

May 5, 1959

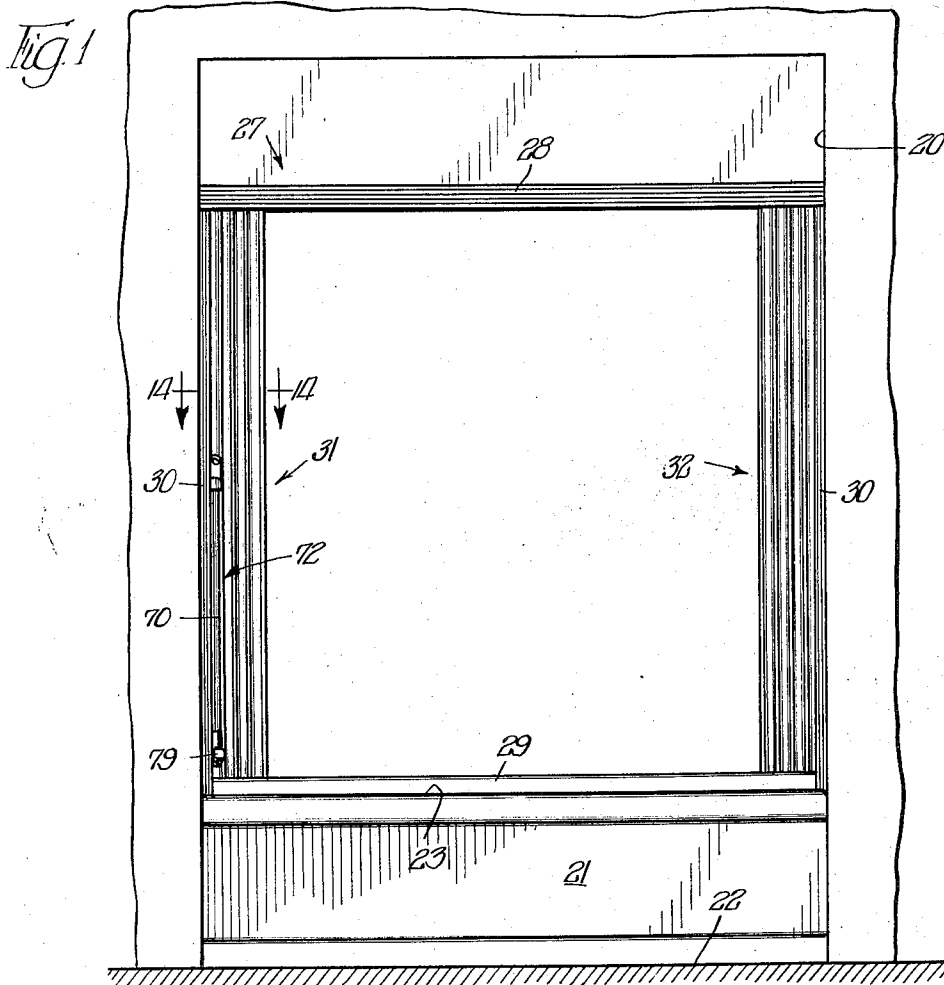
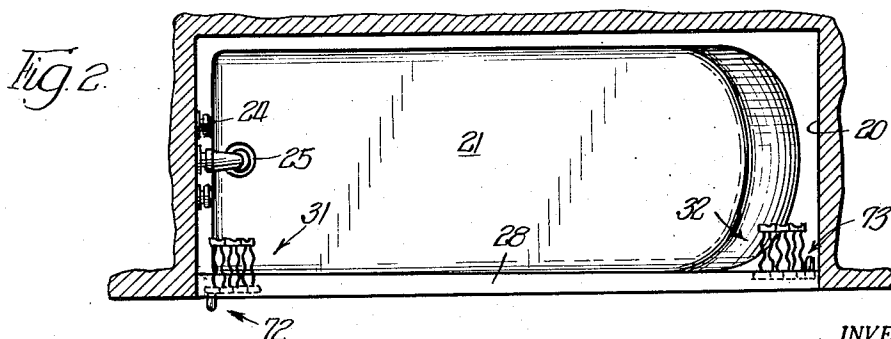
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2,885,000

FOLDABLE AND SLIDABLE TUB SHOWER DOOR

Filed June 20, 1956

6 Sheets-Sheet 1



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FOLDABLE AND SLIDABLE TUB SHOWER DOOR

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6 Sheets-Sheet 2

Fig. 3

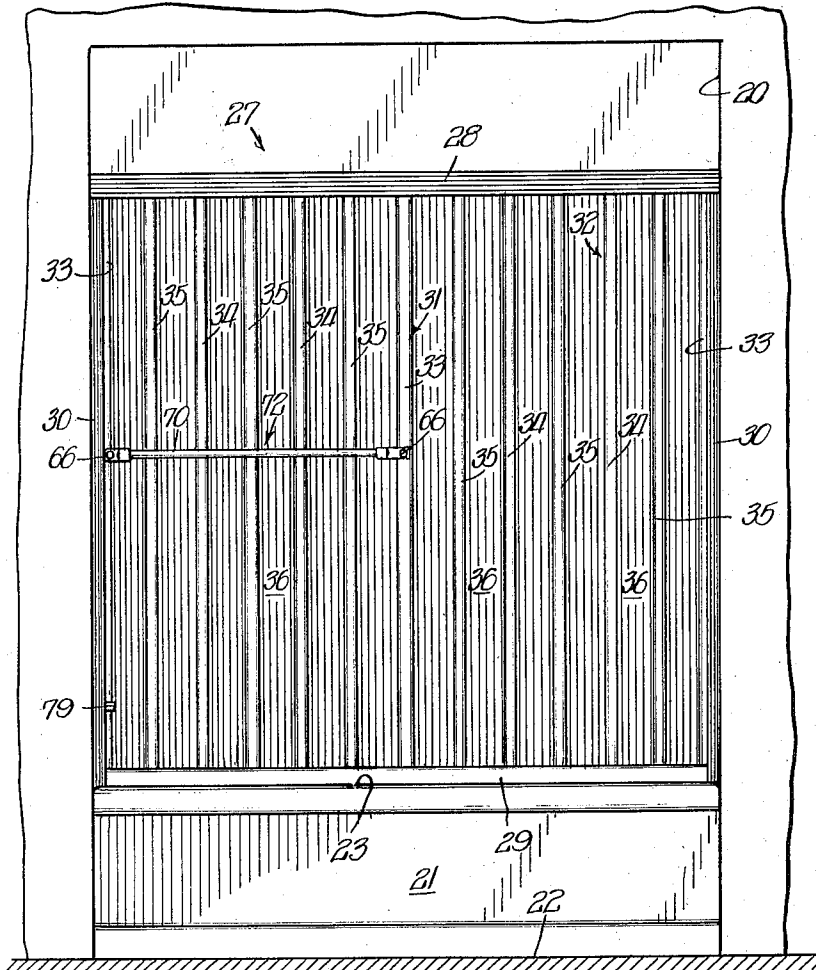
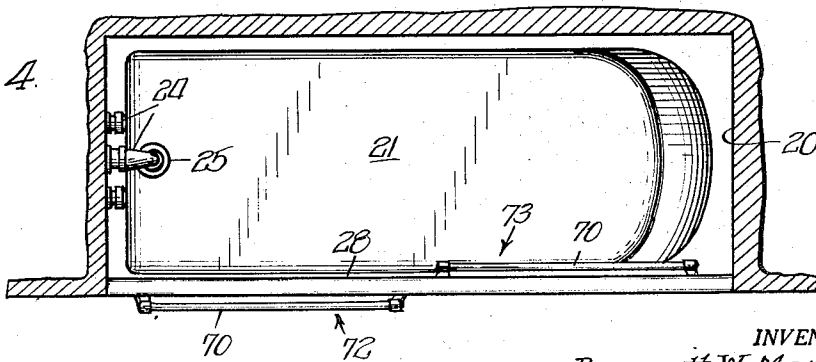


