

Nov. 9, 1943.

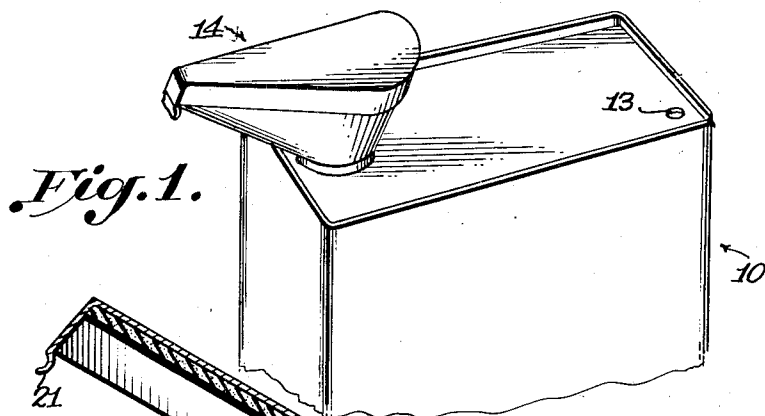
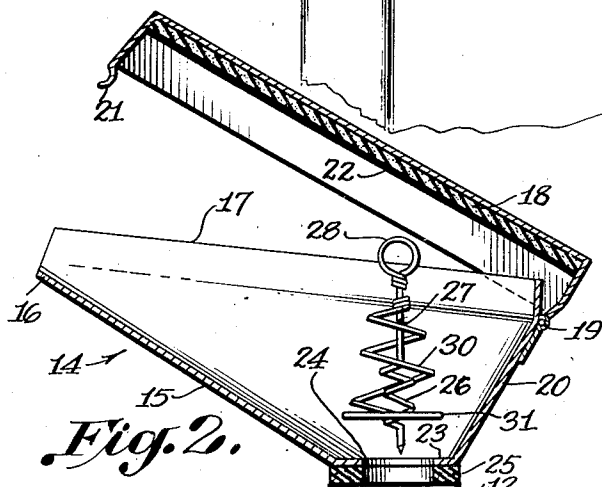
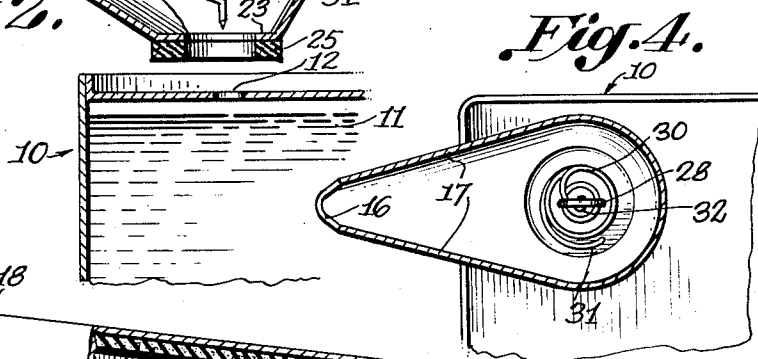
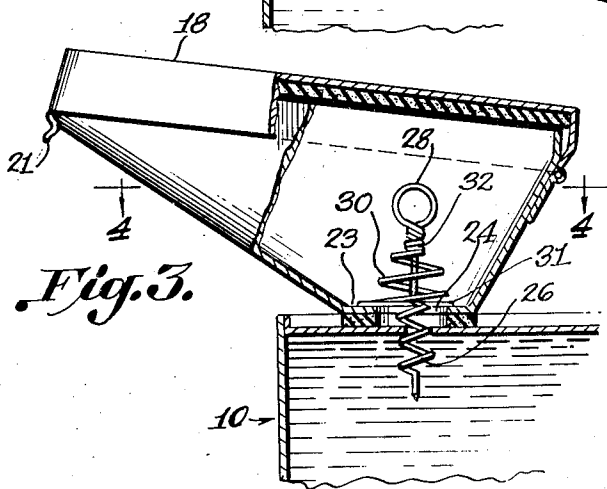
F. POLLIFRONE

2,333,952

CAN POURING SPOUT

Filed April 16, 1940

2 Sheets-Sheet 1



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2 Sheets-Sheet 2

Fig. 5.

