to such environment and may be used with benefit in many areas of the home and elsewhere.

Relatively small stools are frequently utilized in shower cabinets by persons who wish to enjoy a more leisurely shower; and by invalids, physically handicapped and aged persons who are unable easily to climb in an out of bathtubs without assistance. When so equipped, such showers provide the maximum accessibility and convenience. However, most conventional stools are too large and bulky for showers and reduce the usable floor space excessively. These stools present a serious safety hazard by impairing safe ingress and egress. When made smaller, such stools are not stable adequately to support such invalid, handicapped or aged persons.

Therefore, it is an object of the present invention to provide an improved stool for shower cabinets and the like.

Another object is to provide such an improved stool which is capable of placement in a shower cabinet without appreciably reducing the usable space therein.

Another object is to provide a stool of the character described which provides improved stability over conventional stools for the purpose.

Another object is to provide an improved stool which may be easily releasably mounted in non-sliding precisely conforming relation to the corner of a shower cabinet.

Another object is to provide an improved stool which effectively resists tipping irrespective of weight distribution thereon.

Another object is to provide such an improved stool which is portable, quickly and easily assembled and disassembled, and may be compactly stored in a minimum of space.

Other objects and advantages of the present invention will become more clearly apparent upon reference to the following description in the specification.

In the drawing:

FIG. 1 is a top plan view of the stool of the present invention shown disposed within the corner of a shower cabinet.

FIG. 2 is a fragmentary, somewhat enlarged, transverse vertical section through a support leg assembly of the stool, taken on line 2—2 of FIG. 1.

FIG. 3 is a perspective of the stool showing the underside, support legs, and a plurality of shower accessories mounted thereon.

Referring more particularly to the drawing, the stool embodying the principles of the present invention provides a substantially flat seat **11** of a rigid material such as plastic, lightweight aluminum or wood provided with an enameled or other durable surface. As best shown in FIG. 1, the seat has a substantially triangular configuration bounded by a continuous marginal edge **12**. The

marginal edge includes converging side edges **14** which are connected by an arcuate rear corner **15**. The side edges have opposite forwardly and inwardly curved edge portions **16**. The marginal edge **12** of the seat further includes a transversely disposed front edge **20** having opposite end portions **22**. The end portions are individually continuous with a pair of opposite forwardly extended substantially circular front corners **25** which are also individually continuous with the forward edges **16** of the side edges **14**. The forward edge portions **16** of the side edges **14** and their respective adjacent edge portions of the front corners **25** thereby form a compound curvature **26** inwardly extended from the plane of the side edges to form hand gripping areas **28**.

As best shown in FIG. 2, a plurality of leg mounting flanges **30** are rigidly connected to the underside of the seat **11** in concentric relation to the marginal edges **12** of the front and rear corners **25** and **15** by a plurality of screws **32**. The screws are extended through an annular ring portion **33** of the flanges into the seat. The flanges include a concentrically outwardly extended tubular portion **36** having a bore **37** and an outwardly tapering frustoconical periphery **38**.

A plurality of elongated tubular legs **40** provide upper ends **42** individually press-fitted into the bores **37** of the flanges **30**. The legs also include opposite lower ends **43** which rigidly individually receive in press-fitted relation a plurality of plugs **45**. Each of the plugs has an enlarged diameter flange portion **46** providing a shoulder **47** abutted against the end of the tubular wall of the leg. The plug also includes a concentric screw-threaded bore **48** therethrough.