Fig. 4



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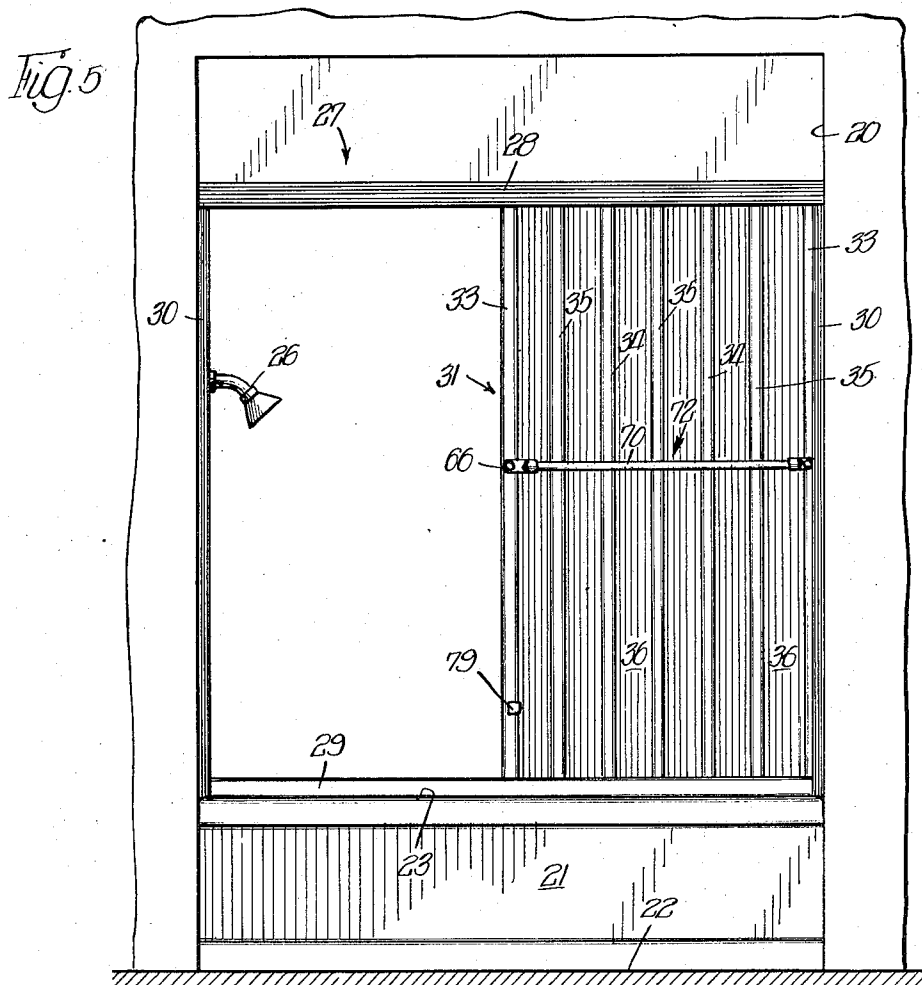
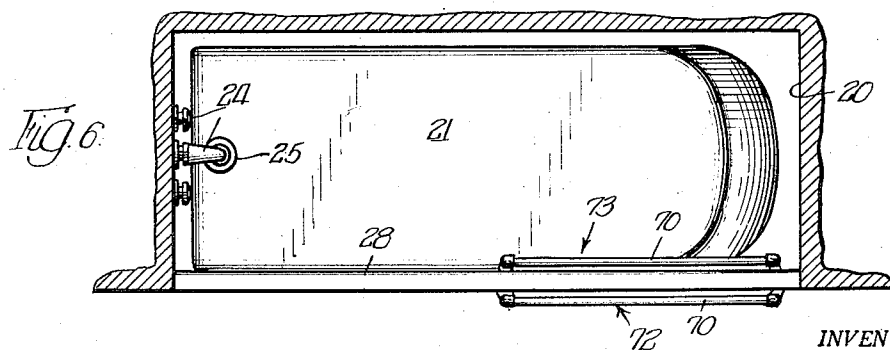
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FOLDABLE AND SLIDABLE TUB SHOWER DOOR

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6 Sheets-Sheet 3



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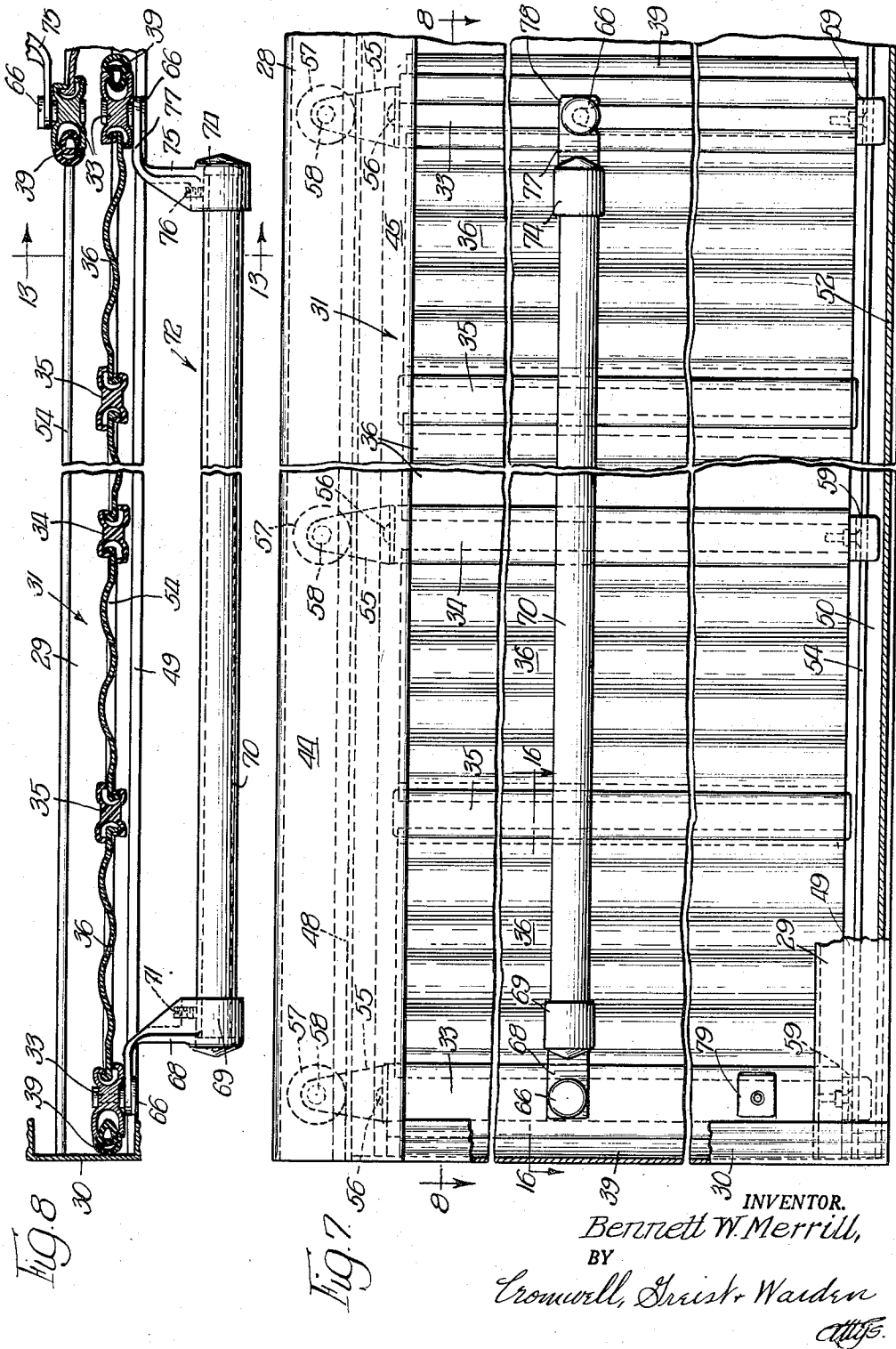
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FOLDABLE AND SLIDABLE TUB SHOWER DOOR

