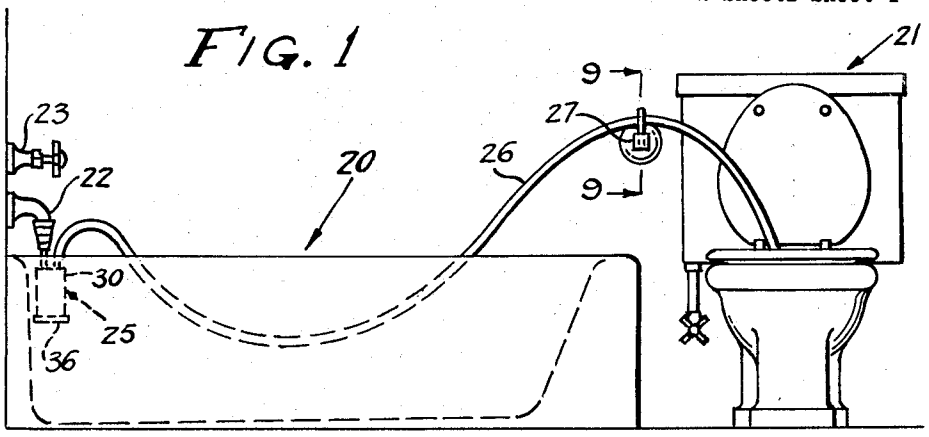
Sept. 27, 1960 H. B. LLOYD 2,954,046

BATHROOM APPLIANCE

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FIG. 1



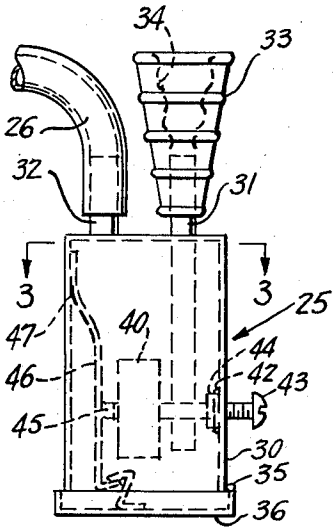


FIG. 2

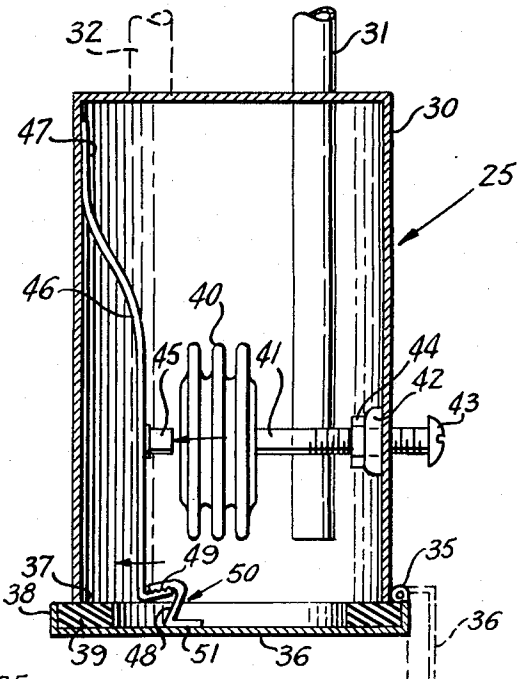


FIG. 4

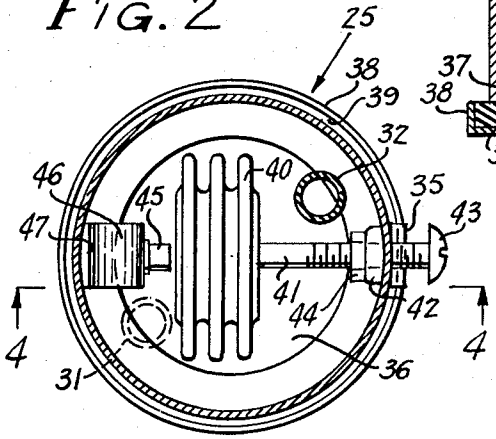
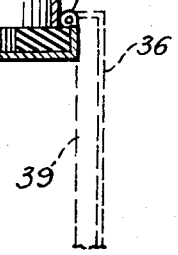


