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R. R. ROGERS

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CAN CLOSURE AND POURING SPOUT

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Fig. 1.

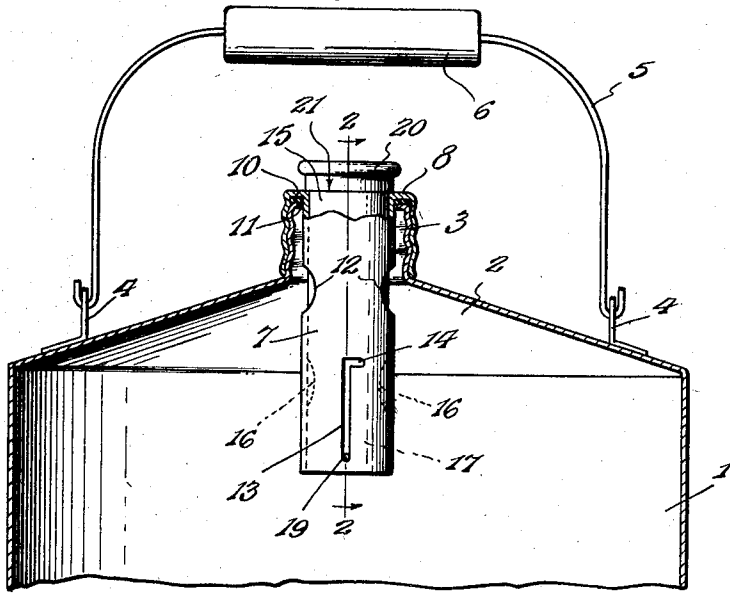


Fig. 2.

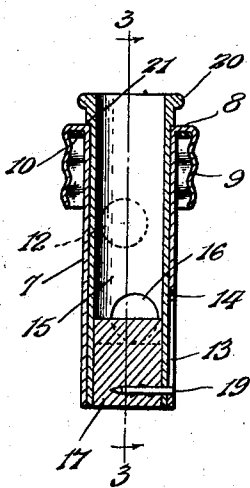
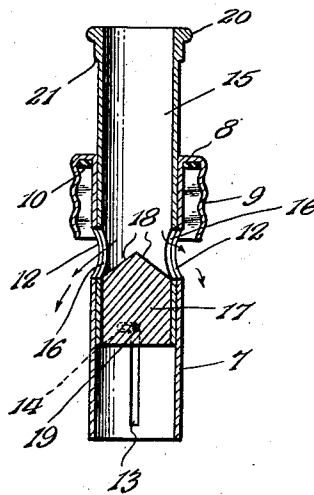


Fig. 3.



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CAN CLOSURE AND POURING SPOUT

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This invention relates to dispensing receptacles and more particularly to a can or similar storage receptacles having an improved type of closure including a spout through which liquids or other material which will easily flow may pass in order to allow the can to be filled or its contents dispensed without removing the closure.

One object of the invention is to provide a closure which may be easily applied to a neck of a can and including a sleeve extending into the can and carrying a tubular member serving as a closure for openings formed in the sleeve when in a retracted position and constituting a spout when moved outwardly.

Another object of the invention is to provide the spout forming tube with a closure at its inner end so formed that it will serve to guide liquid poured into the tube through registering openings in side portions of the tube and sleeve and thereby allow the can to be easily and quickly filled without removing the cap carrying the sleeve from the filling neck of the can.

Another object of the invention is to provide improved means for guiding and limiting sliding movement of the inner tube and prevent it from accidentally moving inwardly to a closing position while filling a can.

The invention is illustrated in the accompanying drawing, wherein

Figure 1 is a view showing the upper portion of a can in vertical section and the improved closure applied to the filling neck of the can;

Fig. 2 is a vertical sectional view through the improved closure with the inner tube in a retracted or closed position, and

Fig. 3 is a vertical sectional view through the closure taken at right angles to the view shown in Fig. 2 with the inner tube moved outwardly to an open spout forming position.

The can or receptacle, which is indicated in general by the numeral 1, may be of any size and shape desired and at its upper end is formed with a head 2 having an externally threaded neck 3 of the type ordinarily employed as a filling neck for an oil can or the like. Ears 4 extend upwardly from the head 2 and carry a bail or handle 5 upon which is

mounted a hand grip 6 so that the handle may be easily grasped and the can lifted. It will thus be seen that the can to which the improved closure has been shown applied is of a conventional construction and it will be understood that it need not be of the specific construction illustrated.

The closure constituting the subject-matter of this invention is applied to the can, as shown in Fig. 1, and includes a tubular sleeve 7 which extends into the can through the filling neck 3 and at its outer end is formed with an outwardly extending annular flange 8 carrying a depending threaded collar 9 adapted to be screwed upon the neck 3 in order to firmly connect the closure with the neck of the can. A gasket 10 is disposed against the under or inner surface of the flange 8 to bear against the flange 11 at the outer end of the neck 3 so that when the collar is screwed tightly upon the neck a tight joint will be formed and leakage between the neck and collar prevented. Openings 12 are formed in opposed side portions of the sleeve adjacent the free end of the collar, as shown in Fig. 3, and the inner free end portion of the sleeve is formed with a longitudinally extending slot 13 having a side arm or extension 14 at its upper end.