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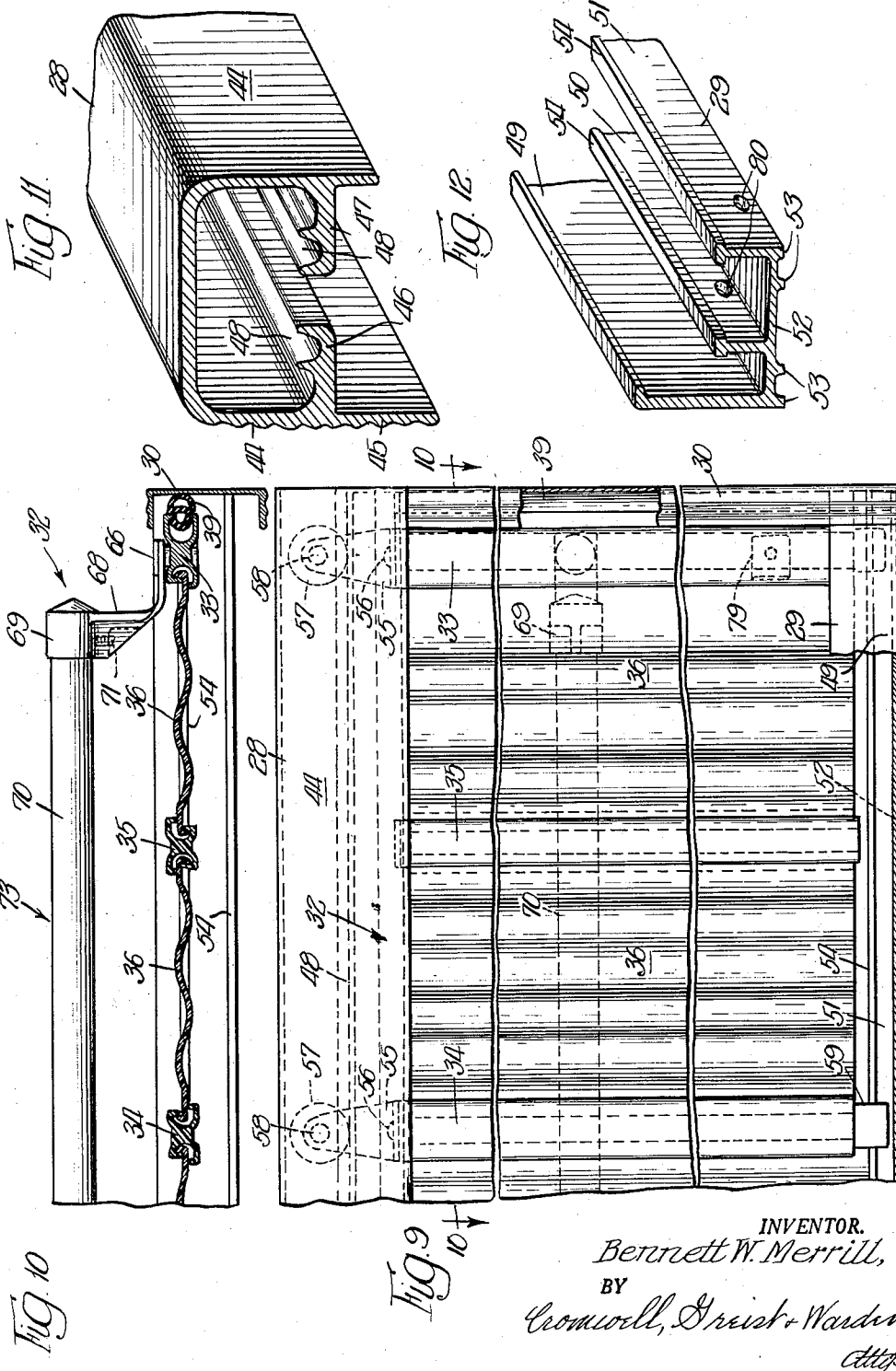
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FOLDABLE AND SLIDABLE TUB SHOWER DOOR