FIG. 3



INVENTOR.
HAROLD B. LLOYD
BY Kimmel & Crowell
ATTORNEYS

Sept. 27, 1960 H. B. LLOYD 2,954,046

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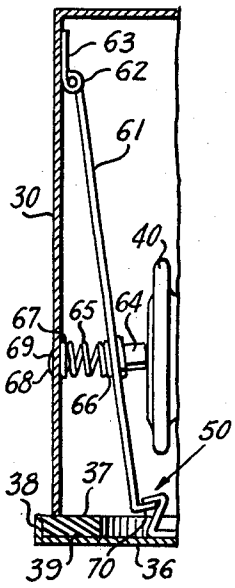


FIG. 6

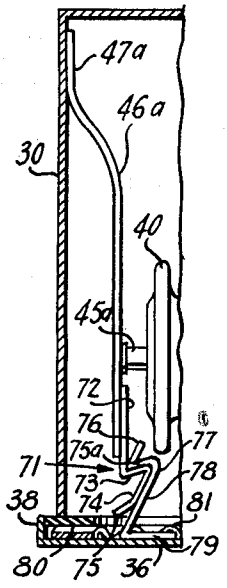


FIG. 7

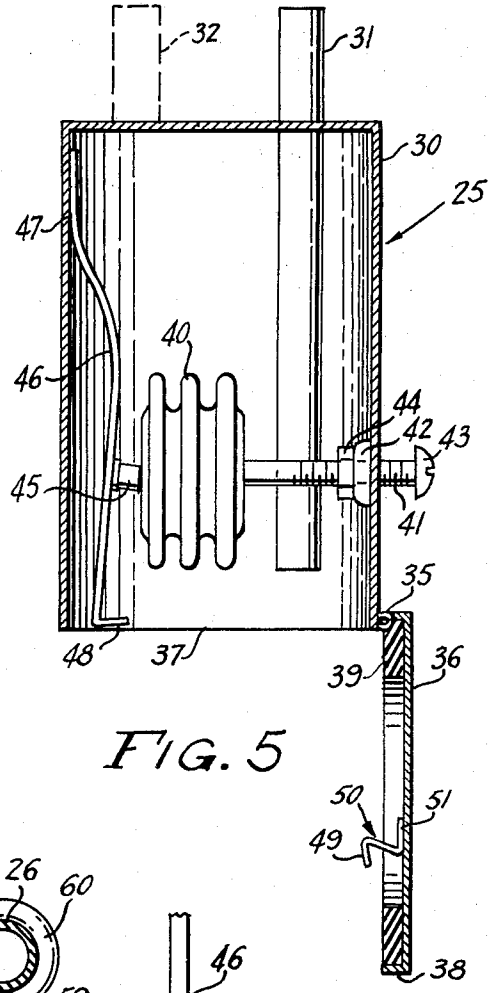


FIG. 5

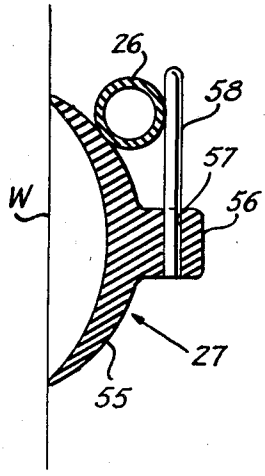


FIG. 9

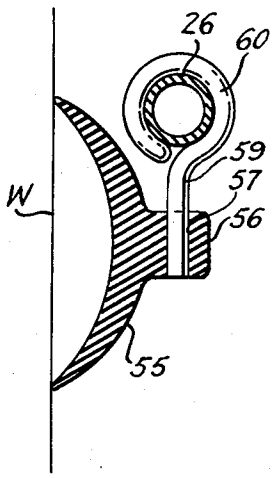


FIG. 10

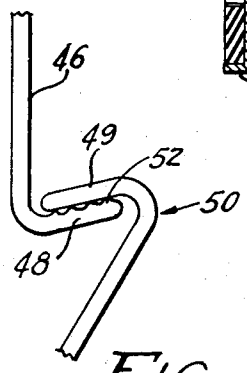


FIG. 8

INVENTOR.
HAROLD B. LLOYD
BY
Kimmel & Crowell
ATTORNEY

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2,954,046

BATHROOM APPLIANCE

Harold B. Lloyd, 2037 S. Cedar St., Sioux City, Iowa

Filed Dec. 2, 1959, Ser. No. 856,822

6 Claims. (Cl. 137—467)

This invention relates to a bathroom appliance, and has particular applicability to a syringe, or the like, which is adapted to be attached to a bathroom faucet and employed for the purpose of giving douches, enemas, or the like.

