

March 24, 1953

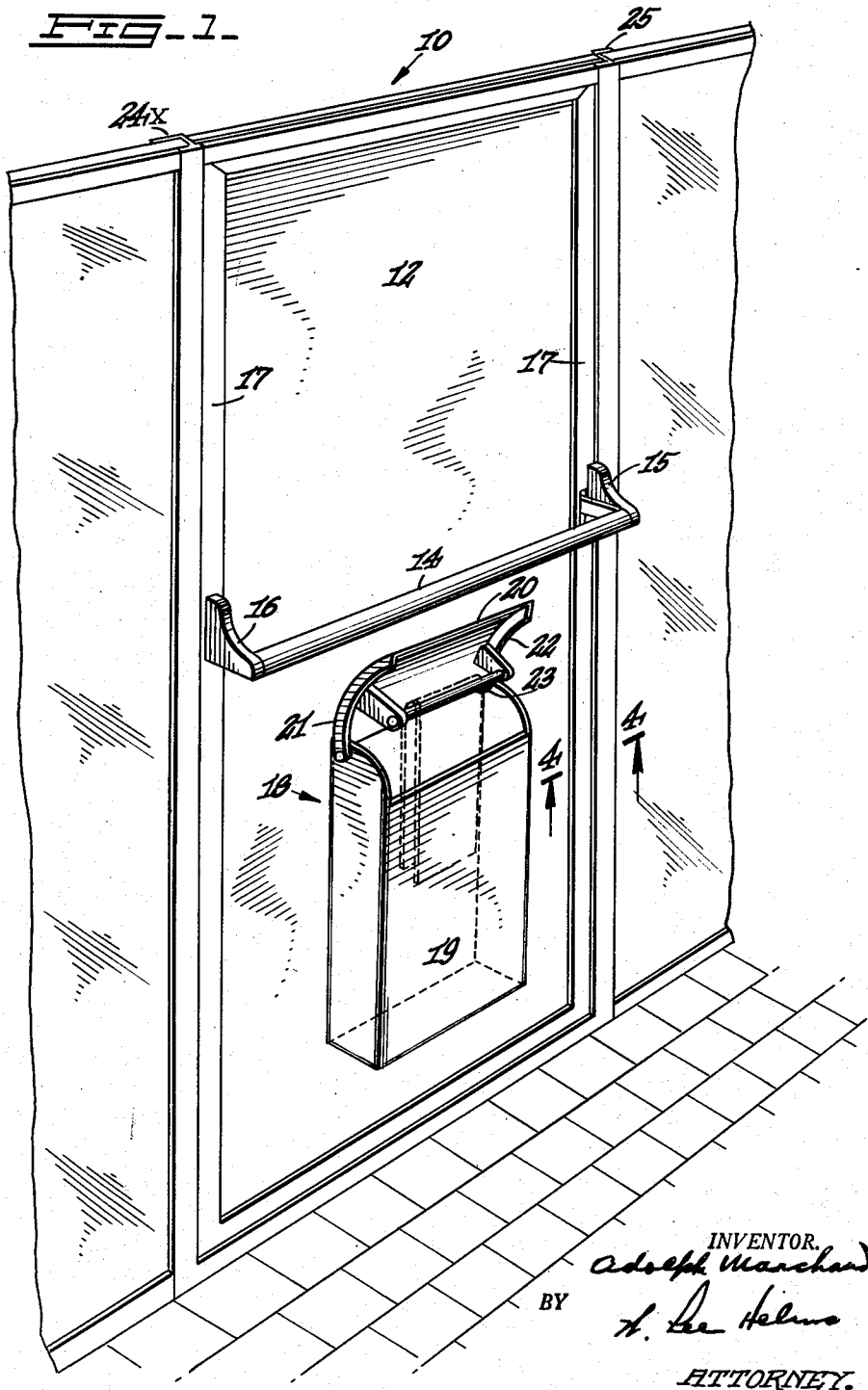
A. MARCHAND

2,632,537

SAFETY SHOWER STALL DOOR LOCK

Filed Nov. 6, 1951

3 Sheets-Sheet 1



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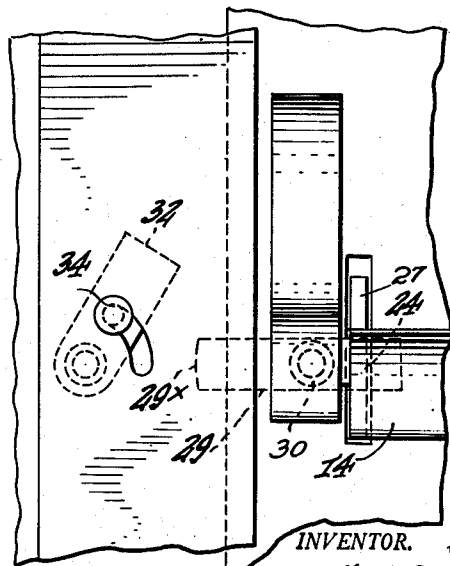
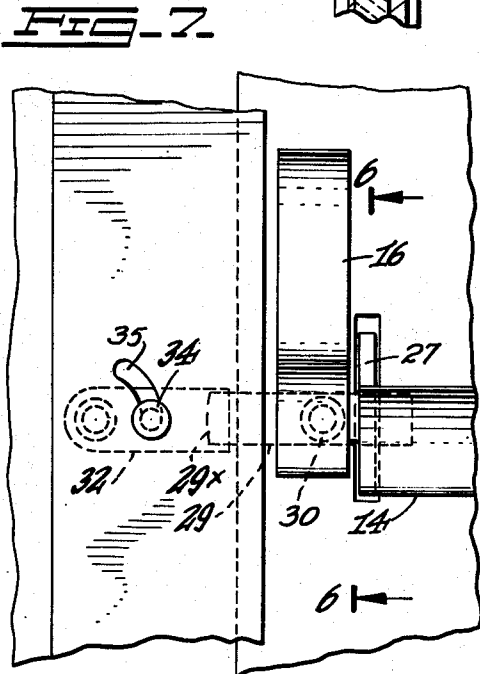
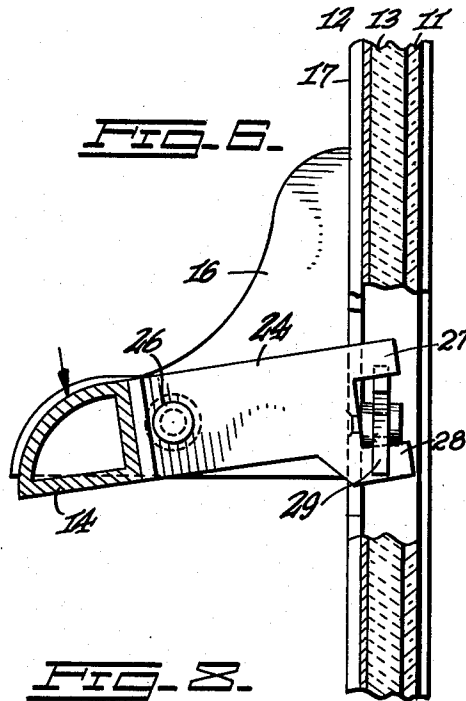
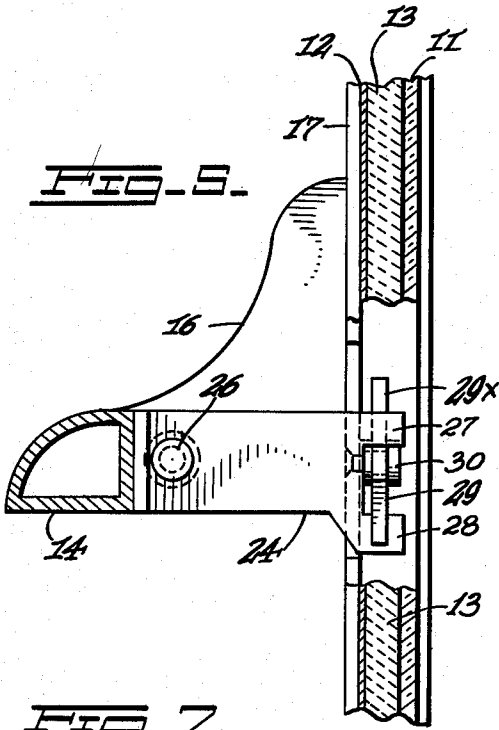
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INVENTOR.
Adolph Marchand
BY
H. Lee Helms
ATTORNEY.

UNITED STATES PATENT OFFICE

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SAFETY SHOWER STALL DOOR LOCK

Adolph Marchand, Jackson Heights, N. Y.

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1 Claim. (Cl. 189—46)

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This invention relates to safety door locks used to lock shower-stalls.

Shower-stall doors are commonly made of glass and because of the slippery nature of shower stall floors due to water and soap they are inherently dangerous should a bather slip in said shower-stall.

Moreover, most shower stalls are held closed by a simple friction clasp and should one fall against such a door it would immediately open causing the bather to fall into the bathroom.

It is an object of this invention to provide a shower-stall door that would immediately lock should a bather fall against such a door.

It is also an object of this invention to provide a shower-stall door which will lock upon application of little pressure as upon being gripped by a bather.

It is a further object of this invention to provide a corrosion-proof shower-stall having a glass front panel, and a rear metal panel facing the interior of the shower stall.