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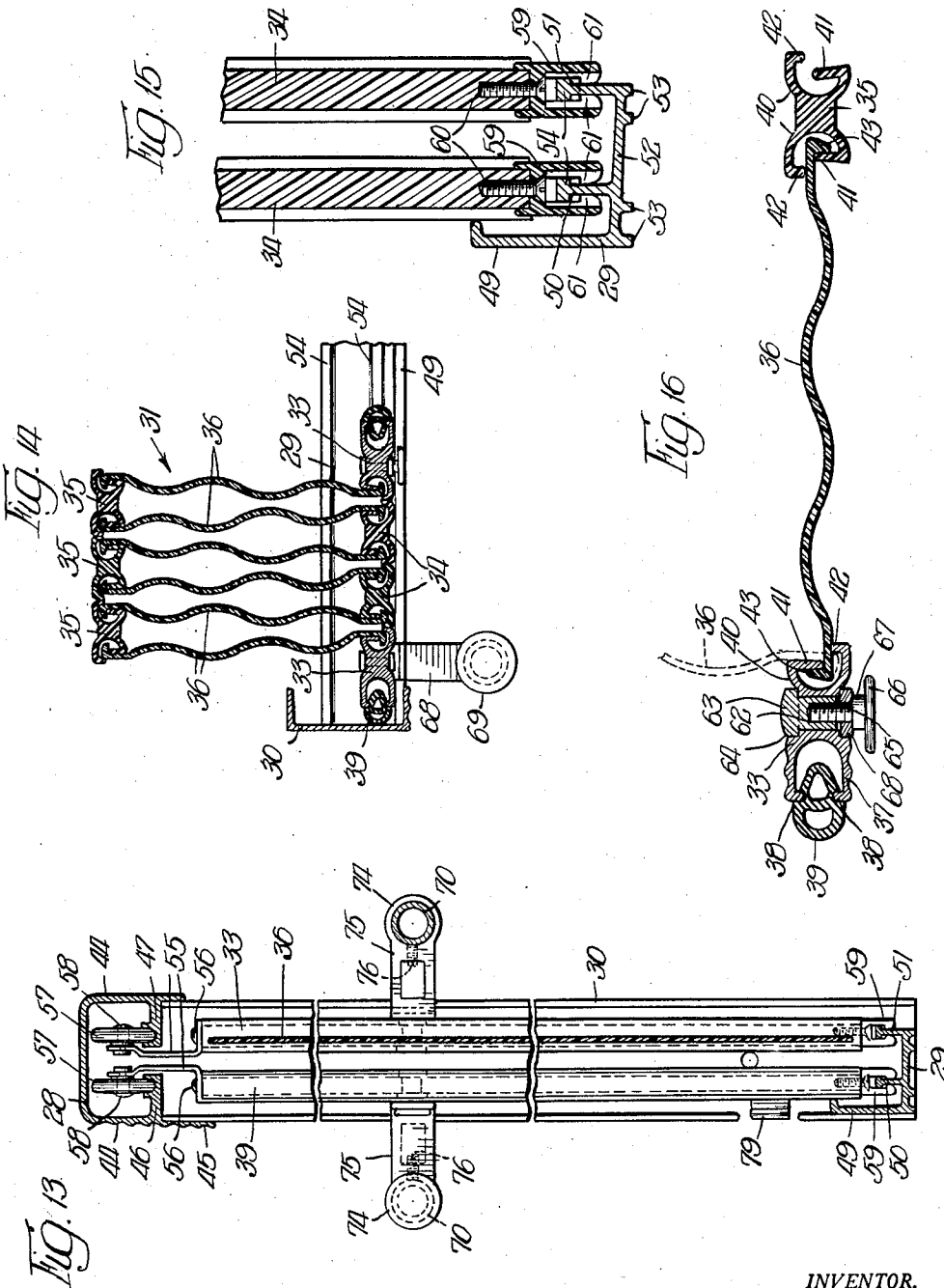
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FOLDABLE AND SLIDABLE TUB SHOWER DOOR

Filed June 20, 1956

6 Sheets-Sheet 6



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FOLDABLE AND SLIDABLE TUB SHOWER DOOR

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Application June 20, 1956, Serial No. 592,591

13 Claims. (Cl. 160—118)

The present invention is directed to a new and improved form of door assembly particularly adapted for use with a shower bath, the assembly including the use of foldable and slidable door sections each of which are independently movable into and out of side-by-side relation.

It is an object of the present invention to provide a new and improved enclosure assembly particularly adapted for use as a tub shower door, the assembly being formed from more than one foldable and slidable door section mounted in a frame, the door sections being readily removable into and out of side-by-side relation when in their unfolded condition as a result of being mounted on separate track means, the entire assembly being of uncomplicated design and capable of inexpensive manufacture for use over an extended period of time.

Another object is to provide a combination sliding and folding bathtub and shower enclosure which is self-contained within a framework readily adapted for attachment to walls or supports associated with a bathtub or shower, the assembly including a plurality of readily foldable and slidable door sections formed from relatively rigid lightweight panels which are hingedly interconnected, the assembly being provided with bracing means which cooperate with each of the door sections to restrain the same from folding during movement of the sections into and out of side-by-side relation with one another.

Still another object is to provide a new and improved foldable and slidable tub shower door assembly which utilizes door sections formed from hingedly interconnected relatively rigid panels, each of the door sections being so designed as to fold in accordion fashion, the panels from which each of the door sections are formed folding relative to one another to form unidirectional box-like folds, each of the door sections being provided with bracing means in the form of an outwardly spaced handle which is pivotally mounted at one of its ends so as to swing into a vertical plane out of operative positioning with respect to the door section carrying the same, the other end of each of the handles being detachably engageable with a portion of the door section to fix the panels forming the same in an extended relation to prevent folding of the door section during movement of the same, each of the door sections being movable into and out of side-by-side relation thereby allowing variable arrangements between the door sections to provide the assembly with great utility.

Other objects not specifically set forth will become apparent from the following detailed description made in conjunction with the drawings wherein:

Fig. 1 is an elevation of the enclosure assembly of the present invention mounted in its operative position with a shower tub unit and illustrating the assembly in its opened condition with the door sections carried thereby being folded;

Fig. 2 is a top plan view of the arrangement of Fig. 1;

Fig. 3 is an elevation similar to Fig. 1 illustrating the door sections of the assembly in their expanded or un-

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folded condition and arranged to completely enclose the shower tub unit;

Fig. 4 is a top plan view of the arrangement of Fig. 3;

Fig. 5 is an elevation similar to Fig. 1 illustrating still a further use of the door sections of the assembly;

Fig. 6 is a top plan view of the arrangement of Fig. 5;

Fig. 7 is an enlarged fragmentary elevation of one of the door sections of the assembly mounted in its operative position within the framework of the same;

Fig. 8 is a sectional view taken generally along line 8—8 of Fig. 7;

Fig. 9 is an enlarged fragmentary elevation of the other door section of the assembly illustrating the mounting of the same within the framework;

Fig. 10 is a sectional view taken generally along line 10—10 of Fig. 9;

Fig. 11 is an enlarged fragmentary perspective of the top frame member of the assembly;

Fig. 12 is an enlarged fragmentary perspective of the bottom frame member of the assembly;

Fig. 13 is an enlarged fragmentary vertical section of the assembly taken generally along line 13—13 of Fig. 8;

Fig. 14 is an enlarged fragmentary section taken generally along line 14—14 of Fig. 1;

Fig. 15 is an enlarged fragmentary vertical section of one form of hinge post used by each of the door sections and illustrating the manner in which these posts are mounted relative to the bottom frame member of the assembly; and

Fig. 16 is an enlarged fragmentary section taken generally along line 16—16 of Fig. 7 illustrating the manner in which the relative rigid panels of the door sections are hingedly attached to adjacent hinge posts and cooperatively function with the same in allowing the door sections to fold.

In Figs. 1—6 a shower tub alcove 20 of standard design and arrangement is illustrated as having received therein a conventional type of tub 21 resting on a floor 22 and received within the alcove 20. The tub 21 is provided with a smooth rounded front edge 23 and one of the walls of the alcove 20 carries the plumbing fixtures 24 positioned over a conventional drain outlet 25 carried in a forward bottom portion of the tub 21. As shown in Fig. 5 the wall of the alcove 20 carrying the fixtures 24 is also provided with a shower fixture 26 spaced above the tub 21 in the known manner.