A primary object of the invention is the provision of an improved safety device through which water from the faucet must pass before introduction into the body of the user which will operate positively to interrupt the flow of water in the event that the temperature of the water becomes excess to an uncomfortable or dangerous degree.

An additional object of the invention is the provision of such a device which includes thermostatic means for completely dumping the device in order to preclude any possibility of overheated water reaching the body of the user.

Still another object of the invention is the provision of a device of this character employing the bellows thermostat which is reliable to a high degree and susceptible to adjustment to control a particular temperature for dumping the device with a high degree of accuracy.

Still another object of the invention is the provision of a device of this character which is sturdy and durable in construction, reliable and efficient in operation, and relatively simple and inexpensive to manufacture, assemble and utilize.

Still other objects reside in the combinations of elements, arrangements of parts, and features of construction.

Other objects will in part be obvious and in part be pointed out as the description proceeds and shown in the accompanying drawings wherein there are disclosed preferred embodiments of this inventive concept.

In the drawings:

Figure 1 is an elevational view, certain concealed elements being shown in dotted lines, showing the device of the instant invention in position for use in a bathroom;

Figure 2 is a side elevational view of the device of the instant invention, with certain interior elements being indicated in dotted lines;

Figure 3 is an enlarged sectional view taken substantially along the line 3—3 of Figure 2, as viewed in the direction indicated by the arrows;

Figure 4 is a sectional view taken substantially along the line 4—4 of Figure 3, as viewed in the direction indicated by the arrows;

Figure 5 is a view similar to Figure 4 but showing the parts in a different position of adjustment;

Figure 6 is a fragmentary sectional view of a slightly modified form of construction;

Figure 7 is a view similar to Figure 6, but disclosing a further modification;

Figure 8 is an enlarged fragmentary view of a constructional detail;

Figure 9 is a sectional view of a supporting element adapted to be used in conjunction with the device of the instant invention, taken substantially along the line 9—9

of Figure 1, as viewed in the direction indicated by the arrows; and

Figure 10 is a view similar to Figure 9 but showing a modified form of construction.

Similar reference characters refer to similar parts throughout the several views of the drawings.

Having reference now to the drawings in detail, and more particularly to Figure 1, there is generally indicated at 20 a conventional bathtub, and at 21 a conventional toilet, such as may be found in a bathroom.

The tub includes a faucet 22 and a control handle 23 therefor and the device of the instant invention is generally indicated at 25 as attached to the faucet, all as will be more fully described hereinafter.

A flexible tube 26 extends from the device of the instant invention, and terminates in a conventional nozzle or the like, not shown.

A suitable hose support 27, also to be more fully described hereinafter, is adapted to be attached to the wall at a suitable location for supporting the hose in a convenient position.

Referring now particularly to Figures 2 to 5, inclusive, the device of the instant invention comprises a receptacle 30, which is closed at its top, and provided with an inlet pipe 31 and an outlet pipe 32. The pipe 31 has attached thereto a flexible conical cup member 33, of conventional design, which is provided with interior corrugations 34 and which is adapted to be frictionally engaged over the mouth of the faucet 22, and held in position thereon in a known manner. Receptacle 30 has hingedly secured thereto, as by means of a hinge 35, a bottom plate 36, which completely closes the open bottom 37 of the receptacle. The member 36 includes an annular flange, or rim, 38, of a slightly greater diameter than the diameter of the receptacle, and has seated therein a resilient sealing gasket 39, for the purpose of effectively closing the receptacle or container and rendering the same substantially fluid tight.

Positioned interiorly of receptacle 30 is a temperature responsive bellows type thermostatic element 40, which is fixedly secured to a screw threaded element 41, which extends, through a threaded bushing 42, through a suitable opening in the side wall of container 30, and terminates in a head 43. A lock nut 44 is positioned on the screw 41 interiorly of the container.

Positioned immediately adjacent the center of bellows 40 and in alignment with screw 41 is a stud 45, which is carried by a bowed leaf spring member 46 which is secured at its upper end 47 to the side wall of container 30, in any desired conventional manner.

