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DIVERTER SPOUT CONSTRUCTION

Filed April 22, 1963

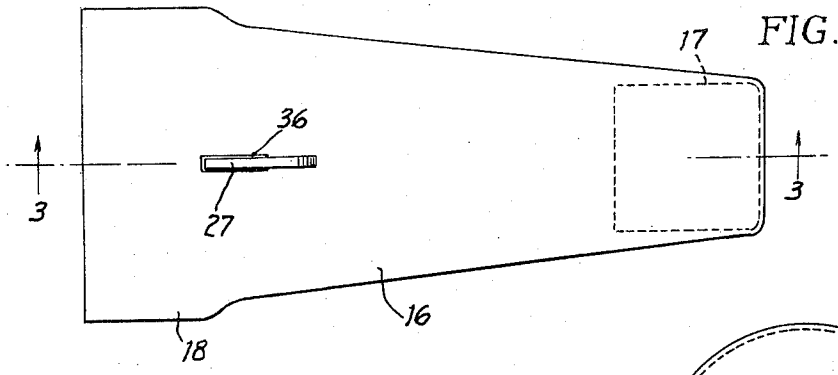


FIG. 2.

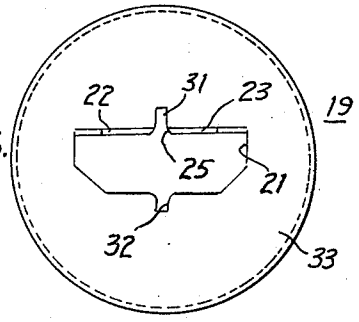


FIG. 6.

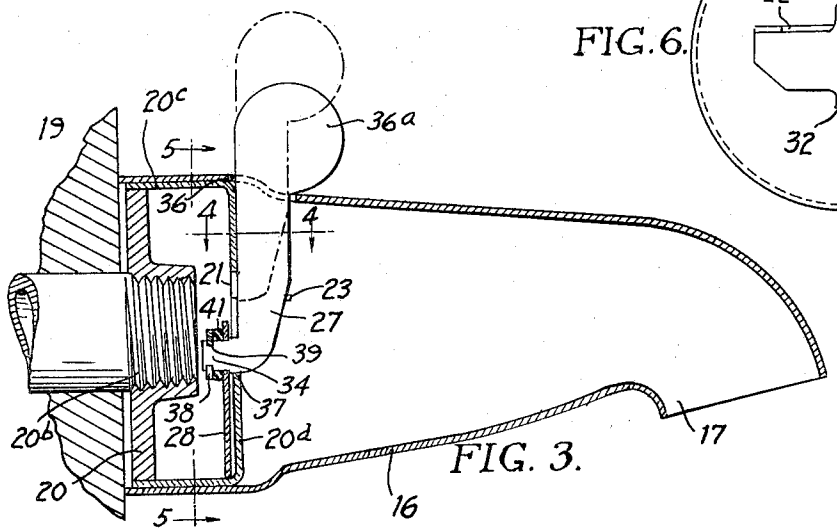


FIG. 3.

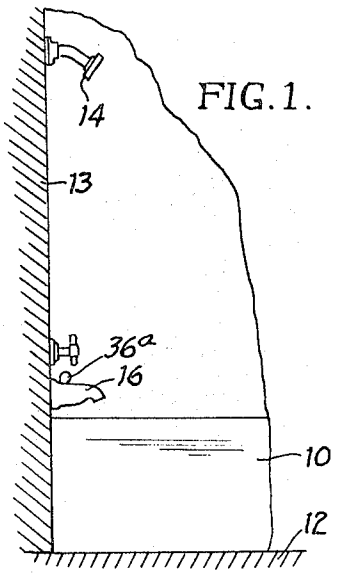


FIG. 1.

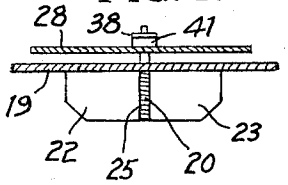


FIG. 4.

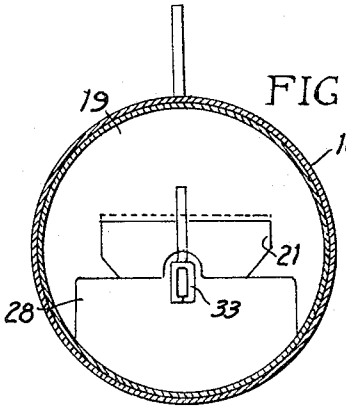


FIG. 5.

