July 4, 1939. W. B. LARSON 2,164,613

FLARE

Filed May 3, 1935

Fig. 1.

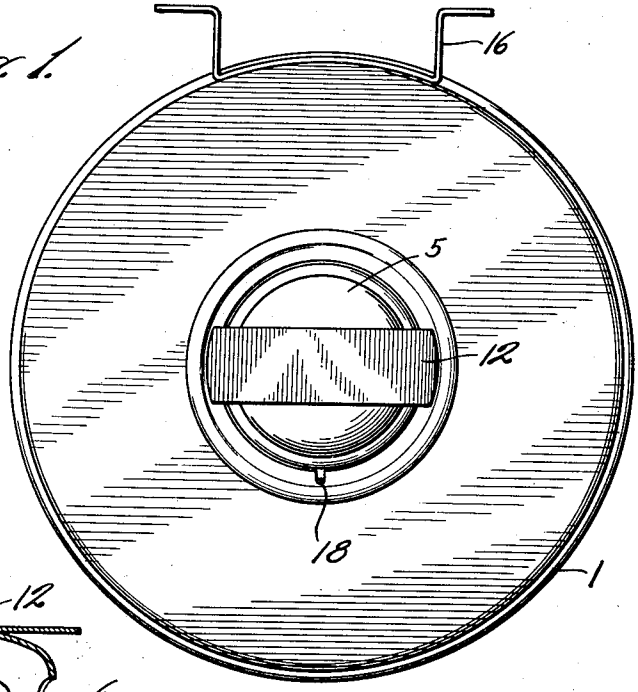


Fig. 2.

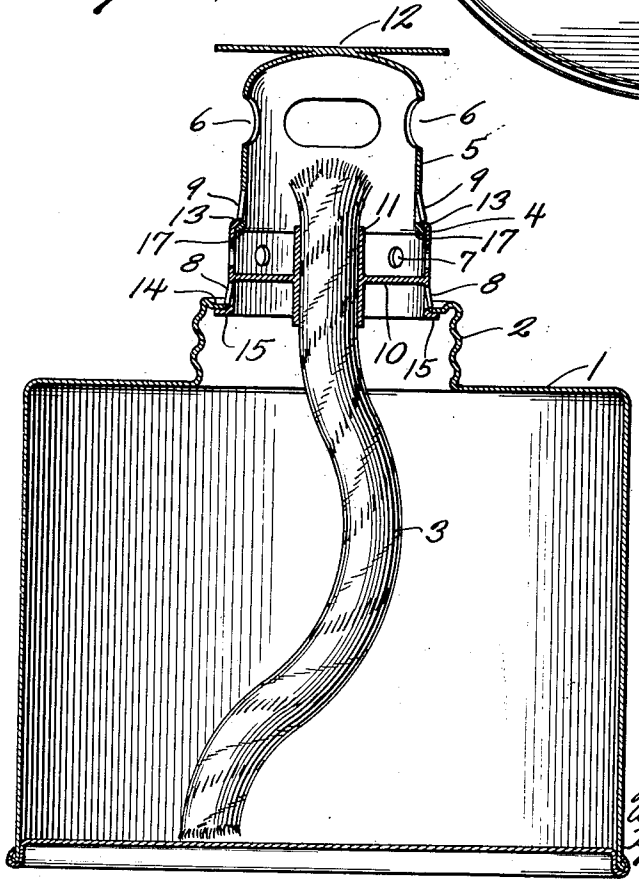


Fig. 3.

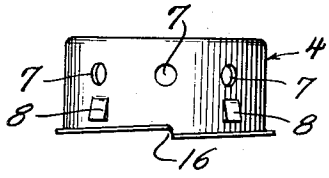
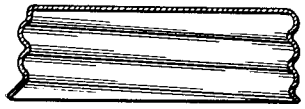


Fig. 4.



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FLARE

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Application May 3, 1935, Serial No. 19,669

1 Claim. (Cl. 67—55)

This invention relates to portable flares or torches of the type which are used as warning signals by truck drivers or automobile drivers when stopped at night on the highway, or such as are used as warning signals in construction work.