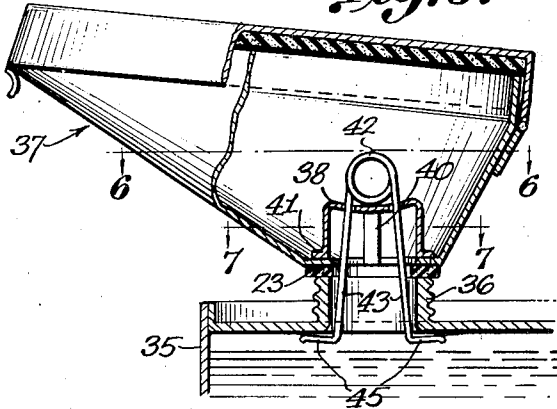


Fig. 6.

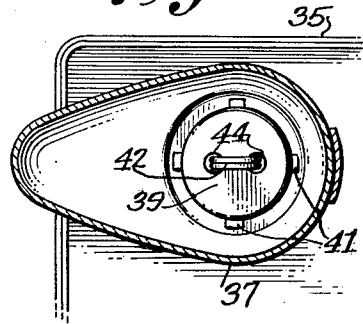


Fig. 8.

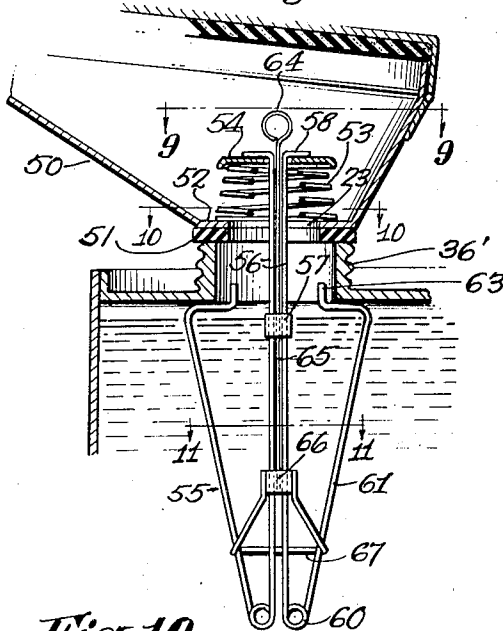


Fig. 7.

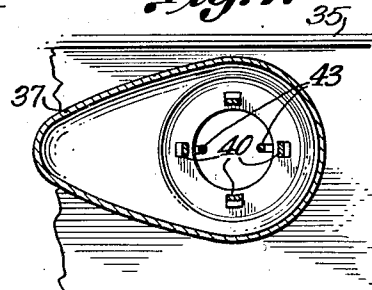


Fig. 9.

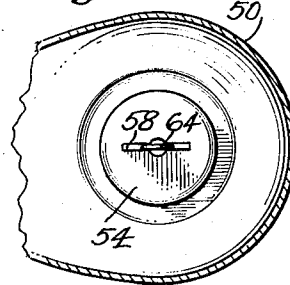


Fig. 10.

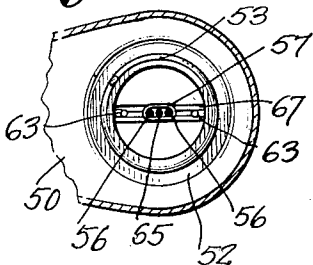
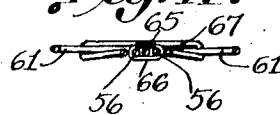


Fig. 11.



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UNITED STATES PATENT OFFICE

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CAN POURING SPOUT

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Application April 16, 1940, Serial No. 329,941

5 Claims. (Cl. 221—23)

This invention relates to a can pouring spout and has for an object to provide a can pouring spout which may be attached to and through the outlet of a can containing a liquid such as may be used in a household or a garage.