In order to provide a dispensing spout and closure for the openings 12, I employ a tube 15 which fits snugly into the sleeve 7 and in spaced relation to its inner end is formed with opposed openings 16 which correspond in size to the openings 12 and are adapted to register therewith, as shown in Fig. 3. The inner end of the tube is closed by a cork or plug 17 which fits tightly into the same between the lower end of the tube and the opening 16 and has its upper end shaped to define beveled faces 18 which slope towards the lower ends of the openings 16 so that when the tube is moved to an extended or open position liquid or other easily flowing matter poured into the tube through its open outer end or fed into the same by means of a funnel will be guided towards the registering openings 16 and 12 and easily flow into the can. A pin 19 is employed to firmly retain the plug in place and this pin projects from the tube,

as shown in Fig. 2, with its outer end portion fitting into the slot 13 and serving to guide and limit sliding movement of the tube. It should also be noted that, when the tube is drawn outwardly by grasping the bead 20 about its outer end and exerting a pulling action in an outward direction, the pin will be moved to the upper end of the slot and when the tube is turned slightly to move the opening 16 into registry with the openings 12 the pin will be disposed in the side extension 14 of the slot and thereby serve very effectively to prevent the tube from being forced downwardly towards a closed position by the weight of a funnel and material being fed from the funnel into the tube. Adjacent the bead 20, the walls of the tube are thickened externally to define an annular shoulder 21 which by engagement with the upper surface of the flange 8 serves to limit downward movement of the tube when closed and thereby prevents danger of the pin being bent by contact with the tube at the lower end of the slot and also prevents the tube from being worn or torn through at the lower end of the slot.

When the closure is in place, the sleeve 7 extends through the neck 3 into the body portion of the can and the collar 9 is screwed tightly upon the neck so that the gasket 8 will be compressed and a tight joint formed. In order to dispense liquid from the can, the tube is grasped by its bead and drawn outwardly until upward movement is stopped by the pin contacting with the sleeve at the upper end of the slot and a turning motion is then imparted to the tube to move the pin into the side extension of the slot and thereby dispose the openings 16 in registration with the openings 12. The tube will now project outwardly, as shown in Fig. 3, and constitute a spout through which the contents of the can may flow when the can is tilted in order to allow its contents to pass through the registering openings formed in the sleeve and tube. After a desired quantity has been poured from the can, it is returned to an upright position and the tube again grasped by its outer end and the tube turned to again move the pin into the upper end of the slot and pressure exerted to force the tube downwardly to the closed position shown in Fig. 2. When in this position, the openings 16 are disposed well below the openings 12 and since the tube fits snugly within the sleeve the contents of the can will be confined therein and there will be no danger of the contents of the can losing its strength or being spilled if the can should be accidentally turned over. When the can is empty and it is desired to refill it, the tube may be drawn outwardly and secured in the position shown in Fig. 3 and a funnel placed in the upper end of the tube so that liquid or other easily flowing matter may be fed into the tube. As the material fed into the tube

moves downwardly, it strikes the beveled surfaces 18 and is thereby guided towards the openings of the tube and sleeve and easily passes through these openings into the can. It will be obvious that if so desired the collar may be unscrewed from the neck 3 and the attachment entirely removed in order to allow the can to be filled through its neck.

Having thus described the invention, I claim:

1. A can closure and spout comprising a sleeve open at its outer end and formed with a side opening intermediate its length, a collar adjacent the outer end of said sleeve and engageable with a filling neck of a receptacle to support the sleeve in the neck, a tube slidable longitudinally through said sleeve from an extended spout forming position to a retracted position, the sleeve and tube being formed with side openings registering when the tube is in an extended position and disposed out of registry when the tube is retracted, a plug fixed in the lower end portion of the tube having its outer end shaped to define a beveled surface sloping downwardly toward the lower margin of the opening in the tube, and means to limit movement of the tube through the sleeve in one direction beyond a position in which the openings register.

2. A can closure and spout comprising a sleeve open at its outer end and formed with a side opening intermediate its length, a collar connected with the outer end of said sleeve and engageable with a filling neck of a receptacle to support the sleeve in the neck, a tube slidable longitudinally through said sleeve from an extended spout forming position to a retracted position, the sleeve and tube being formed with side openings registering when the tube is in an extended position and disposed out of registry when the tube is retracted, a fixed closure for the inner end of the tube having a beveled outer surface sloping downwardly toward the lower edge of the side opening of the tube, and means to limit movement of the tube through the sleeve in one direction beyond a position in which the openings register.

3. A can closure and spout comprising a tubular sleeve open at its outer end and formed with a side opening intermediate its length, an external annular flange at the outer end of said sleeve, a depending collar carried by said flange and adapted to be engaged with a neck of receptacle to support the sleeve axially of the neck, a tube snugly fitting into said sleeve and formed with a side opening in spaced relation to its inner end, a fixed closure for the inner end of said tube, the closure terminating adjacent the side opening of the tube and having a beveled surface sloping downwardly towards the lower marginal edge of the opening, said tube being slidable longitudinally through the sleeve from a retracted to an extended spout forming position and

when extended having its opening registering with the opening in the sleeve, and means to limit movement of the tube through the sleeve in one direction beyond a position in which the openings register.

5 4. A can closure and spout comprising a sleeve open at its outer end and having a side opening intermediate its length and adjacent one end being formed with a longitudinally
10 extending track, an attaching collar adjacent the other end of the sleeve adapted to engage a neck of a receptacle and mount the sleeve axially of the neck, a tube fitting snugly within the sleeve and slidable longitudinally
15 therein, the tube having a side opening moved into registry with the side opening of the sleeve when the tube is in an extended position with its outer portion projecting from the sleeve to provide a spout, a plug in the
20 inner end portion of said tube having its outer end shaped to define a beveled surface sloping downwardly towards the lower margin of the opening, and a securing pin for said plug extending transversely thereof with one end
25 portion projecting from the tube and received in the track of said sleeve to guide and limit movement of the tube.

In testimony whereof I affix my signature.

RALPH R. ROGERS. [L. s.]

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