Positioned in the forward open portion of the alcove 20 and mounted between the side walls of the alcove and the forward edge 23 of the tub 21 is an enclosure assembly generally designated by the numeral 27. The enclosure assembly 27 is formed from a top frame member 28, a bottom frame member 29 and two laterally spaced side frame members or jamb posts 30. The bottom frame member 29 is mounted on the top edge 23 of the tub 21, the side frame members 30 are mounted on the side walls of the alcove 20 near the outer edges thereof and the top frame member 28 extends across the top portion of the alcove 20 in resting engagement with the side frame members 30. The frame members 28, 29 and 30 carry therebetween two door sections generally designated by the numerals 31 and 32. The various positions of the door sections 31 and 32, as shown in Figs. 1—6, will subsequently be described in connection with the operative uses of the enclosure assembly 27.

Each of the door sections 31 and 32 is identical in construction and is generally formed from a plurality of hinge posts which are hingedly interconnected by relatively rigid panels adapted to be folded relative to one another upon the folding of a door section to form unidirectional box-like folds, the panels moving laterally of the frame members 28, 29 and 30 and inwardly of the outer edges of the alcove 20 and tub 21. As particularly

illustrated in Figs. 7 and 9, the door sections 31 and 32 are provided with end posts 33 and intermediate alternate posts 34 which carry means interconnecting the same between the top frame member 28 and the bottom frame member 29. The remaining hinge posts 35, which are alternately spaced, are of reduced vertical length so as to completely clear the inner surfaces of the top frame member 28 and the bottom frame member 29 thereby allowing the same to be moved inwardly of the alcove 20 and tub 21 when each of the door sections 31 and 32 is folded. Interconnecting the posts 33, 34 and 35 are a plurality of relatively rigid panels 36 which are hingedly connected along opposite vertical side margins to adjacent hinge posts.

As particularly shown in Fig. 16, the end posts 33 are provided along one vertical side margin with an outwardly opening U-shaped flange portion 37 which is provided with inturned end flanges 38 cooperating with a vertically extending continuous bumper gasket 39 of a known type. The bumper gasket is resiliently held by the flanges 38 in association with the U-shaped marginal portion 37 and cooperate with the inner recessed surface of each of the side frame members or jamb posts 30 to seal the assembly 27 when the shower tub is in use. The gaskets 39 reduce bumping noise and water leakage during the use of the enclosure assembly 27 and the sealing engagement with the inwardly opening channel-shaped jamb posts 30 is particularly shown in Figs. 8, 10 and 14.

The opposite vertically extending marginal surface of each of the end posts 33 has integrally formed therewith a hinge portion 40 which is provided with inturned flanges 41 and 42. The flange 41 is of greater length than the flange 42 and the latter flange is spaced outwardly beyond the flange 41 as particularly shown in Fig. 16. The flange 41 is still further inwardly turned out of parallel relation with the flange 42 for a purpose to be described. Each of the posts 34 and 35 intermediate the end posts 33 of each of the door sections 31 and 32 is formed with oppositely positioned hinges 40 of the type described in connection with the end posts 33. The vertically continuous hinges 40 of the intermediate posts 34 and 35 are each provided with flanges 41 and 42 of the type described, the flange 41 being turned inwardly out of parallel relation with the flange 42. The panels 36, as illustrated, are shaped with alternate convex and concave portions to provide the same with wave-like surfaces and the end margins of each of the panels 36 are provided with oppositely directed flanges 43 which are received within the oppositely positioned hinge portions 40.

The flanges 43, when the door sections 31 and 32 are fully expanded, are in engagement with the inner surfaces of the flanges 41 of the hinge portions 40, and, as illustrated in Figs. 14 and 16, when the door sections are folded the flanged edge margins of each of the panels 36 rotate 90° about the ends of the flanges 41 and into abutment with the inner radial surfaces of the associated flanges 42. The ends of the flanges 41 and 42 are spaced sufficiently close so as to eliminate the possibility of the end margins of the panels 36 becoming disengaged therefrom. The intermediate posts 35 move outwardly with the ends of the panels 36 associated therewith, as shown in Fig. 14, and each of the door sections 31 and 32 is readily folded. As the shorter hinge posts 35 move outwardly with adjacent ends of panels 36, the intermediate hinge posts 34, which are operatively associated with the top frame member 28 and bottom frame member 29, move toward one another into the relative positioning shown in Fig. 14. In expanding each of the door sections 31 and 32 from a folded condition, the operative procedure is reversed and the panels 36 and shorter hinge posts 35 move back into substantially coplanar or straight line relation with the endmost hinge posts 33 and intermediate hinge posts 34.

The posts 33 and frame members 28, 29 and 30 may be formed from extruded aluminum or any other suit-

able material. The posts 34 and 35 and the panels 36 are preferably formed from lightweight, translucent plastic material which exhibits the requisite strength and heat resistance. Such a material is polystyrene which is capable of withstanding high impact without cracking or shattering and which exhibits the requisite amount of heat resistance while at the same time being readily formed in the shapes of the elements described and being capable of long use without an undesirable change in appearance. The posts are formed with the hinge portions and gasket-carrying portions integral therewith and the flanged side margins of the panels 36 are readily snapped into their operative position with respect to the hinge portions 40.

Referring particularly to Fig. 11, the top frame member 28 is of inverted generally U-shape design being provided with spaced downwardly depending side walls 44, the outermost side wall being provided with an integral downwardly directed extension 45 which functions as a splash wall to prevent leakage of water over the top of the door sections 31 and 32. The side walls 44 are provided with integral inwardly directed grooved track flanges 46 and 47 which are centrally spaced from one another in the center portion of the frame member 28. The flanges 46 and 47 are provided with upwardly opening longitudinally extending grooves 48 which are provided with rounded top edges and are generally U-shaped in cross section.

The bottom frame member or tub track 29, as shown in Fig. 12, is formed from a plurality of laterally spaced upwardly directed walls 49, 50 and 51. These walls are integrally formed with a bottom wall 52 which, along the bottom surface thereof, is provided with a plurality of downwardly directed ridges 53 which extend the longitudinal length of the frame member 29. The highest wall 49 is the outermost wall and serves as a splash wall to prevent water from moving under the door sections 31 and 32 outwardly of the tub 21. Walls 50 and 51 are each provided along the top surfaces thereof with laterally extending flange portions 54 thereby providing these walls with a T-shaped cross section. The flanges 54 in combination with their supporting walls 50 and 51 provide spaced tracks for association with track slides or guide means carried by the bottom ends of the hinge posts 33 and 34.

In assembling the enclosure 27 the side frame members 30 are suitably fastened to the vertical side walls of the alcove 20 by screws or the like and are sealed thereto by the use of mastic if desired. The bottom frame member 29 is mounted on the outermost rim 23 of the tub 21 and sealed thereto by applying mastic along the bottom surface of the bottom wall 52 intermediate the ridges 53. The ends of the bottom frame member 29 are received within the bottom ends of the side frame members 30 as shown in Fig. 13. The door sections 31 and 32 are mounted relative to the top frame member 28 in a manner to be described and the frame member 28 is placed in resting engagement with the uppermost edges of the side frame members 30, as shown in Fig. 13.

