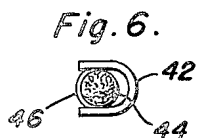
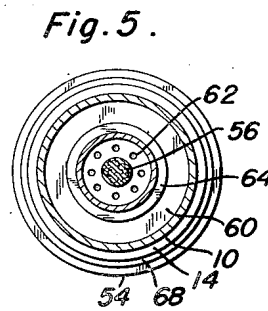
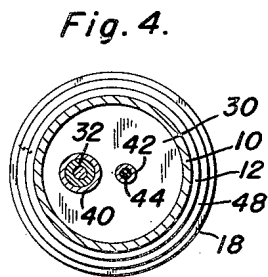
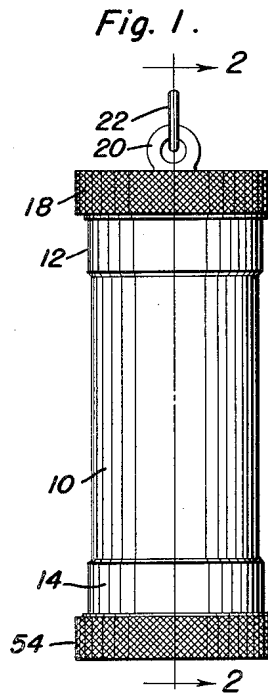
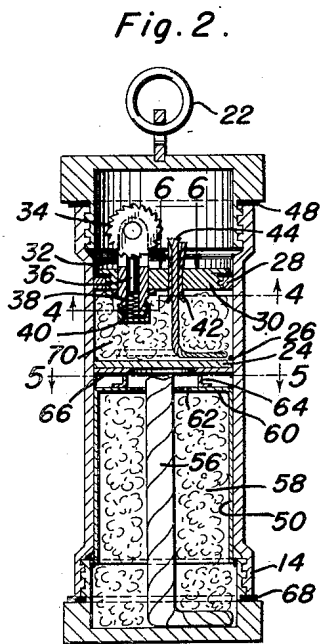
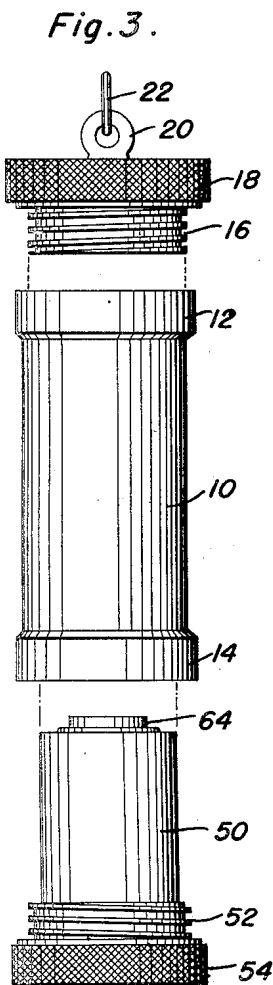


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M. C. LOHR  
EMERGENCY FIRE MAKER

2,527,100

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# UNITED STATES PATENT OFFICE

2,527,100

## EMERGENCY FIRE MAKER

Melvin C. Lohr, Erie, Pa.

Application November 4, 1947, Serial No. 783,900

2 Claims. (Cl. 67-4.1)

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This invention relates generally to lighters, more particularly to an emergency torch assembly which comprises a casing divided into two chambers by a partition with a flint wheel lighter mechanism mounted in one end of the casing and a receptacle containing inflammable substance in the other end of the casing.

A primary object of this invention is to provide an emergency torch which may be used by hunters or others who find themselves without dry matches, the device being self lighting and containing a sufficient quantity of fuel to satisfactorily ignite other fuel found by the person stranded.

Another salient object of this invention is to provide means of this character which is provided with satisfactory means to prevent evaporation of the liquid fuel contained therein, even though the device be not used over long periods of time, the device being, therefore, a reliable emergency lighter.

Still another object of this invention is to provide a device which may be used several times, as when it is found necessary to reignite a camp fire.

Another object of this invention is to provide a device of this character which is very easy to refill after the fuel contained therein is exhausted.

And a last object to be specifically mentioned is to provide a device of this character which is relatively inexpensive and practicable to manufacture, which is extremely simple and convenient to use, and which will give generally efficient and durable service.

With these objects definitely in view, together with other objects which will appear as this description proceeds, this invention resides in certain novel features of construction, combination and arrangement of parts and portions as will be hereinafter described in detail in the specification, particularly pointed out in the appended claims, and illustrated in the accompanying drawings which form a material part of this application, and in which:

Figure 1 is an elevational view of the assembled torch;

Figure 2 is a vertical cross sectional view, taken on the line 2-2 in Figure 1;

Figure 3 is an exploded or grouped view, elevational in character, of the main cylindrical portion of the torch, the top closure cap and the fuel receptacle;

Figure 4 is a horizontal transverse sectional view, taken on the line 4-4 in Figure 2, and in the direction of the arrows;

Figure 5 is a similar view taken on the line

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5-5 in Figure 2, and in the direction of the arrows; and

Figure 6 is an enlarged detailed horizontal sectional view, taken on the line 6-6 in Figure 2.

