Oct. 4, 1938. R. KOVAC 2,132,004

FLARE TORCH

Filed Sept. 8, 1934

Fig. 1.

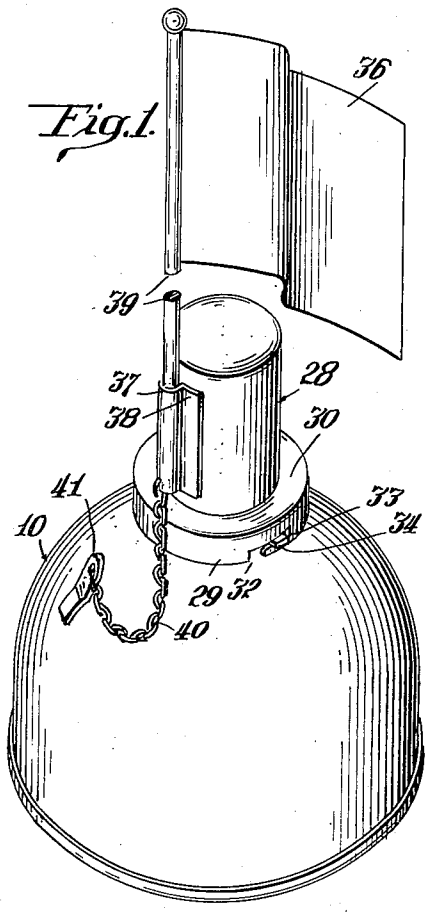


Fig. 2.

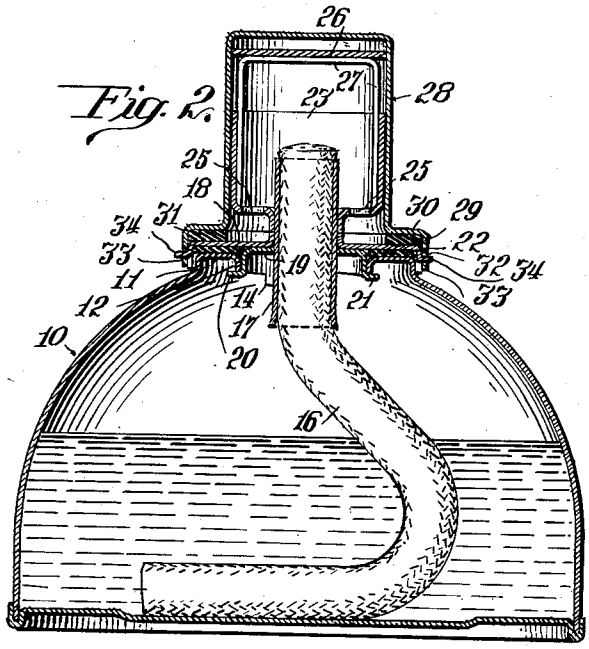


Fig 4.

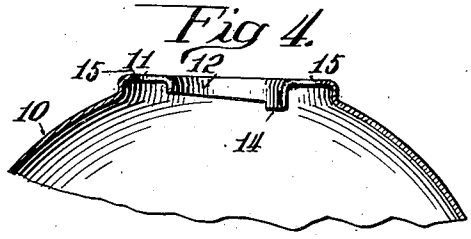


Fig. 3.

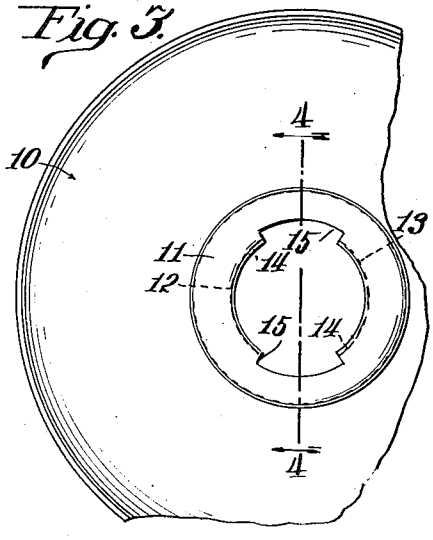


Fig. 5.