The top surfaces of each of the posts 33 and 34 have attached thereto trolley assemblies which include brackets 55 having horizontally flanged portions fastened to the posts 33 and 34 by screws 56. The vertically extending flange portion of each bracket 55 carries a wheel 57 by means of a pin 58, the wheel 57 being rotatable about the pin 58. Each of the wheels 57 is then received in one of the deep track grooves 48 of a flange 46 or 47 of the top frame member 44. As particularly shown in Fig. 13, the door section 31 is the outermost of the two and its trolley wheels 57 are received in the track groove 48 of the flange 46. The track wheels 57 of the door section 32 are received in the track groove 48 of the rearmost flange 47.

The bottom ends of each of the posts 33 and 34 have attached thereto downwardly opening U-shaped track

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slides or guides 59 as shown particularly in Fig. 15. The horizontal body portion of each of the slides 59 is attached to the bottom end of a post 33 or 34 by a screw 60. The bottom ends of the downwardly depending side walls of the slides 59 are formed with inwardly directed spaced lug portions 61 which are spaced apart from one another a distance less than the width of the horizontal top flanges 54 of the vertical walls 50 and 51 of the bottom frame member 29. The slides are formed from slightly resilient material such as nylon and in assembling the same relative to the tracks 50 and 51, the lugs 61 are forced downwardly over the side edges of the flanges 54 and the slides 59 are snapped into place. The foremost door section 31 is mounted on the foremost track 50 while the door section 32 is mounted relative to the innermost track 51.

The wheels 57 are preferably formed from nylon for ease and quietness of operation as well as for retaining the lightweight characteristics of the assembly. By the provision of double tracks in both the top frame member 28 and the bottom frame member 29, each of the door sections 31 and 32 are provided with separate track and guide means to allow these door sections to move into and out of side-by-side relation with one another. Due to the folding features of each of the door sections 31 and 32, they must be in an extended or flat condition in order to allow the same to move past one another. In order to insure further the maintenance of an extended or opened position of each of the door sections 31 and 32 thereby preventing interference between the door sections when they are moved relative to one another, bracing means are provided on each of the door sections 31 and 32 which, when placed in their operative position, prevent the door sections from folding.

As particularly shown in Fig. 16, the end posts 33 of each door section 31 and 32 are provided with a drilled hole 62 which receives therethrough a metallic plug member 63. The plug 63 at one end thereof is provided with an annular shoulder 64 which abuts one side face of the post 33. The opposite end of the plug 63 is provided with a tapped hole receiving therein a screw 65 provided with a wide annular flat head 66. Intermediate the head 66 and the shank of the screw 65 is an annular axial shoulder or neck 67 retaining a washer 68 intermediate the same and the side surface of the post 33. The neck 67 receives thereabout a flange portion of a handle bracket 68 as particularly shown in Figs. 8 and 10. The head 66 retains the flange portion of the bracket 68 in pivotally attached relation with the screw 65. The outwardly positioned enlarged end portion 69 of the bracket 68 is hollow and generally cup-shaped receiving therein an end of a rod 70. A set screw 71 is received through the wall of the cup 69 and clamps the end of the rod 70 received therein.

As particularly illustrated in Figs. 8 and 10, each of the door sections 31 and 32 is provided with a handle member 72 and 73, respectively. The remaining end of each of the rods 70 of the handle assemblies 72 and 73 is received in a cup portion 74 of a handle-carrying bracket 75 and fixed relative thereto by a set screw 76. Each of the handle brackets 75 is provided with a flange portion 77 which is recessed along a side margin thereof to define a hook-shaped end 78 as shown in Fig. 7. The hooked portion 78 of the handle bracket 77 is adapted to be removably received about the annular neck 67 of a screw 65 carried by an end post 33.

The handle assemblies 72 and 73 are identical in arrangement and design and each of the end posts 33 of each of the door sections 31 and 32 is provided with a screw 65 of the type described in connection with Fig. 16. One of these screws carries the pivotal end of the handle assembly associated therewith while the remaining spaced screw functions as the fixed attachment means and receives the hooked end portion 78 of the handle bracket 77. As illustrated in the drawings, the end post 33 of the

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door section 31 nearest the left hand side frame member 30 carries the pivotal end of the handle assembly 72 while the remaining endmost post 33 of this section carries the mounting screw 65 which receives the hooking portion 78 of the handle assembly 72. With respect to the door section 31, it will be noted that the handle assembly 72 is carried on the outer surface thereof outwardly of the enclosure assembly 27. With respect to the door section 32, the handle assembly 73 is carried on the inner surface thereof inwardly of the enclosure assembly 27. Likewise, the end post 33 of the door section 32 adjacent the right hand side frame member 30 is the post to which the door handle assembly 73 is pivotally attached while the remaining end post 33 of the section 32 carries the hook-receiving screw 65.

As a result of the manner in which the handle assemblies 72 and 73 are mounted on their respective door sections 31 and 32, these assemblies may be pivotally moved into and out of operative position. In each instance the endmost post 33 which has the door handle assembly pivotally attached thereto is provided with a leaf spring catch 79 which is of a known type formed from reversely folded spring metal flanges adapted to receive therebetween the end handlebar brackets 77 of each of the handle assemblies 72 and 73. Consequently, when the handle assemblies 72 and 73 are swung downwardly into their inoperative positions, the free end brackets 77 may be placed in between the leaf springs of the catch 79 and the handle assemblies are rigidly held in their inoperative position.

The purpose of the handle assemblies 72 and 73 is to rigidify each of the door sections 31 and 32 when the same are in their expanded or opened condition to allow movement of these door sections along their respective tracks. Thus, when the handle assemblies 72 and 73 are in their operative position, namely, hooked over the oppositely positioned screws 65, each of the door sections 31 and 32 is braced against folding and the hinge posts and panels of the same are held in substantially coplanar or straight line relation. Thus, the door sections 31 and 32 may be moved relative to one another into and out of side-by-side relation without interference therebetween and, in the event that the entire opening defined by the frame members of the assembly is desired to be closed, inadvertent bumping or movement of the door sections will not promote folding of the same thereby preventing full efficient use of the assembly.

The inturning of the hinge flanges 41 out of parallel relation with associated flanges 42 serves two purposes. When the door sections are fully extended in unfolded condition the hinge connections of the panels 36 are allowed to move into substantially complete coplanar relation with associated panels thereby forming a substantially straight line through the center line of each door section. Engagement of the handle assembly of each door section maintains this center line relation and the panels do not exhibit a tendency to move away from the center line of the door section when tension is applied and interference between the two door sections does not occur when one is moved past the other. Thus, the inward turning of the flanges 41 insures complete alignment between the interconnected panels 36 and hinge posts 33, 34 and 35. Still further, when the door sections are in their folded condition, the inturned positioning of the flanges 41 insures a line contact along the outer surfaces thereof with a substantial portion of the margins of the panels 36. This latter arrangement is particularly shown in Fig. 14 and with this provision the panels 36 and hinge posts 35 are sturdily supported when the door sections are in folded condition. Sufficient supporting surface contact occurs between the margins of the panels 36 and their respective hinge posts 33, 34 and 35 to eliminate damage caused by accidental bumping or pushing of the same when the door section is in a folded condition.

