

May 11, 1937.

G. LUFKIN

2,080,144

BOTTLE

Filed March 14, 1936

Fig. 1.

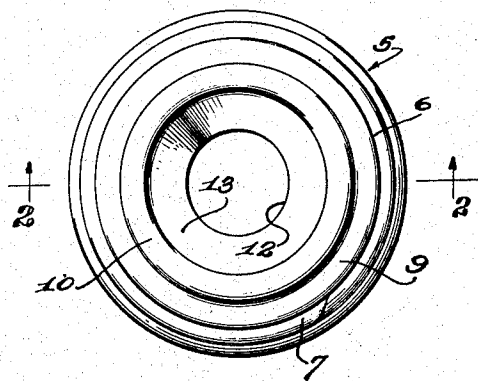


Fig. 2.

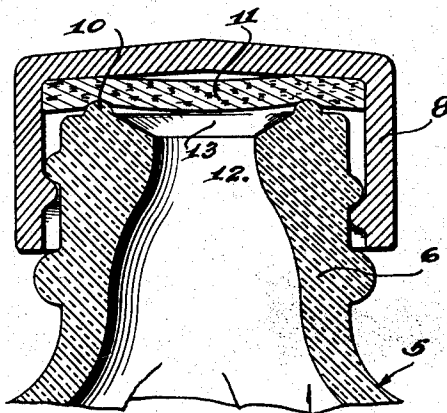
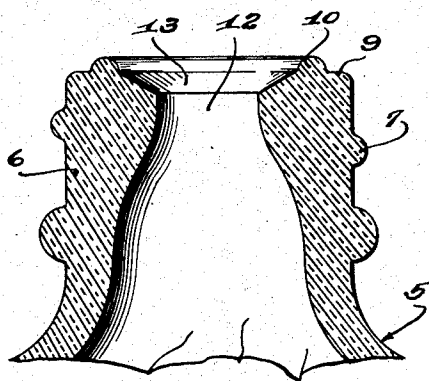


Fig. 3.



Garland Lufkin
INVENTOR.

BY *Rule & Hoge*
ATTORNEYS.

UNITED STATES PATENT OFFICE

2,080,144

BOTTLE

Garland Lufkin, Newark, Ohio, assignor to
Owens-Illinois Glass Company, a corpora-
tion of Ohio

Application March 14, 1936, Serial No. 68,839

1 Claim. (Cl. 215—31)

The present invention relates to improvements in bottles or other containers for liquids and, more particularly, to improved means for preventing drippings from running down the outside surface of the container, especially containers having a restricted discharge orifice commonly known as a "sprinkler top."

An object of the invention is to provide a finish of the character described having a novel sealing surface adapted to prevent leakage of contents containing oil.

Another object is to provide a sprinkler finish for a container which includes novel means for draining back drops of fluid and preventing them from running down the outside of the bottle and in addition acting as a filling aid.

Other objects and advantages will be in part apparent and in part pointed out in the course of the following description, in which:

Fig. 1 is a plan view of my invention;

Fig. 2 is a vertical sectional view taken on line 2—2 of Fig. 1, showing a closure applied to the bottle finish; and

Fig. 3 is a similar view showing the bottle finish with the closure removed.

Referring to the drawing, the numeral 5 designates a bottle or other container having a neck portion 6 on which is formed a screw thread 7 for engagement with a threaded bottle cap 8. The outer or top surface 9 of the neck portion 6 is provided with an annular sealing rib or ring 10 projecting outwardly from said surface 9 and spaced slightly inward from the margin thereof. The ring 10 provides a more reliable seal for products of an oily nature such as hair oil, Brilliantine or the like, than is possible on bottles of this nature now generally in use.

The cap 8 (Fig. 2) represents a molded closure provided with a cork liner 11 although it is to be understood that various other types of caps and liners may well be employed. The placing of the ring 10 near the margin of the finish permits greater pressure to be applied to the cap to force the liner into sealing contact with the ring. Heretofore, breakage of the molded caps has been experienced due to the usual sealing surface being relatively close to the center of the cap, thus placing considerable strain on the closure at its weakest point.

An axially disposed filling and discharging opening 12 is located concentric with and below the ring 10 on the face 9 and provides a restricted orifice through which the contents must be shaken when the bottle is inverted. The surface 13 lying between the ring 10 and the orifice 12

slopes downwardly and inwardly toward the opening 12 for draining back any excess fluid remaining about the top of the bottle after it is restored to its normal upright position. The diameter of the opening 12 is approximately equal to the thickness of the wall in the plane of the opening, thereby permitting a greater area to be included in the surface 13 which constitutes what I term a "drain-back" area. Bottle finishes of this character now in general use make no provision for eliminating the dripping of excess fluid which is allowed to run down over the bottle and present not only a messy appearance but otherwise generally make the bottle inconvenient to handle.

The sloping portion 13 in addition to providing a drain facilitates the filling of the bottles. By placing the sealing ring 10 nearer the periphery of the neck the sloping portion 13 is provided with a maximum of drain surface between the ring and the opening, thereby providing a larger area as a filling guide. When bottles now in use are placed in the filling machine, it is of utmost importance that they align perfectly with the filling tubes. The filling tubes are of necessity made from light weight tubing of small diameter and are readily bent, broken or otherwise damaged should they strike the finish before entering the bottle. The sloping portion 13 serves as a guide for the filling tube, permitting the bottle to shift on its support should it not be properly placed in the machine at the time of filling.

Modifications may be resorted to within the spirit and scope of the appended claim.

I claim:

A sprinkler top bottle having a neck portion provided with a relatively thick annular wall having a cylindrical outer surface provided with an external thread, said neck portion having an annular flat marginal top portion extending inwardly from said cylindrical outer surface, said marginal top portion having a rounded circumferential edge merging with said cylindrical surface, a continuous semi-circular rounded bead projecting upwardly from said flat top portion, said bead being spaced inwardly a slight distance from the periphery of said top portion, said neck portion having a centrally disposed tapering axial filling bore extending therethrough and communicating with the interior of the bottle, said bore having a filling opening at the top thereof positioned below the level of said bead, the top surface of the neck portion between said bead and opening sloping downwardly and inwardly, the

diameter of said opening being substantially equal to the thickness of the bottle neck wall in the plane of the opening, a molded composition cap for said bottle, a yieldable liner disposed in
5 said cap, said cap being provided with an internally threaded skirt designed to engage said external thread, said circular bead being adapted to engage the underneath side of said liner for sealing engagement therewith, said circular bead
10 being of a diameter slightly less than the di-

ameter of the cylindrical outer surface of the bottle neck wall and of a height less than the extent to which said liner may be compressed upon manual application of torque to said cap whereby when excessive torque is applied to said
5 cap said rounded edge will engage the underneath side of said liner in a circular reinforced region in the vicinity of said skirt and prevent breakage of said cap.

GARLAND LUFKIN. 10