The lower end of spring 46 includes an offset portion 48 which extends substantially parallel to the bottom plate 36 when the latter is in closed position, and is adapted to engage the upper leg 49 of a substantially Z-shaped latch member 50. The lower leg 51 of member 50 is adapted to be secured in any desired manner, as by soldering or the like, to the inner surface of bottom plate 36. As best shown in Figure 8, the confronting surface of either leg 49 or offset portion 48 may be corrugated, as indicated at 52, in order to prevent sticking of the parts such as would preclude ready disengagement of the device when affected in a manner as now will be explained.

From the foregoing the use and operation of the device should now be readily understandable. The cover 36 is closed, and the temperature of the water from faucet 22 is suitably regulated by means of the handle 23. After the desired temperature has been achieved, the cup 33 is attached to the faucet, and the hose 26 strung over the support member 27 to a position desired for use. As long as the temperature of the water remains constant, the water will flow through the receptacle 30 and outlet

pipe 32 and through the flexible tube 26 to the point of use.

However, an increase in temperature will cause expansion of bellows 40, the end of which will then engage the contact member 45 to move the resilient spring 46 to the position indicated in Figure 5. This will cause the disengagement of offset portion 48 from leg 49, whereupon the bottom plate 36 will drop to the position shown in Figure 5, and water entering through inlet 31 will immediately pass out of the open bottom 37 of the container without any possibility of its entering the outlet 32, and hence the tube 26 to be conveyed to the user's body.

The support structure 27 is best shown in Figure 9, and comprises a vacuum cup 55, having a projecting lug 56 thereon, which is provided with a bore 57. A peg 58 is suitably secured in the bore 57, and the hose 26 may be rested between the peg 58 and the convex wall of the vacuum cup. Obviously, the vacuum cup may be secured to any desired position on the wall W for most convenient use and application.

Figure 10 discloses a slightly modified form of construction, wherein the vacuum cup 55 includes a lug 56 having a bore 57 therethrough, but the peg is replaced by the shank 59 of an I-member 60, through which the tubular member 26 is adapted to be passed, in order to avoid any possibility of disengagement of the hose from the support.

Figure 6 discloses a slightly modified form of construction, wherein the spring 46 is omitted, and is supplanted by a relatively inflexible rod or plate 61, which is hinged as by a hinge pin 62 to a lug 63 which is suitably secured to the interior of the container 30. A projecting member 64, similar to the member 45, is provided immediately adjacent the end of the bellows 40, and a coil spring 65 is seated between a cup 66 positioned on the opposite side of member 61 in alignment with projection 64. The other end of the spring 65 is seated on a projection 67 carried by a lug 68 which is secured as by a rivet 69 to the interior of the wall of the container 30. The lower end of the member 61 is provided with an offset extending portion 70, which is adapted to engage the Z-shaped member 50 and which functions identically to the previously described offset portion 48.

Still another modified form of the invention is disclosed in Figure 7. In this form a resilient spring member 46*a* is secured at one end 47*a* to the top of the side wall of container 30, and includes a projection 45*a*, which functions identically to the previously described projection 45, being adapted to be moved by the bellows 40.

Secured to the lower end of spring member 46*a*, in any desired manner by soldering, is a latch member generally indicated at 71, which includes a straight portion 72 for securement to the lower end of the member 46*a*, and an inwardly and upwardly extending portion 73, which terminates in a downwardly extending portion 74 having an offset lip 75. The arcuate portion 73 is adapted to engage beneath a projecting member 75*a*, which has an upwardly extending lug 76, and includes a curved offset portion 77 which overlies the portion 73. An inclined extension 78 extends downwardly to a horizontal leg 79, which is suitably secured to the inner side of the base plate 36.

In this modification, the soft rubber washer or gasket 39 is supplanted by a relatively thin washer 80, in the same location, which is supported by a circular leaf spring 81, which urges the same upwardly against the open bottom of the receptacle 30.

The modified constructions of Figures 6 and 7 operate in exactly the same manner as the previously described modification.

From the foregoing it will now be seen that there is herein provided an improved bathroom appliance which affords a high degree of safety to the user of an enema or douche employing the same, and which accomplishes all of the objects of this invention, and others, including many advantages of great practical utility and commercial importance.