Referring again to Figs. 1-6, the many uses of the enclosure assembly 27 of the present invention will now be described. In Figs. 1 and 2 the door sections 31 and 32 are shown in their folded condition spaced apart from one another and in contact with opposite side frame members 30. Full access to the interior of the alcove 20 and the tub 21 is provided with the folding of the door sections 31 and 32. The handle assemblies 72 and 73 are both in their inoperative positions hanging downwardly and clamped by the bar catches 79. This arrangement of the door sections 31 and 32 allows uninterfered tub cleaning and convenient bathing.

In Figs. 3 and 4 the door sections 31 and 32 are shown fully extended and positioned relative to one another so as to completely close off the area defined by the frame members 28, 29 and 30. In maintaining full extension of each of the door sections 31 and 32, their respective handle assemblies 72 and 73 are hooked into their operative position and brace each door section against folding. Consequently, the entire area defined by the frame of the enclosure assembly 27 is completely closed off and leakage outwardly of the tub 21 and alcove 20 is eliminated. For shower use the door sections 31 and 32 may be positioned as shown; however, this positioning may be readily reversed, the sections being freely slidable past one another. Rearrangement of this nature will not reduce the efficiency of the unit.

The gaskets 39 carried by each vertical outer edge of the end posts 33 are in abutment with the inner surfaces of the side frame members 30 and leakage of water is eliminated in this respect. The splash walls 45 and 49 of the top frame member 28 and bottom frame member 29 prevent the leakage of water over the top and under the bottom of the door sections 31 and 32. As particularly shown in Fig. 8, the inner end posts 33 of the door sections 31 and 32 overlap one another when the sections are in their fully extended condition and the leakage of water through the center of the enclosure is eliminated. Still further, as shown in Fig. 12, water collected in the bottom frame member 29 is allowed to drain back into the tub 21 through drain holes 80 carried by the vertical walls 50 and 51. In the fully closed condition the innermost handle assembly 73 serves as a safety bar inside the tub 21 and can be readily grasped by the occupant. The outermost handle assembly 72 serves as a towel rack providing readily accessible towels for use by the occupant of the tub 21.

In Figs. 5 and 6 a different positioning of the door sections 31 and 32 is shown wherein the sections are moved into side-by-side relation so as to allow the tub user to easily move into or out of the alcove 20. Due to the opposite positioning of the handle assemblies 72 and 73, there is no interference between the same when the door sections 31 and 32 are moved relative to one another and by providing each of these door sections with separate tracks the same may be used interchangeably or in side-by-side relation as illustrated. Still further it should be apparent that, if desired, one door section may be maintained in its extended condition while the other may be freely foldable.

The enclosure assembly 27, as described above, is of uncomplicated construction and is readily adapted for different arrangements and uses. The frame members may be readily assembled with a minimum of effort and the resultant bathtub and shower enclosure is draft-free, leak-proof and readily convertible to meet individual needs. The provision of the rollers 57, slides 59 and gaskets 39 allows each of the door sections 31 and 32 to be readily moved from one position to the other with a minimum of noise and effort. The handle assemblies 72 and 73 are readily placed in their operative positions and moved into their inoperative positions with a minimum of effort. By the provision of the set screws 71 and 76, the operative length of each of the handle assemblies 72 and 73 may be varied in order to maintain efficient func-

tioning of the same in properly bracing the door sections and holding the same in straight line condition so as to allow each to be moved relative to the other without interference therebetween. The end post gaskets may be formed from any suitable low cost plastic material such as polyvinyl chloride.

Obviously many modifications and variations of the invention as hereinbefore set forth may be made without departing from the spirit and scope thereof, and therefore only such limitations should be imposed as are indicated in the appended claims.

I claim:

1. An enclosure assembly including spaced top and bottom frame members, each of said members being provided with a pair of spaced paralleling track means, independently mounted movable and foldable enclosure sections each being operatively supported in separate track means of said members and each being movable relative to the other into and out of side-by-side relation, and enclosure section bracing means carried by each of said sections for preventing folding of said sections during movement of the same past one another.

2. An enclosure assembly including spaced top and bottom frame members, each of said members being provided with a pair of spaced paralleling track means, independently mounted movable and foldable enclosure sections each being operatively supported in separate track means of said members and each being movable relative to the other into and out of side-by-side relation, each of said enclosure sections being formed from hingedly interconnected panels which move relative to one another upon the folding of a section to form unidirectional box-like folds, and enclosure section bracing means carried by each of said sections for preventing folding of said sections during movement of the same past one another.

3. An enclosure assembly including spaced top and bottom frame members, each of said members being provided with a pair of spaced paralleling track means, independently mounted movable and foldable enclosure sections each being operatively supported in separate track means of said members and each being movable relative to the other into and out of side-by-side relation, each of said enclosure sections being formed from hingedly interconnected panels which move relative to one another upon the folding of a section to form unidirectional box-like folds, and enclosure section bracing means carried by each of said sections for preventing folding of said sections during movement of the same past one another, said bracing means including a bar carried by each of said sections pivotally mounted at one end thereof and detachably engageable at the other end thereof with means fixedly carried by the section.

4. An enclosure assembly including spaced top and bottom frame members, each of said members being provided with a pair of spaced paralleling track means, independently mounted movable and foldable enclosure sections each being operatively supported in separate track means of said members and each being movable relative to the other into and out of side-by-side relation, each of said enclosure sections being formed from hingedly interconnected panels which move relative to one another upon the folding of a section to form unidirectional box-like folds, and enclosure section bracing means carried by each of said sections for preventing folding of said sections during movement of the same past one another, said bracing means including a bar carried by each of said sections pivotally mounted at one end thereof and detachably engageable at the other end thereof with means fixedly carried by the section, each bar when engaged with said fixed means extending substantially the full length of the section carrying the same and bracing spaced portions of said section against foldable movement of said panels toward one another, the bar of one section being carried on the inner surface thereof and the bar of

the other section being carried on the outer surface thereof.

5. An enclosure assembly including spaced top and bottom frame members, each of said members being provided with a pair of spaced paralleling track means, independently mounted movable and foldable enclosure sections each being operatively supported in separate track means of said members and each being movable relative to the other into and out of side-by-side relation, each of said enclosure sections being formed from a plurality of hinge posts interconnected by relatively rigid panels, the endmost posts and intermediate alternate posts having guide means at the upper and lower ends thereof received in said track means, the remainder of said posts being movable laterally of said frame members upon the folding of said sections, and enclosure section bracing means carried by each of said sections for preventing folding of said sections during movement of the same past one another.

6. An enclosure assembly including spaced top and bottom frame members, each of said members being provided with a pair of spaced paralleling track means, independently mounted movable and foldable enclosure sections each being operatively supported in separate track means of said members and each being movable relative to the other into and out of side-by-side relation, each of said enclosure sections being formed from a plurality of hinge posts interconnected by relatively rigid panels, the endmost posts and intermediate alternate posts of each section having track rollers at the upper ends thereof received in the track means of said top frame member and guide means at the lower ends thereof received in the track means of said bottom frame member, the remainder of said posts being movable laterally of said frame members upon the folding of said sections, and enclosure section bracing means carried by each of said sections for preventing folding of said sections during movement of the same past one another.