A further object of this invention is to provide an attachable and detachable can pouring spout which may be attached to and detached from cans such as one or five gallon cans, or even smaller ones, such as used in households for fruit juices or other liquids irrespective of whether the can is initially provided with a pre-arranged outlet or whether the can is adapted to have outlet holes punched therein as by a nail or awl.

A further object of this invention is to provide a can pouring spout which may be attached to a can at any location at which there may be an existing outlet, or at which it may be desired to form an outlet.

A further object of this invention is to provide an attachable can pouring spout which has a closeable lid whereby the contents of the can may be temporarily sealed against evaporation or contamination while the spout is left in attached position.

A further object of this invention is to provide an attachable spout which may be detached from the can and readily re-attached to the same or another can without necessitating the use of tools.

With the foregoing and other objects in view as will hereinafter become apparent, this invention comprises the constructions, combinations, and arrangement of parts hereinafter set forth, disclosed and shown on the accompanying drawings. In these drawings:

Figure 1 is a perspective view of a can to which this invention has been applied.

Fig. 2 is an elevational sectional view with the parts in separated position as the spout is about to be applied to a can.

Fig. 3 is an elevation partly in section of the spout in attached position on a can with the lid in closed position.

Fig. 4 is a sectional view on line 4—4 of Fig. 3.

Fig. 5 is a view similar to Fig. 3, showing a different form of attaching means especially suitable where there is a large pre-formed opening in the can.

Figs. 6 and 7 are section views on line 6—6 and 7—7 of Fig. 5.

Fig. 8 is a sectional view of still another form of this invention.

Figs. 9, 10 and 11 are section views on lines 9—9, 10—10 and 11—11 of Fig. 3.

There is shown at 10 a representation of a can of any size such as generally used for liquids of any nature whether oil, gasoline, or home supplies. As here shown, the can 10 has had a pair of holes 12 and 13 punched in diagonally opposite corners thereof, one hole 12 serving as a liquid outlet, while the other hole 13 acts as an air hole.

The spout 14 of this invention consists of an elongated funnel-shaped member 15 having a pouring gauge 16 depressed between the opposite side walls 17. A lid 18 is hinged as at 19 to the back wall 20 of the spout and is provided at its forward end with a depending spring tip 21 adapted, in closed position, to extend beneath the pouring lip 16 as shown in Fig. 3, to hold the lid 18 in closed position. The inside of the lid 18 may be provided with a gasket member 22 which may cooperate with the edges of the walls of the spout to seal the same when in closed position.

The bottom of the spout has a horizontal floor 23 through which extends the opening 24 for the liquid 11 to enter from the opening 12 of the can 10. A perforated gasket 25 is secured to the bottom of the floor 24 by any suitable cement so that when the spout 14 is secured to the can 10 by any one of the fastening means hereinafter described, the gasket 25 serves to prevent leakage between the spout and the can, and insures that the liquid 11 will flow through the spout 14 to the pouring lip 16.

In the form of the invention shown in Figs. 2, 3 and 4, the fastening means for securing the spout on the can consists of a comparatively small boring screw 26 terminating in a vertical stem 27 which ends in a finger loop 28. Surrounding this boring screw 26 is a spiral-shaped spring 30 having a large end 31 of a diameter somewhat larger than the opening 24 in the spout floor 23, while its smaller end 32 is wound about the stem 27 of the boring screw 26.

In operation, the spout 14 is placed over any suitably located pouring hole 12 in the can 10. With the lid 18 in raised position, the boring screw 26 is inserted through the hole 24 of the spout floor 23 through the hole in the gasket 25 and threaded through the opening 12 in the can 10 to bring it to the position shown in Fig. 3, the diameter of the screw portion of the boring screw 26 being greater than the diameter of the opening 12, so that one of the whirls of the

spring 26 will extend beneath the edge of the opening 12 in the can 10.