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DIVERTER SPOUT CONSTRUCTION

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3 Claims. (Cl. 251—319)

This invention relates to a spout construction. More particularly, this invention relates to a bathtub spout which is adapted to divert water to a shower head.

An object of this invention is to provide a diverter spout in which a valving or sealing construction is provided for cutting off flow through the spout when the flow is to be diverted to the shower head.

A further object of this invention is to provide a diverter spout construction having a plate-like valve-operating handle which projects free of the body of the spout and through an opening sufficiently restricted that leakage thereat is restricted or eliminated.

A further object of this invention is to provide a diverter spout of this type which is formed of a hollow, sheet metal body, a cup-shaped sheet metal member mounted thereinside and having an opening therethrough and a plate thereinside carrying a threaded opening for connecting the spout to a plumbing line.

A further object of this invention is to provide a device of this type in which the cup-shaped member is provided with guides for guiding the plate-shaped valve-operating member to prevent wobbling or twisting thereof as the valve-operating member is closed and opened.

The above and other objects and features of the invention will be apparent to those skilled in the art to which this invention pertains from the following detailed description, and the drawing, in which:

FIG. 1 is a view partly in side elevation and partly in section showing a fragmentary portion of a bathtub in combination with a spout constructed in accordance with an embodiment of this invention;

FIG. 2 is a top plan view of the spout on an enlarged scale;

FIG. 3 is a view in section taken on the line 3—3 in FIG. 2;

FIG. 4 is a view in section taken on the line 4—4 in FIG. 3;

FIG. 5 is a view in section taken on the line 5—5 in FIG. 3; and

FIG. 6 is a view in side elevation of a cup member forming a portion of the spout, the cup member being removed therefrom.

In the following detailed description, and the drawing, like reference characters indicate like parts.

In FIG. 1 is illustrated a fragmentary portion of a bathtub 10 mounted on a floor 12 adjacent a wall 13 inside which plumbing connections (not shown) of the usual type are housed. A shower head 14 extends outwardly from the wall above the spout.

As shown in FIGS. 2 and 3, the spout includes a hollow body 16 having a discharge opening 17 at one end thereof and an enlarged hollow portion 18 at the opposite end thereof. Inside the enlarged end portion 18 is mounted a cup-shaped baffle member 19. The left hand end of the cup-shaped member 19 is closed by a plate 20 having an internally threaded center boss 20*a* in which a pipe end 20*b* can be received to mount the spout on the wall 13. The body 16, cup-shaped member 19 and plate 20 are soldered together to form a unitary water-tight structure.

The cup-shaped member 19 includes a cylindrical wall 20*c* which fits snugly inside the body 16 and a base or baffle plate portion 20*d* which divides the body into two

sections. An opening 21 is formed in the base of the cup-shaped member 19 by bending portions thereof outwardly therefrom and at right angles thereto to form wings 22 and 23, as shown in FIG. 4. A slot 25 is provided between the wings 22 and 23 for guiding an upright valve carrying plate 27 which carries a valve plate 28. In addition, an upper slot 31 and a lower slot 32 are provided in the base 20*d* of the cup-shaped member 19 for receiving a flange portion 34 of the valve carrying plate 27.

The valve carrying plate 27 moves between the full line position of FIG. 3 at which the flange 34 is received in the lower slot 32 (FIG. 6) and a raised position shown in dot-dash lines (FIG. 3) at which the flange portion 34 is received in the upper slot 31 (FIG. 6), and the slots 31 and 32 steady the flange 34 at the upper and lower limits of its travel. In addition, the valve carrying plate 27 extends through a slot 36 (FIGS. 2 and 3) in the body 16, and the valve carrying plate 27 is guided by the walls of the slot 36 and by the wings 22 and 23 (FIG. 6). An upper end 36*a* of the valve carrying plate 27 extends outwardly of the body 16 to form a handle.

As shown in FIG. 3, the valve plate 28 is mounted on the flange portion 34 with the flange portion 34 extending through an opening 37 in the valve plate 28. A split ring 38 mounted in a groove 39 in the flange 34 prevents release of the valve plate 28 from the valve carrying plate 27. An annular gasket 41 of rubber-like material is provided between the split ring 38 and the valve plate 28.

