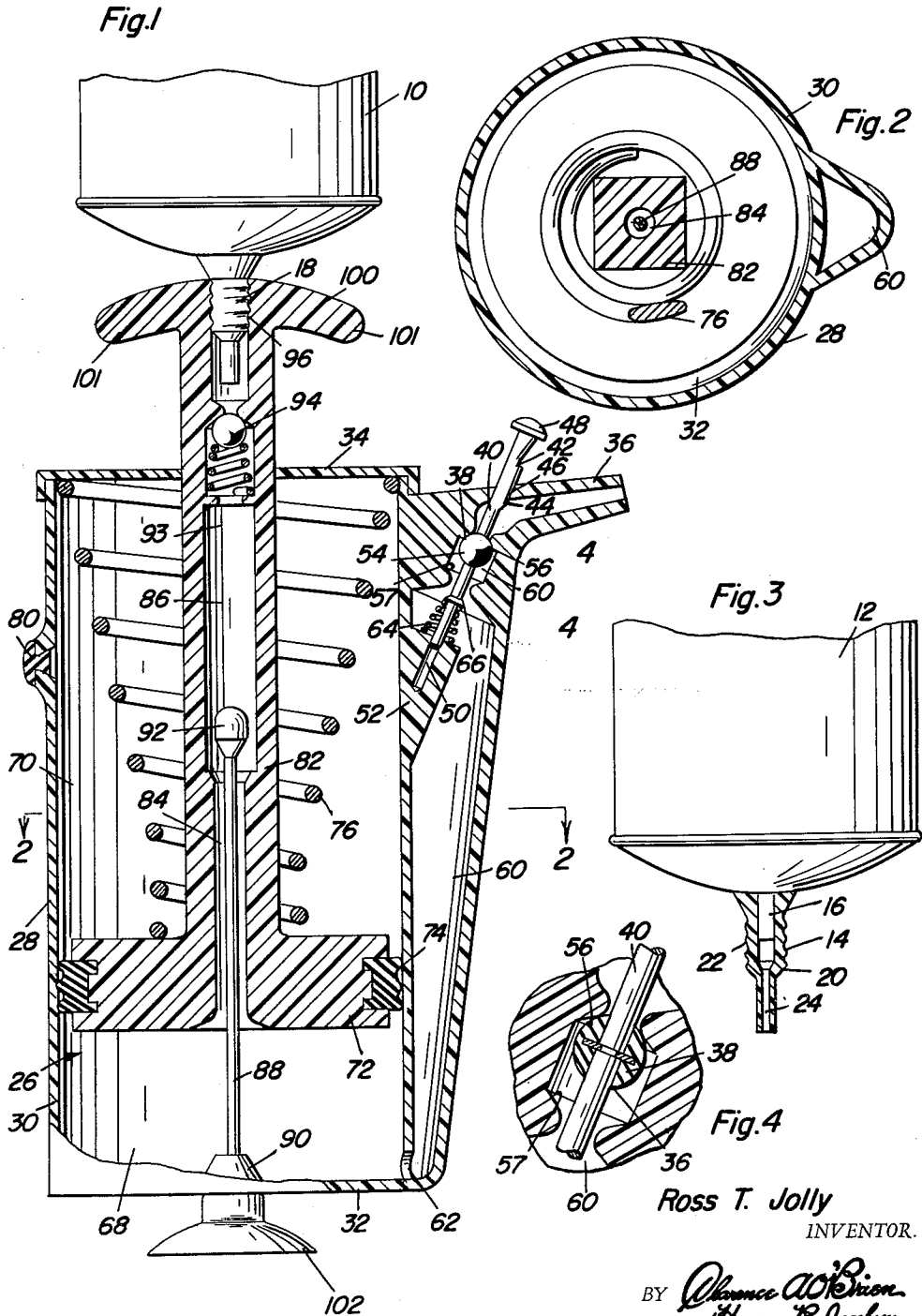


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SHAVING SOAP WARMER

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SHAVING SOAP WARMER

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1 Claim. (Cl. 222—335)

This invention relates to a warmer for shaving soap and more particularly to a warmer for shaving soap of the type dispensed from a pressure container.