It will be noted from Fig. 2 that the length of the spiral spring 30 is substantially equal to the length of the boring screw 26, and as above noted the diameter of the end 31 of the spring 30 is greater than the diameter of the opening 24 in the spout floor 23. As screw 26 is thus threaded through the opening 12 the end 31 of spring 30 will abut against the floor 23 of the spout 14, whereby the spiral spring 30 will compress to the position shown in Fig. 3, while the boring screw 26 may extend a slight amount, it being intended that the boring screw 26 will be fairly stiff while the spiral spring 30 will be comparatively yieldable. As a result thereof, it will be obvious that the spiral spring 30 under compression will push the floor 23 of the spout 14 downwardly against the gasket 25, and thus against the top of the can 10 while the boring screw 26 will hold it in this position against accidental separation.

To pour the contents of liquid 11 from the can 10 the spring top 21 of lid 18 will be pulled forwardly by one's finger, permitting the lid 18 to be raised and the liquid to be poured from the opening 12, the spout floor opening 24, and out through the pouring lip 16. If only part of the contents of the can 10 are to be used, the lid 18 may be closed and held in closed position by the spring top 21, thus preventing the evaporation or contamination of the liquid through the pouring hole while any other suitable means may be used to close the air hole 13.

In Figs. 5, 6 and 7 the invention is shown as applied to a can 35 having a pre-formed threaded opening 36 of a substantial diameter that is greater than the diameter of the opening such as 12, as formed by a punch or an awl. In this form, the spout 37 is identical in construction with the spout 14. The difference between this form of the invention and the form already described is substantially in the fastening means alone. The fastening means in this form consists of a spider 38 having a roof 39 provided with depending legs 40 terminating in feet 41 so spaced that they will abut on the top of the floor 23 of the spout 37. A coiled spring 42 has arms 43 extending through perforations 44 in the spider roof 39 and terminating in outwardly flared feet 45.

In operation, the spider feet 41 may or may not be permanently secured to the floor 23, as desired. In either case, to attach the spout 37 to a can 35 having a pre-formed opening 36 of substantial size, the arms 43 are pressed toward each other by one's fingers which may pass between the spider legs 40 to hold the coiled spring outwardly flared legs 45 sufficiently close together so that they may pass through the aperture in the pre-formed opening 36. When sufficiently far in they are released and then will extend below the edges of the perforation underneath the top of the can 35 holding the spout 37 in operative position just as in the previous form. In the spout 50, shown in Figs. 8 to 11 inclusive, the details of the spout are substantially identical except that the gasket 51 beneath the spout floor 52 is shown as somewhat larger so that it may take care of pre-formed can holes 36' of varying diameters.

In this form a compression coiled spring 53 is provided beneath a cap 54 with one end of the spring abutting the cap while the other end of the spring abuts the spout floor 52. Extending through the cap 54 is a locking device 55 con-

sisting of a pair of parallel arms 56 fastened together by a tie member 57 having oppositely extending fingers 58 above the cap 54. The lower ends of the arms 56 are provided with spring coils 60 and have upwardly and outwardly extending legs 61 somewhat similar to the construction of the conventional safety pin. The upward ends of the legs 61 have inwardly turned feet 62 ending in upturned toes 63. Also extending down through the cap 54 between the arms 56 is a releasing device consisting of a finger loop 64 having a stem 65 slidably passing through the tie member 57 and secured to a second and slidable tie member 66. Also secured to this tie member 66 is a loop 67 extending around both legs 61, the diameter of loop 67 being at least slightly less than the diameter of the opening through the pre-formed can outlet 36'.

To attach the spout 50 in operative position it is only necessary to push the arms 56 through the opening 23 of the floor spout 52 and then through the gasket 51 and opening in the pre-formed outlet 36'. The legs 61 will yield inwardly due to their coiled springs 60 until the feet 62 are beneath the edges of the opening of the outlet 36' and will be held in this position against further expansion by the upwardly extending toes 63, thus locking the spout in operative position. To release the spout 50 when desired, the finger loop 64 is grasped and raised vertically causing the releaser loop 67 to bend the legs 61 toward each other, withdrawing the feet 62 from beneath the edges of the opening until they can pass through the opening, thereby detaching the spout. The compression spring 53 serves to hold the spout 50 in operative position and at the same time serves to keep the cap 54 sufficiently spaced from the spout floor 52 so that the liquid 11 in the can may pour freely therefrom.