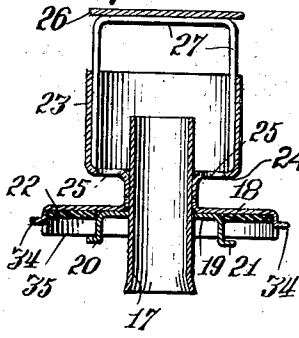
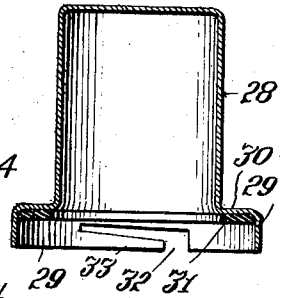


Fig. 6.



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UNITED STATES PATENT OFFICE

2,132,004

FLARE TORCH

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Application September 8, 1934, Serial No. 743,246

2 Claims. (Cl. 67—55)

My invention relates to flare torches and has for its object the provision of a new and improved form and arrangement of parts by which a snuffing effect may be produced, by which a flag staff may be held firmly in upright position above the body of the device for use as a signal when the torch has been snuffed, and by which a tight closure shall be provided about the wick for preventing the escape of the liquid fuel in case the device should be upset during the period when the flare is not lighted.

It is another object of my invention to improve devices of this type in sundry details hereinafter pointed out. The preferred means by which I have accomplished my several objects are illustrated in the drawing and are hereinafter specifically described. That which I believe to be new and desire to cover by Letters Patent is set forth in the claims.

In the drawing,—

Fig. 1 is a perspective view of the preferred form of my improved device with the snuffer in position thereon and with a flag mounted upon the snuffer;

Fig. 2 is a central vertical section through the device as shown in Fig. 1;

Fig. 3 is a top plan view of the receptacle proper with the wick and associated parts removed;

Fig. 4 is a fragmentary view showing a vertical section at line 4—4 of Fig. 3;

Fig. 5 is a central vertical section through the wick supporting means and the shielding means, substantially as shown in Fig. 2 but with the snuffing cap and the receptacle removed for clearness of illustration; and

Fig. 6 is a central vertical section through my improved snuffing cap removed from the remaining parts of the device.

As will be appreciated by those skilled in the art, devices of this general type have been well-known for many years,—see for example the torch shown in Billingham U. S. Patent No. 181,030 of August 15, 1876, and the curling iron device as shown in Pitner Patent No. 536,839 of April 2, 1895.

As shown in the drawing, my device in its preferred form comprises a sheet metal receptacle 10 having an opening at its upper end defined by an inwardly extending flange portion 11 and downwardly directed flange portions 12 and 13 at the inner edge of the flange portion 11, the lower edges of the flanges 12 and 13 being obliquely disposed, as is best shown in Fig. 4, and having lugs 14 formed at their end portions adjacent to notches 15 at opposite sides of the device.

Means is provided upon the upper end of the receptacle for supporting a wick 16 in position, such means in the arrangement shown comprising a wick tube 17 having a plate 18 in the form of a ring extending laterally at an intermediate point. A ring 19 is mounted about the wick tube 17 immediately below the plate 18, such ring 19 having lugs 20 and 21 extending downwardly from the edge of the ring, with the lower end portions of the lugs turned outwardly. The arrangement is such that the lugs 20 and 21 are capable of being entered through the notches 15 so as to bring the outwardly turned end portions of such lugs into engagement with the bottom faces of the downwardly directed flange portions 12 and 13. The arrangement is such that when the plate and tube are given a rotary movement in clockwise direction in Fig. 3 the plate 18 and gasket 22 carried thereby are drawn downwardly into tight engagement with the inwardly extending flange portion 11 of the receptacle 10.

Upon the upper end portion of the wick tube 17, I have mounted a shield 23 in the form of a drum having its lower end partially closed by an inwardly extending flange portion 24 provided with a plurality of air openings 25. Above the shield 23 I have provided a transverse plate 26 supported in position by a metal bow member 27 in spaced relation to the upper edge of the drum 23.

My improved snuffer device as shown in the drawing comprises a cap 28 pressed out of sheet metal into the form of a cup, with an outwardly offset portion 29 at the open end formed integrally with an intermediate outwardly extending flange portion 30. A gasket 31 of any approved type is mounted in the enlarged end portion of the cap in close proximity to the flange portion 30, being held in position in any suitable manner. At opposite side portions, the enlarged portion 29 of the cap is provided with notches 32 which extend longitudinally of the cap and then circumferentially thereof so as to provide lugs or arms 33, the upper faces of which are obliquely disposed. The arrangement is such that when the cap 28 is lowered into position about the upper end of the wick and its associated parts, the notches 32 engage lugs 34 pressed outwardly from a downwardly directed flange 35 on the plate 18. Upon rotation of the cap in clockwise direction in Fig. 3, the lugs 34 by engagement with the upper faces of the lugs or arms 33 draw

the cap downwardly for tightening the gasket 31 between the cap and the plate 18.