The benefits and advantages of a warm shave are known, but it is dangerous to warm the soap in a regular pressure container due to possible explosion. Furthermore, it would require a long period of time and considerably too much heat to warm a full size container.

An object of the invention is to provide a device for warming a small quantity of soap that is, enough for one or more shaves. The warmer in accordance with this invention consists essentially of an auxiliary container to receive a charge of shaving soap from a pressure container or any other source, preferably the former. Thereafter the warmer may be immersed in a basin of hot water, for example, while a person is washing his face or preparing the razor for the shave. The soap in the container will be in heat exchange relationship with the warm water in the basin.

The warmer has a control valve enabling the warmed soap to be expelled in any amount whereby it is readily available for use.

One of the features of the invention is embodied in means by which to apply pressure to the charge of soap in the container. In case the pressure is lost, the pressure applying means may be used to recharge the ordinary container that is, the purchased container having the shaving soap therein.

Accordingly, a further and general object of the invention is to provide a container to receive a charge of soap lather and warm the same, after which it may be discharged into the hand or on the fingers of the person using the soap.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

FIGURE 1 is a longitudinal sectional view of a warmer in accordance with the invention.

FIGURE 2 is a sectional view taken on the line 2—2 of FIGURE 1.

FIGURE 3 is a sectional view of an adapter tip to be used with a pressure container to enable the soap from the pressure container to be discharged into the warmer.

FIGURE 4 is a fragmentary enlarged sectional view taken on the line 4—4 of FIGURE 1.

In the accompanying drawings a conventional pressure container 10 is illustrated. This conventional pressure container has a quantity of shaving soap therein and is illustrated as being one possible source of shaving soap under pressure to be used for shaving. Conventional pressure container 12 (FIGURE 3) is equipped with an adapter tip 14 fitting on the discharge nozzle 16 thereof. Adapter tip 14 is applied to the discharge nozzle 14 in those cases where this is necessary i.e. when the conventional discharge nozzle does not have a threaded part 18 (FIGURE 1) made thereon in the manufacture thereof. Adapter tip 14 is composed of a sleeve 20 having a threaded part 22 together with an elongate passage 24 through which the shaving soap is discharged.

Warmer 26 consists of a plastic container 28, although the materials of construction may be varied. Container 28 has a cylindrical side wall 30, a bottom wall 32 and

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a top wall 34. Spout 36 is connected to the side wall 30 and has a valve assembly 38 therein. The valve assembly consists of a valve rod 40 having a notch 42 intermediate its ends and adapted to engage on the lip 44 of the passage 46 in spout 36 in which the valve rod operates. Push button 48 is at the upper end of the valve rod, and the lower end of the valve rod is in a tubular guide 50 formed in a thickened part 52 of cylindrical side wall 30. The valve has a valve element 54, for instance, a ball, held pressed against valve seat 56 which is intermediate the ends of passageway 60, the latter communicating with stem 36 and an aperture 62 in side wall 30. Spring 64 seats on a fixed collar 66 that is attached to valve rod 40 and on an enlarged part 52 of the thickened part 52 of wall 30. The bias of the spring is in a direction to hold the valve assembly 38 in a normally closed position, however, the spring will yield when the push button 48 is depressed thereby registering the spout 36 with aperture 62 by way of passage 60.

Aperture 62 is in communication with the lower part 68 of chamber 70. The chamber is enclosed by the side walls, top and bottom wall of container 28. A piston 72 is mounted for reciprocation in chamber 70 and has a piston ring 74 thereon. Spring 76 has its lower end seated on piston 72 and its upper end bearing against wall 34. The spring constantly biases the piston in a downward direction tending to fore-shorten the lower part 68 of chamber 70. The upper part of the chamber has a fusible plug 80 therein to function as a safety valve. If the container should become overheated, the safety plug 80 will melt or sufficiently distort so as to be blown out. Piston rod 82 is attached to the head of piston 72 and constitutes a part thereof. The piston rod 80 is hollow and contains a bore 84 together with counterbore 86. Valve rod 88 extends through bore 84 and is attached by anchor 90 to the lower wall 32 of container 28. A valve head or element 92 is secured to the upper part of valve rod 88 and is operable in counterbore 86. It is so dimensioned that it will fit within the bore 84 to exercise a valving function of the bore and counterbore which constitutes passageway 93 extending throughout the length of the piston and piston rod.