7. An enclosure assembly including spaced top and bottom frame members, each of said members being provided with a pair of spaced paralleling track means, independently mounted movable and foldable enclosure sections each being operatively supported in separate track means of said members and each being movable relative to the other into and out of side-by-side relation, each of said enclosure sections being formed from a plurality of hinge posts interconnected by relatively rigid panels, the endmost posts and intermediate alternate posts of each section having guide means at the upper and lower ends thereof received in said track means, the remainder of said posts being movable laterally of said frame members upon the folding of said sections, and enclosure section bracing means carried by each of said sections for preventing folding of said sections during movement of the same past one another, said bracing means including a bar carried by each of said sections pivotally mounted at one end thereof and detachably engageable at the other end thereof with means fixedly carried by the section, each bar when engaged with said fixed means extending substantially the full length of the section carrying the same and bracing spaced portions of said section against foldable movement of said panels toward one another, the bar of one section being carried on the inner surface thereof and the bar of the other section being carried on the outer surface thereof.

8. An enclosure assembly including spaced top and bottom frame members, each of said members being provided with a pair of spaced paralleling track means, independently mounted movable and foldable enclosure sections each being operatively supported in separate track means of said members and each being movable relative to the other into and out of side-by-side relation, each of said enclosure sections being formed from a plurality of hinge posts interconnected by relatively rigid panels, the endmost posts and intermediate alternate posts of each

section having guide means at the upper and lower ends thereof received in said track means, the remainder of said posts being movable laterally of said frame members upon the folding of said sections, said hinge posts being provided with vertically extending continuous hinges formed from inturned flanges one of which is spaced outwardly from the other, the innermost flange being inwardly turned out of parallel relation with the outermost flange, the vertical side margins of said panels each being provided with a continuous flange hooked about an innermost flange of a hinge and in contact with the innermost face thereof when said section is fully expanded, and enclosure section bracing means carried by each of said sections for preventing folding of said sections during movement of the same past one another.

9. An enclosure assembly including spaced top and bottom frame members, each of said members being provided with a pair of spaced paralleling track means, independently mounted movable and foldable enclosure sections each being operatively supported in separate track means of said members and each being movable relative to the other into and out of side-by-side relation, each of said enclosure sections being formed from a plurality of hinge posts interconnected by relatively rigid panels, the endmost posts and intermediate alternate posts of each section having guide means at the upper and lower ends thereof received in said track means, the remainder of said posts being movable laterally of said frame members upon the folding of said sections, the endmost posts of each section carrying resilient gaskets along the outer vertical margins thereof for sealing engagement with the side walls of said assembly, and enclosure section bracing means carried by each of said sections for preventing folding of said sections during movement of the same past one another.

10. An enclosure assembly including spaced top and bottom frame members, each of said members being provided with a pair of spaced paralleling track means, independently mounted movable and foldable enclosure sections each being operatively supported in separate track means of said members and each being movable relative to the other into and out of side-by-side relation, each of said enclosure sections being formed from a plurality of hinge posts interconnected by relatively rigid panels, the endmost posts and intermediate alternate posts of each section having guide means at the upper and lower ends thereof received in said track means, the remainder of said posts being movable laterally of said frame members upon the folding of said sections, and enclosure section bracing means carried by each of said sections for preventing folding of said sections during movement of the same past one another, said bracing means including an outwardly spaced handle carried by each of said sections pivotally mounted at one end thereof and detachably engageable at the other end thereof with means fixedly carried by the section, said handle when engaged with said fixed means extending substantially the full width of the section carrying the same and bracing spaced portions of said section against foldable movement of said panels toward one another, the handle of one section being carried on the inner surface thereof and the handle of the other section being carried on the outer surface thereof, and adjustment means forming a part of each handle to fix the operative length thereof.

11. An enclosure assembly including spaced top and bottom frame members, each of said members being provided with a pair of spaced paralleling track means, independently mounted movable and foldable enclosure sections each being operatively supported in separate track means of said members and each being movable relative to the other into and out of side-by-side relation, each of said enclosure sections being formed from a plurality of hinge posts interconnected by relatively rigid panels, the endmost posts and intermediate alternate posts of each section having track rollers at the

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upper ends thereof received in the track means of said top frame member and guide means at the lower ends thereof received in the track means of said bottom frame member, the remainder of said posts being movable laterally of said frame members upon the folding of said sections, the endmost posts of each section carrying resilient gaskets along the outer vertical margins thereof for sealing engagement with the side walls of said assembly, and enclosure section bracing means carried by each of said sections for preventing folding of said sections during movement of the same past one another, said bracing means including an outwardly spaced handle carried by each of said sections pivotally mounted on an endmost post of a section and being detachably engageable with means carried by the other endmost post of the section, the handle of one section being carried on the inner surface thereof and the handle of the other section being carried on the outer surface thereof.

12. A shower bath slidable and foldable door assembly including a frame formed from top and bottom cross members, said top member being in the form of a generally U-shaped inverted channel having a pair of separate transversely and inwardly directed grooved track flanges which are centrally spaced from one another, said bottom member being provided with a pair of upwardly directed laterally spaced guide walls of generally T-shape cross section, independently mounted movable and foldable enclosure sections carried within said frame, each of said sections being formed from a plurality of hinge posts interconnected by relatively rigid panels, the endmost posts and intermediate alternate posts of each section having track rollers at the tops thereof received in a groove of a track flange of said top member, the bottoms of said endmost and intermediate alternate posts having generally U-shaped guides snapped over the top flange portion of a guide wall of said bottom member, each of said sections being mounted between separate track flanges and guide walls to allow independent movement thereof into and out of side-by-side relation.

13. A shower bath slidable and foldable door assembly including a frame formed from top and bottom cross

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members, said top member being in the form of a generally U-shaped inverted channel having a pair of separate transversely and inwardly directed grooved track flanges which are centrally spaced from one another, said bottom member being provided with a pair of upwardly directed laterally spaced guide walls of generally T-shaped cross section, independently mounted movable and foldable enclosure sections carried within said frame, each of said sections being formed from a plurality of hinge posts interconnected by relatively rigid panels, the endmost posts and intermediate alternate posts of each section having track rollers at the tops thereof received in a groove of a track flange of said top member, the bottoms of said endmost and intermediate alternate posts having generally U-shaped guides snapped over the top flange portion of a guide wall of said bottom member, each of said sections being mounted between separate track flanges and guide walls to allow independent movement thereof into and out of side-by-side relation, the remainder of said posts being movable laterally of said frame upon the folding of said sections, and enclosure section bracing means carried by each of said sections for preventing folding of said sections during movement of the same past one another, said bracing means including a bar carried by each of said sections pivotally mounted at one end thereof and detachably engageable at the other end thereof with means fixedly carried by the section, said bar when engaged with said fixed means extending substantially the full length of the section carrying the same and bracing spaced portions of said section against foldable movement of said panels toward one another.

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