Means is provided upon the outer faces of the cap 28 for supporting a signal flag 36 in position. In the arrangement shown, this means comprises a strip of metal 37 bent into the form of a channel with the opposite side portions connected with the cap by means of flanges 38 or otherwise so as to provide an upright socket at the side of the cap for receiving the staff 39 of the flag. In the arrangement shown, a cable 40 in the form of a chain is connected at one end with the lower end portion of the socket member 37 and is connected at its other end with a lug 41 mounted on the outer face of the receptacle 10.

With the parts in the arrangement as shown in Fig. 2, but with the cap 28 removed, a very effective flare device is provided along the lines of the showing of the prior art devices above referred to. An ample supply of air is admitted through the openings 25 for the production of a flame at the upper end of the wick, the flame being adapted to extend outwardly through the opening between the shield 23 and the plate 26 so as to be effective as a signal device. The shield comprising the drum 23 protects the flame from the wind at the critical point adjacent to the wick, and the transverse plate 26 protects the wick effectively from the rain. As will be readily understood when the device is in use as a flare, the cap 28 will be supported by the flexible cable 40 at the side of the receptacle 10. When the workman desires to extinguish the flame, the cap 28 is dropped into position as shown in Fig. 2 serving quickly to snuff the flame and extinguish the fire. The cap can then be tightened into position as shown in Fig. 2 so as effectively to close the upper end of the device about the wick so that in case the device should be upset it will be impossible for any of the fuel to escape. With the cap 28 in position as shown in Figs. 1 and 2, a flag 36 can be readily inserted in position, the receptacle 10 more or less completely filled with fuel serving as an effective standard for supporting the flag in position.

While I prefer to employ the form of construction as shown in my drawing and as above described, it is to be understood that my invention is not limited to the form shown except so far as the claims may be so limited by the prior art.

I claim:—

1. In a device of the type described, the combination of a receptacle for liquid fuel having an opening at its top provided with an inwardly directed flange, a downwardly directed flange on said inwardly directed flange at each side of the receptacle having an obliquely disposed lower edge, a wick tube, a plate mounted on said tube and extending outwardly therefrom, lugs extending outwardly from said plate in spaced relation thereabout, a cap having notches in its lower edge comprising obliquely disposed bearing face portions adapted by engagement with said lugs to lock said cap securely in position on said plate when the cap is given a rotary movement, a gasket interposed between said cap and said plate for providing a tight closure therebetween, a second gasket on the bottom face of said plate in position to engage said inwardly directed flange of the receptacle, and other lugs extending outwardly from said tube in downwardly spaced relation to said plate adapted by engagement with said downwardly directed flanges of the receptacle to lock said plate in closure position upon said opening.

2. In a device of the type described, the combination of a receptacle for liquid fuel having an opening at its top provided with an inwardly directed flange, a downwardly directed flange on said inwardly directed flange at each side of the receptacle having an obliquely disposed lower edge, a wick tube, a plate mounted on said tube and extending outwardly therefrom, lugs extending outwardly from said plate in spaced relation thereabout, a cap having notches in its lower edge comprising obliquely disposed bearing face portions adapted by engagement with said lugs to lock said cap securely in position on said plate when the cap is given a rotary movement, a gasket interposed between said cap and said plate for providing a tight closure therebetween, a second gasket on the bottom face of said plate in position to engage said inwardly directed flange of the receptacle, other lugs extending outwardly from said tube in downwardly spaced relation to said plate adapted by engagement with said downwardly directed flanges of the receptacle to lock said plate in closure position upon said opening, a shield carried by said tube above said plate in the form of a drum in outwardly spaced relation to the tube, an opening being provided at the lower end of the drum for admitting air between the wall of the drum and the tube, and a plate supported in spaced relation above the drum transversely of the drum, said drum and plate being of a size to enter said cap.

RUDOLPH KOVAC.