In the present state of the art, flares are constructed with a dome, wind break or cap over the wick to shield the flame from wind, rain and snow. The provision of such shield necessitates a protuberance from the body of the flare, and as most trucks carry three such flares, it is difficult to stow them compactly. Even in a flare without such a shield or windbreak, the wick itself protrudes from the top of the reservoir.

I have provided a flare in which the wick, together with the shield or windbreak, can be collapsed into the fuel reservoir and the whole sealed effectively, when not in use, by a screw cap. My invention makes the flare much more compact when not in use, and permits a saving of one-third of the space ordinarily required in stowing such flares.

Other and further objects of my invention will be more specifically set forth in the specification and annexed claim.

In the accompanying drawing:

Fig. 1 is a top view of my type of flare.

Fig. 2 is a sectional view of the flare in its operative position.

Fig. 3 is a side elevation of the lower shell 4 of the flare.

Fig. 4 is a screw cap for the flare.

This invention, as illustrated in Fig. 1, comprises a sheet metal fuel reservoir 1 substantially cylindrical in shape, having a threaded cupola 2 provided at its top with a round opening to receive the burner. The inner edge of the cupola 2 has an annular flange 14 which serves as a stop to restrict the withdrawal of the burner from the fuel reservoir.

The burner consists of two shells, the lower 4 and the upper 5. The lower shell 4 has a flange 15 formed to fit the flange 14 of the cupola 2 on the fuel reservoir. It is provided with a series of buttons 8, sheared from the shell 4, and sprung outward so that when the burner is in operative position, the buttons 8 act in conjunction with the flange 15 of the lower shell 4 to hold the burner in a fixed operative position seated on the flange 14 of the cupola. The lower shell 4 is further provided with a series of relatively small air intakes 7. Substantially in the middle of the lower shell 4 is an annular flange 10 which serves as a support for the wick collar 11. At its top the lower shell 4 has a relatively small inwardly projecting flange 13.

The upper shell 5 has a similar series of buttons 9 which, in operative position, are seated upon the flange 13 of the lower shell. At the same time, the withdrawal of the upper shell from the lower shell is restricted by an outwardly projecting lower flange 17 on the upper shell which, acting in cooperation with the buttons 9, holds the upper shell in operative relationship to the lower shell. The upper shell is further provided with a series of lateral flame ports 6 positioned above the top of the wick 3 when the burner is in operative position.

At the top of the upper shell is a stop 12, being curved at either end to fit the curve of the flange 14 on the cupola, and of a size to restrict the depression of the burner into the reservoir below the flange 14 on the cupola. From the drawing it may readily be perceived that when the burner is not in use it may be collapsed, one shell into the other, within the reservoir, the burner being supported in its collapsed position by the stop 12, and a screw cap may be screwed on the cupola, sealing the reservoir tight. When it is desired to use the burner, it may be withdrawn from the reservoir and snapped into an operative position as shown in Fig. 2. To permit the burner to be serviced, the lower shell of the burner is provided with a bayonet lock 16, Fig. 3, and 18 Fig. 1 permitting disengagement of the burner from the reservoir.

While I have shown only one type of collapsible burner, it is to be understood that this showing is by way of illustration and not of limitation. Numerous changes in the details of construction may be resorted to without departing from the spirit of the invention, especially as defined in the appended claim.

Having fully described my invention, I claim the following:

A flare, comprising a fuel reservoir, an orifice at the top thereof, a relatively cylindrical flame guard having a vertical dimension substantially shorter than said reservoir, said flame guard being provided with means for the emission of flame and the entrance of air, and being movable upward and downward through said orifice, means associated with said flame guard to close said orifice at the upward extent of the movement of said flame guard and to limit said upward movement, means cooperating with said orifice to limit the downward movement of said flame guard said flame guard being spaced above the bottom of the reservoir at the limit of its downward movement, and a wick tube connecting the interior of said flame guard with the interior of said reservoir, relatively smaller in diameter than said flame guard and supported thereon.

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