Water under pressure is introduced through the pipe end 20*b* when the water is to be diverted, and the valve plate 28 and the valve carrying plate 27 are moved to the raised (dot-dash line position of FIG. 3) and the valve plate 28 is urged against the base 20*d* of the cup-shaped member 19 to close the opening 21 therein. Water pressure on the split-ring 38 and the exposed end of the flange 34 of the valve carrying plate 27 urge the annular gasket 41 tightly against the valve plate 28 to form a seal thereat.

The spout construction illustrated in the drawing and described above is subject to structural modification without departing from the spirit and scope of the appended claims.

Having described our invention what we claim as new and desire to secure by Letters Patent is:

1. A diverter spout construction which comprises a hollow tubular body, said body having a discharge opening adjacent one end thereof and an inlet opening at the other end thereof, an upright baffle plate mounted in the body spaced from the ends of the body and dividing the interior of the body into two sections, there being an opening through said baffle plate spaced above a lower edge thereof for providing communication between the sections, an upright valve carrying plate mounted in the body on one side of the baffle plate, there being a slot in an upper wall portion of the body adjacent said baffle plate, a handle portion of the valve carrying plate extending through and being guided by said slot for up and down movement, guides on the baffle plate on opposite sides of the valve carrying plate for maintaining the valve carrying plate in upright position, a tongue on the valve carrying plate extending through the opening in the baffle plate, and a valve plate mounted on said tongue on the other side of the baffle plate, said valve carrying plate and valve plate moving between a lower position in which the opening in the baffle plate is open and a raised position in which the valve plate covers and closes the opening in the baffle plate, there being aligned upright slots in the baffle plate at upper and lower edges of the opening in the baffle plate adapted to receive the tongue when the valve carrying plate and the valve member are in raised and lowered positions to steady the valve carrying plate and the valve member.

2. A diverter spout construction which comprises a hollow tubular body, said body having a discharge opening adjacent one end thereof and an inlet opening at the other end thereof, an upright baffle plate mounted in the body spaced from the ends of the body and dividing the interior of the body into two sections, there being an opening through said baffle plate spaced above a lower edge thereof for providing communication between the sections, an upright valve carrying plate mounted in the body on one side of the baffle plate, there being a slot in an upper wall portion of the body adjacent said baffle plate, a handle portion of the valve carrying plate extending through and being guided by said slot for up and down movement, a tongue on the valve carrying plate extending through the opening in the baffle plate, and a valve plate mounted on said tongue on the other side of the baffle plate, said valve carrying plate and valve plate moving between a lower position in which the opening in the baffle plate is open and a raised position in which the valve plate covers and closes the opening in the baffle plate, there being aligned upright slots in the baffle plate at upper and lower edges of the opening in the baffle plate adapted to receive the tongue when the valve carrying plate and the valve member are in raised and lowered positions to steady the valve carrying plate and the valve member.

3. A diverter spout construction which comprises a hollow tubular body, said body having a discharge opening adjacent one end thereof, there being an inlet opening in the body at the other end thereof, a cup-shaped member mounted inside the body inside the inlet opening, said cup-shaped member comprising an annular wall mounted in face-to-face relation with an interior of the wall of the body at the inlet opening and a baffle plate portion spaced from the ends of the body and dividing the interior of the body into two sections, an inlet plate

mounted inside the annular wall, means for joining the inlet plate, annular wall, and body in water-tight relation, there being an opening in the inlet plate for introducing liquid into one of said sections, there being an opening through said baffle plate spaced above a lower edge thereof for providing communication between the sections, an upright valve carrying plate mounted in the body on one side of the baffle plate portion, there being a slot in an upper wall portion of the body adjacent said baffle plate portion, a handle portion of the valve carrying plate extending through and being guided by said slot for up and down movement, guides on the baffle plate portion on opposite sides of the valve carrying plate for maintaining the valve carrying plate in upright position, a tongue on the valve carrying plate extending through the opening in the baffle plate, and a valve plate mounted on said tongue on the other side of the baffle plate portion, said valve carrying plate and valve plate moving between a lower position in which the opening in the baffle plate is open and a raised position in which the valve plate covers and closes the opening in the baffle plate, there being aligned upright slots in the baffle plate portion at upper and lower edges of the opening in the baffle plate adapted to receive the tongue when the valve carrying plate and the valve member are in raised and lowered positions, respectively, to steady the valve carrying plate and the valve member.

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D. H. LAMBERT, *Assistant Examiner.*