As many embodiments may be made of this inventive concept, and as many modifications may be made in the embodiments hereinbefore shown and described, it is to be understood that all matter herein is to be interpreted merely as illustrative, and not in a limiting sense.

I claim:

1. A bathroom appliance adapted to be connected between a water faucet and a flexible tube leading to a syringe, said appliance comprising a container having a top and an open bottom, an inlet pipe extending from a point near the bottom of said container through said top, means for securing said inlet pipe to a water faucet, an outlet pipe in said top, a closure plate for said open bottom hingedly secured to said container, latch means normally securing said plate in closed position, and temperature responsive means in said container for releasing said latch means upon an increase in temperature beyond a predetermined point to allow said plate to drop by gravity to open position and break the fluid connection afforded by said container between said inlet and said outlet pipes.

2. A bathroom appliancce adapted to be connected between a water faucet and a flexible tube leading to a syringe, said appliance comprising a container having a top and an open bottom, an inlet pipe extending from a point near the bottom of said container through said top, means for securing said inlet pipe to a water faucet, an outlet pipe in said top, a closure plate for said open bottom hingedly secured to said container, latch means normally securing said plate in closed position, and temperature responsive means in said container for releasing said latch means upon an increase in temperature beyond a predetermined point to allow said plate to drop by gravity to open position and break the fluid connection afforded by said container between said inlet and said outlet pipes, said temperature responsive means including a bellows type thermostat.

3. A bathroom appliance adapted to be connected between a water faucet and a flexible tube leading to a syringe, said appliance comprising a container having a top and an open bottom, an inlet pipe extending from a point near the bottom of said container through said top, means for securing said inlet pipe to a water faucet, an outlet pipe in said top, a closure plate for said open bottom hingedly secured to said container, latch means normally securing said plate in closed position, temperature responsive means in said container for releasing said latch means upon an increase in temperature beyond a predetermined point to allow said plate to drop by gravity to open position and break the fluid connection afforded by said container between said inlet and said outlet pipes, said temperature responsive means including a bellows type thermostat, and said latch means including a spring biased member movable by the expansion of said bellows type thermostat.

4. A bathroom appliance adapted to be connected between a water faucet and a flexible tube leading to a syringe, said appliance comprising a container having a top and an open bottom, an inlet pipe extending from a point near the bottom of said container through said top, means for securing said inlet pipe to a water faucet, an outlet pipe in said top, a closure plate for said open bottom hingedly secured to said container, latch means normally securing said plate in closed position, temperature responsive means in said container for releasing said latch means upon an increase in temperature beyond a predetermined point to allow said plate to drop by gravity to open position and break the fluid connection afforded by said container between said inlet and said outlet pipes, said temperature responsive means including a bellows type thermostat, and said latch means including a spring biased member movable by the expansion of said bellows type thermostat, said last mentioned

member comprising a leaf spring having an offset end, and a latch member on said closure plate engageable by said offset end.

5. A bathroom appliance adapted to be connected between a water faucet and a flexible tube leading to a syringe, said appliance comprising a container having a top and an open bottom, an inlet pipe extending from a point near the bottom of said container through said top, means for securing said inlet pipe to a water faucet, an outlet pipe in said top, a closure plate for said open bottom hingedly secured to said container, latch means normally securing said plate in closed position, temperature responsive means in said container for releasing said latch means upon an increase in temperature beyond a predetermined point to allow said plate to drop by gravity to open position and break the fluid connection afforded by said container between said inlet and said outlet pipes, said temperature responsive means including a bellows type thermostat, and said latch means including a spring biased member movable by the expansion of said bellows type thermostat, said last mentioned

member comprising a piece hingedly secured to the interior of said container, and a coil spring interposed between said piece and the wall of said container.

6. A bathroom appliance adapted to be connected between a water faucet and a flexible tube leading to a syringe, said appliance comprising a container having a top and an open bottom, an inlet pipe extending from a point near the bottom of said container through said top, means for securing said inlet pipe to a water faucet, an outlet pipe in said top, a closure plate for said open bottom hingedly secured to said container, latch means normally securing said plate in closed position, temperature responsive means in said container for releasing said latch means upon an increase in temperature beyond a predetermined point to allow said plate to drop by gravity to open position and break the fluid connection afforded by said container between said inlet and said outlet pipes, and means for varying the temperature to which said temperature responsive means responds.

No references cited.