A plurality of suction cups **50** of resiliently flexible material, such as rubber or the like, provide a lower gripping portion **52** and an upper shank portion **54**. Each suction cup includes an elongated bore **55** therein which terminates in registry with an internally threaded nut **56** embedded within the shank portion of the cup. An elongated screw-threaded stud **58** is screw-threadably received by the nut **56** and at its opposite end extends outwardly from the shank portion of the suction cup. The stud is screw-threadably received within the screw-threaded bore **48** of the plug **45** rigidly to mount the suction cup upon the lower end of the leg **40**. As evident in FIG. 1, the front edge **20** of the seat **11** is disposed in a plane spaced rearwardly and in substantially parallel relation to a plane passing through the axes of the legs **40** mounted at the front corners **25** of the seat. It is also noted that the legs are spaced radially inwardly in substantially concentric relation to the marginal edge **12** of their respective corners of the seat so as readily to accommodate the arcuate coving usually employed between the floor and the side walls of a shower cabinet.

As best shown in FIG. 3, a soap dish **60** provides a mounting portion **62** journaled about one of the legs **40** at one of the front corners **25**. The soap dish is elevationally positionable thereon by a stop collar **64** removably secured to the leg by a setscrew **65**. An elongated cylindrical towel container **70** provides a mounting portion **72** journaled on the opposite front leg of the seat. The container is elevationally positionable by a stop collar **73** releasably positioned on the leg by a setscrew **74**. Both the soap dish and the towel container can be swung outwardly from their retracted dashed line positions of FIG. 1 beneath the seat **11** to accessible positions for use within the shower cabinet.

The stool of the present invention is illustrated within a shower cabinet generally indicated by the reference numeral 80 in FIG. 1. The cabinet provides a supporting floor 81 having a plurality of side walls 82 forming a plurality of corners 83. One wall mounts a shower head 84 and a sliding door 85 is provided in an adjacent wall.

Operation

The operation of the described embodiment of the subject invention is believed to be clearly apparent and is briefly summarized at this point. Before assembly of the stool of the present invention in the previously described manner, the several components thereof are adapted to be compactly disposed within a minimum of space for shipping and storage purposes. After assembly, the stool is placed within one of the corners 83 of the shower cabinet 80 with the side edges 14 of the seat 11 intimately engaging the adjacent side walls 82 thereof. A downward force is applied against the seat to depress the suction cups 50 to expel air therefrom so as to grip the floor 81 and constrain the stool in the desired position. It is noted that the door 85 of the shower is not restricted in any way by such positioning of the stool. Furthermore, the usable space within the shower cabinet is not appreciably reduced by such positioning of the stool therein.

During use, the soap dish 60 and the towel container 70 may be swung outwardly from beneath the seat 11 at any time and returned to their retracted positions beneath the stool so as not to interfere with the user thereon. A person using the stool of the present invention may need to adjust his position on the stool. This is easily accomplished by the person grasping the hand gripping areas 23 provided adjacent to the front corners 25 of the seat. Furthermore, as previously noted, the front edge 20 of the seat is spaced rearwardly from a plane passing through the axes of the front legs 40 so that even with a heavy concentration of weight along the front edge, the outboard positioning of the legs effectively resists any tendency for the stool to tip.

In view of the foregoing, it is readily apparent that the structure of the present invention has provided an improved stool particularly suited to use in shower cabinets which is easily disposed therein without appreciably reducing the usable space within the cabinet. Furthermore, the support legs for the stool are inset from the marginal edge thereof so as to accommodate coving and other obstructions closely adjacent to the side walls of the shower cabinet. Also, the gripping areas provide dependable hand holds without protruding unsightly and dangerous handles.

Although the invention has been herein shown and described in what is conceived to be the most practical and preferred embodiment, it is recognized that departures may be made therefrom within the scope of the invention, which is not to be limited to the details disclosed herein but is to be accorded the full scope of the claims so as to embrace any and all equivalent devices and apparatus.

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

1. A stool comprising a substantially rigid seat of generally triangular configuration when viewed in plan having a pair of converging edges providing a corner for the stool therebetween, and a transversely disposed edge providing outwardly extended corners adjacent to said converging edges; and a plurality of support members releasably mounted in depending relation from the corners of the seat with the members at the corners between the transverse edge and the converging edges having axes disposed in a common plane outwardly spaced in substantially parallel relation to the transverse edge of the seat to resist tipping of the stool.