It is still another object of this invention to provide a towel rack attached to said metal door panel. An understanding of these and other objects will become clear upon reading the following description accompanied by a drawing of an embodiment of the invention and in which

Fig. 1 is a perspective view of the shower-stall door showing the door as seen from inside the shower-stall,

Fig. 2 is a cross-sectional view of the shower-stall door and adjacent door jamb showing the locking mechanism,

Fig. 3 is a front elevation showing details of catch mechanism in outline when in open position,

Fig. 4 is a cross-section of a hinge and its adjacent door jamb taken on line 4—4 of Fig. 1,

Fig. 5 is a cross-section taken on line 5—5 of Fig. 3 and is broken away in part to show the operating mechanism in the rest or unlocked position,

Fig. 6 is the same view as that of Fig. 5 but showing the operating mechanism in locked position,

Fig. 7 is the same view as that of Fig. 3 but showing the operating mechanism in locked position and

Fig. 8 is the same view as that of Fig. 7 except that the emergency latch has been raised to the open position.

Referring to the drawing a shower stall door generally indicated by the numeral 10 (Fig. 1) and having a glass panel 11, a metal panel 12 on

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the enclosure side of the shower, and an insulating material 13, for example, glass wool (Fig. 5) is provided with a safety door grip bar 14 pivotally hinged to brackets 15 and 16 rigidly mounted on moulding 17 of the door 10.

The interior metal panel 12 may be provided with a splash-proof towel rack 18 which is easily mounted as by spot welding to said metal panel at a convenient location such as below the grip bar 14. Such a metal towel rack cannot be fixed to a glass shower-stall door but is easily fixed to the shatter-proof door 10 of this invention.

The towel rack 18 has corrosion-proof metal casing 19 and a hinged top 20 also made from corrosion-proof metal, such as stainless steel. The hinged top 20 is provided with over-hanging flaps 21 and 22 to prevent shower water from entering the interior of the towel rack, and also with a towel bar 23. The metal casing 19 may be open at the bottom.

The shower-stall door 10 upon closing abuts front channel door jamb 24X and rear channel door jamb 25 which jambs are preferably made of extruded corrosion-proof metal.

Grip bar 14 (Figs. 2-8) is rigidly fixed to a lever bar 24 by an integral angle iron 25X as by welding or other conventional means. A pivot pin 26 is located in lever bar 24 close to grip bar 14 and is removably attached to front bracket 16 by a screw threaded nut or other conventional means.

Lever bar 24 is provided at its end furthest from the grip bar 14 with a two pronged claw having claw hooks 27 and 28 between which is disposed one end of a swingable latch 29. Latch 29 is pivoted at substantially its center about a pivot pin 30 which is fixed to front hollow extruded metal member 31. Lever bar 24 enters said hollow extruded member 31 at an opening provided therefor adjacent bracket 16.

Latch 29 is operated by lever bar 24 and is disposed at right angles to said bar. Located in the extruded front door jamb 24 opposite to latch 29 is a swingable catch 32 pivoted at one end by pivot pin 33. Latch 29 protrudes through extruded member 31 through an opening provided therefor so that it can swing to engage catch 32. Catch 32 is provided with a grip pin 34 which extends from one side of front jamb 24 to the other and which pin 34 can be moved through recess 35 to release the gripping engagement with latch 29 if the latter should fail to operate. Thus catch 32 can be operated from inside or outside the shower stall.

The operation of the safety door latch is as

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follows, a slight downward pressure on grip bar 24 (Fig. 6) rotates lever bar 24 causing the claw hook 28 to rotate latch 29 so that latch front end 29X is rotated downward from its open position shown in Fig. 3 to its closed position shown in Fig. 7. Release of pressure on the grip bar 24 causes the hooked claws to move downward because of their weight thereby lifting front latch 29X from engagement with catch 32.

Thus with no pressure on the grip bar, the front end 29X of latch 29 is in open position, that is, not in engagement with catch 32. But should a bather fall against the door, latch 29 would immediately be actuated to engage catch 32.

Fig. 8 shows the catch 32 in a raised position as when raised by pushing upward on grip pin 34. However the operating or normal position of catch 32 is its lowered or horizontal position, since it is only when in its horizontal position that it is in co-operative engagement with latch 29.

The door 10 is hinged to rear door jamb 25 by a plurality of hinges 35X (Fig. 4) removably secured by conventional means such as screws, to hollow rear extruded member 36.

Having described the invention, what is claimed is:

A safety shower-stall door comprising a pan-

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eled door having an interior panel, a movable grip bar in spaced relation to said panel and pivoted to brackets at substantially a right angle thereto, said brackets being secured to said panel, a swingable catch, a moveable latch, and lever means for transferring the movement of said grip bar to said latch whereby engagement between said latch and catch is effected, wherein said lever means is a projection from the grip bar engaging said latch, whereby downward movement of said grip bar effects an upward movement of said latch engaging projection and a corresponding downward movement of the front engaging end of said latch to a door locked position.

ADOLPH MARCHAND.

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