The novel features and the operations of this device will be apparent from the foregoing description. While the device has been shown and the structure described in detail, it is obvious that this invention is not to be considered limited to the exact form disclosed and that changes may be made therein within the scope of what is claimed without departing from the spirit of the invention.

Having thus set forth and disclosed the nature of this invention, what is claimed is:

1. A can pouring spout comprising a spout member, a pouring lip on said spout member, a perforated spout floor, a can attaching means cooperating with said spout floor and extendable therethrough to beneath the edge of a preformed pour aperture in the can to which it is to be attached, said can attaching means comprising a member extendable through the perforated spout floor to beneath the edge of said pour aperture of said can, and a second member cooperating with said first member and abutting the top of the spout floor, said first member being a boring screw of greater diameter than the diameter of said preformed pour aperture of said can, and said second member being of greater diameter than the diameter of said spout floor perforation.

2. A can pouring spout comprising a spout member, a pouring lip on said spout member, a perforated spout floor, a can attaching means cooperating with said spout floor and extendable therethrough to beneath the edge of a preformed pour aperture in the can to which it is to be attached, said can attaching means comprising

a member extendable through the perforated spout floor to beneath the edge of said pour aperture of said can, a second member cooperating with said first member and abutting the top of the spout floor, one of said members being yieldable and the other of said members being comparatively rigid in a direction parallel to the axis of the openings through the spout floor and the can top, said comparatively rigid member comprising a boring screw of greater diameter than the diameter of said preformed pour aperture.

3. A can pouring spout comprising a spout member, a pouring lip on said spout member, a perforated spout floor, a can attaching means cooperating with said spout floor and extendable therethrough to beneath the edge of a preformed pour aperture in the can to which it is to be attached, said can attaching means comprising a member extendable through the perforated spout floor to beneath the edge of said pour aperture of said can, a second member cooperating with said first member and abutting the top of the spout floor, one of said members being yieldable and the other of said members being comparatively rigid in a direction parallel to the axis of the openings through the spout floor and the can top, said yieldable member comprising a compression spring having one end abutting the spout floor and the other end abutting the outward end of said comparatively rigid member, said first member being of greater diameter than the diameter of said preformed pour aperture of said can, and said second member being of greater diameter than the diameter of said spout floor perforation.

4. A can pouring spout comprising a spout member, a pouring lip on said spout member, a perforated spout floor, a can attaching means cooperating with said spout floor and extendable therethrough to beneath the edge of a perforation in the can to which it is to be attached, said can attaching means comprising a member extendable through the perforated spout floor to beneath the edge of said pour aperture of said

can, a second member cooperating with said first member and abutting the top of the spout floor, one of said members being yieldable and the other of said members being comparatively rigid in a direction parallel to the axis of the openings through the spout floor and the can top, said yieldable member comprising a compression spring having one end abutting the spout floor and the other end abutting the outward end of said comparatively rigid member, said compression spring being spiral in shape, said comparatively rigid member comprising a boring screw and a finger loop at the outward end of said boring screw and having a stem securing it to said boring screw, the smaller end of said spiral spring member being fastened to said stem.

5. A can pouring spout comprising a spout member, a pouring lip on said spout member, a perforated spout floor, a can attaching means cooperating with said spout floor and extendable therethrough to beneath the edge of a perforation in the can to which it is to be attached, said can attaching means comprising a member extendable through the perforated spout floor to beneath the edge of said pour aperture of said can, a second member cooperating with said first member and abutting the top of the spout floor, one of said members being yieldable and the other of said members being comparatively rigid in a direction parallel to the axis of the openings through the spout floor and the can top, said yieldable member comprising a compression spring having one end abutting the spout floor and the other end abutting the outward end of said comparatively rigid member, said comparatively rigid member comprising a cap for said compression spring, a pair of arms extending through said cap and terminating in outwardly flaring yieldable safety spring type legs, a loop passing about its outwardly flaring legs, and a link connected to said loop and extending through said cap for drawing said legs toward each other to a diameter less than the diameter of the aperture in the floor spout.

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