Normally closed check valve 94 is at the upper part of passageway 93 and is spaced inwardly slightly from the threaded socket 96 at the upper extremity of the passageway. The threaded socket receives the threaded part 18 of container 10 or the threaded part 22 of adapter 14 so that the pressure container 10 or 12 may be registered with passageway 93. Handle 100 has lugs 101 and is secured to the upper extremity of the piston rod 82, and there is a suction cup 102 attached to the lower wall 32 of container 28.

In use and operation pressure container 10 or 12 is attached as shown in FIGURE 1. By opening the valve of the pressure container, for instance by deflecting the container 10, shaving soap passes under pressure to check valve 94, passageway 93 and enters the lower part 68 of chamber 70. As the pressure builds up in the lower part of chamber 70, the piston 72 lifts, but valve element 92 remains stationary. When the valve element 92 enters the bore 84 of passageway 93, no additional shaving soap can enter the passageway 93.

Thereafter the suction cup 102 may be used to attach the container within the basin or the like of hot water. This heats the contents of the lower part 68 of chamber 70 thereby increasing the pressure therein. Even in the absence of increased pressure by the application of heat, the contents of the lower part 68 of chamber 70 are under pressure exerted by the yielding opposition of spring 76 to the admission of soap into the lower part 68 of chamber 70. When the soap is heated, should the pressure in chamber 68 increase beyond an expected amount,

the piston 72 will move upward against the yielding opposition of spring 76, and this is the reason for having valve element 92 of a diameter to fit within the bore 84.

When the shaver desires a charge of heated shaving soap, he merely opens the valve assembly 38 and permits the soap to issue through spout 36 into his hand.

Notice that the warmer may be used as a pump to replenish the pressure in the pressure container 10 or 12 by attaching the end of the pressure container to spout 36. Further, note that any residual shaving soap may be returned to the pressure container 10 by attaching the pressure container to spout 36, pushing down on handle 100 and opening valve assembly 38.

Note that valve 38 is operable between valve seats 56 and 57. Lugs 101, notch 42 and seats 56 and 57 of valve 38 are used when the pressure container has lost its pressure or nearly so. The container is put in place in the normal way and the rod 40 is pushed in until it catches in notch 42. The pressure container with depleted pressure has its valve opened, and the lugs 101 are pulled up thereby drawing out the remaining contents of the pressure container. If vacuum has been formed in the pressure container, it may be relieved by puncturing the container.

It is to be clearly understood that although this invention has been described as being principally useful in connection with warming shaving soap, other substances may be used with equal facility with the warmer.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

In a dispensing receiver for pressurized fluids, the combination of a cylinder having an outlet communicating with one end portion thereof, a piston reciprocable in said cylinder, a piston rod connected to said piston and projecting slidably outwardly through the other end of the cylinder, said piston and said piston rod being provided with an axial passage adapted at the outer end of the rod for connection to a source of fluid under pressure whereby the stated fluid may be delivered into said one end portion of the cylinder for dispensing through said outlet, a check valve provided in said passage for permitting flow of fluid only from the outer end of the piston rod into said one end portion of said cylinder, resilient means provided in said cylinder and biasing said piston toward the outlet in opposition to pressure of fluid in said one end portion of the cylinder, normally closed dispensing valve means provided in said outlet, said passage in said piston rod being provided with a restricted passage portion, and additional valve means comprising a valve stem secured at one end thereof in said one end portion of said cylinder and extending through said restricted passage portion, and a valve element provided on said stem in said passage and receivable in said restricted passage portion for closing the same when said piston is slid away from said outlet by an abnormal pressure of fluid in said one end portion of the cylinder.

References Cited in the file of this patent

UNITED STATES PATENTS

402,640	Woodward	May 7, 1889
720,492	Sedberry	Feb. 10, 1903
1,224,914	Field	May 8, 1917
1,764,823	Bowlus	June 17, 1930
1,979,428	Wheeler	Nov. 6, 1934
2,352,680	Armitage	July 4, 1944