2. A stool comprising a substantially rigid seat of generally triangular configuration when viewed in plane having rearwardly converging side edges, a front edge, substantially forwardly extended front corners and a rearwardly disposed arcuate rear corner; and a plurality of

support legs releasably mounted in depending relation from the corners of the seat with the legs at the front corners having axes disposed in a common plane forwardly spaced in substantially parallel relation to the front edge of the seat to resist forward tipping of the stool.

3. A stool comprising a substantially rigid seat of generally triangular configuration when viewed in plan having rearwardly converging side edges providing inwardly curving front ends, a front edge, substantially circular forwardly extended front corners continuous with said front ends of said side edges individually providing edge portions of compound curvature outwardly along said front corners of the seat, and a rearwardly disposed rear corner between said converging side edges of the seat; and a plurality of support legs releasably mounted in depending relation from the corners of the seat with the legs at the front corners having axes disposed in a common plane forwardly spaced in substantially parallel relation to the front edge of the seat to resist forward tipping of the stool.

4. A stool comprising a substantially rigid seat of generally triangular configuration when viewed in plan adapted to be disposed between the adjacent walls in the corner of a shower cabinet or the like and having rearwardly converging side edges adapted to engage the adjacent walls of such a shower cabinet and providing inwardly curving front ends, a front edge, substantially circular forwardly extended front corners continuous with said front ends of said side edges individually providing compound curving edge portions outwardly along said front corners of the seat to form hand gripping areas spaced from the adjacent walls of the shower cabinet, and a rearwardly disposed rear corner between said converging side edges of the seat; and a plurality of support legs releasably mounted in depending relation from the corners of the seat with the legs at the front corners having axes disposed in a common plane forwardly spaced in substantially parallel relation to the front edge of the seat to resist forward tipping of the stool incident to a concentration of weight along said front edge.

5. A stool comprising a substantially rigid seat having an outer margin of generally triangular configuration when viewed in plan adapted to be disposed between the adjacent walls in the corner of a shower cabinet or the like and having rearwardly converging side edges adapted to engage the adjacent walls of such a shower cabinet and providing inwardly curving front ends, a front edge, substantially circular forwardly extended front corners continuous with said front ends of said side edges individually providing compound curving edge portions outwardly along said front corners of the seat to form hand gripping areas spaced from the adjacent walls of the shower cabinet, and a rearwardly disposed rear corner between said converging side edges of the seat; and a plurality of support legs releasably mounted in depending relation from the corners of the seat in inwardly spaced relation to said outer margin thereof with the legs at the front corners having axes disposed in a common plane forwardly spaced in substantially parallel relation to the front edge of the seat to resist forward tipping of the stool incident to a concentration of weight along said front edge.

6. A stool comprising a substantially rigid seat having an outer margin of generally triangular configuration when viewed in plan adapted to be disposed between the adjacent walls in the corner of a shower cabinet or the like and having rearwardly converging side edges adapted to engage the adjacent walls of such a shower cabinet and providing inwardly curving front ends, a front edge, substantially circular forwardly extended front corners continuous with said front ends of said side edges individually providing compound curving edge portions outwardly along said front corners of the seat to form hand gripping areas spaced from the adjacent walls of the

shower cabinet, and a rearwardly disposed rear corner between said converging side edges of the seat; a plurality of support legs having lower ends and opposite upper ends releasably mounted in depending relation from the corners of the seat in inwardly spaced relation to said outer margin thereof with the legs at the front corners having axes disposed in a common plane forwardly spaced in substantially parallel relation to the front edge of the seat to resist forward tipping of the stool incident to a concentration of weight along said front edge; floor gripping members mounted on the lower ends of the legs; and shower accessory means pivotally mounted on said legs at the front corners of the seat for swinging movement between outwardly disposed accessible positions and retracted positions sheltered beneath the seat.

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