Similar characters of reference designate similar or identical parts and portions throughout the specification and throughout the drawing.

Referring now to the drawing in detail, the torch includes a cylinder 10 having enlarged ends 12 and 14 which are internally threaded. The threaded end 12 is adapted to receive the closure cap 16 which may be provided with a knurled annulus 18, together with a terret 20 and a ring 22, the terret 20 being integral with the cap.

The cylinder 10 is divided into two chambers by a partition 24 which will ordinarily be soldered in place, as indicated at 26. What will hereinafter be referred to as the first chamber is provided near the outer end thereof with an internally threaded annulus or internal flange 28. The plate 30 is provided with external threads to engage the internal flange 28 and this plate carries a cylinder 32 which is bifurcated at the upper end to receive a flint wheel 34, and which is axially bored to receive a flint 36 and a spring 38, while the lower end of the cylinder is provided with a spring tensioning adjusting nut 40, this sub assembly being constructed according to substantially standard practice. The plate 30 is also apertured to receive a wick support 42 and a wick 44 extends through the wick support into the said first chamber, the upper end of the wick support 42 and the wick 44 being, of course, disposed adjacent the flint wheel 34. The wick support 42 is preferably cut away on the side thereof adjacent the said flint wheel 34, as indicated by the portion 46 in Figure 6 which is shown in plan, this construction allowing a greater surface of wick to be exposed on the side of the wick adjacent the flint wheel. A gasket 48 is provided between the upper end of the cylinder 10 and the cap 16.

The other end of the cylinder 10 is occupied by a receptacle 50 which is provided with a threaded portion 52 adapted to engage the internally threaded end 14 of the cylinder. The outer end of this receptacle is preferably knurled as at 54 to facilitate the threading of the receptacle into the end of the cylinder. The inner end of the receptacle is centrally apertured to receive a wick 56 which extends above the inner end of the receptacle and into the absorbent material 58 which is used to fill the receptacle. The top plate 59 of the receptacle is apertured as at 62 adjacent to the wick 56, and these apertures 62 together

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with an annular flange 64 which acts as a funnel, allow the filling of the receptacle with liquid fuel such as kerosene. The annular flange 64 besides acting as a funnel, functions as an abutment or sealing member coacting with the gasket 66 to effectively seal the inner end of the receptacle against the partition 24. Another seal, comprising a gasket 68 is provided at the outer end of the cylinder, that is, this gasket 68 is clamped between the outer end of the portion 14 of the cylinder and the inner face of the narrowed portion 54 of the receptacle. This double seal safely insures against evaporation of the fuel contained in the receptacle and the device is absolutely watertight.

The operation of the invention will be clearly understood from the foregoing description of the mechanical details thereof, taken in connection with the above recitation of the objects sought to be achieved by this invention. In recapitulation, when it is desired to use the device, the cap 16 is removed exposing the flint wheel 34 which may be turned in a manner well understood to light the wick 44. This wick 44 is surrounded with absorbent material 70 impregnated with highly volatile liquid such as gasoline or other lighter fluids. The receptacle 50 is unscrewed from the other end of the cylinder 10 and the lighted wick 44 is used to ignite the wick 56, which latter wick is used as the torch for igniting the camp fire, when the device is used in what is considered will be the major field of operation for this invention. Obviously, when the fuel in the first chamber associated with the lighter mechanism is not exhausted the wick may be ignited over and over again. Similarly the wick 56 may be used several times until the fuel in the receptacle 50 is exhausted. When the fuel is exhausted, it may be replenished and the device re-sealed and retained against an emergency requiring the re-use of the torch.

It is believed the foregoing description, taken in connection with the drawing, adequately discloses how this invention may be reduced to practice, and further description is therefore deemed unnecessary.

Many minor variations may be made in the exact details of construction and the proportionment of the various elements, and this invention is to be limited only by a proper interpretation of the appended claims.

Having described the invention, what is claimed as new is:

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1. An emergency torch assembly comprising a hollow cylindrical casing divided transversely into two chambers by an imperforate partition, a flint wheel lighter mechanism mounted in one end of the casing and including a wick extending into the first chamber, and a receptacle for an inflammable substance removably securable in said second chamber, said receptacle having threaded connection with the ends of said cylinder and said receptacle having an inner end wall with a plurality of openings therein, a wick extending through one of said openings, and a funnel surrounding said wick and in sealed connection with said partition.

2. An emergency torch assembly comprising a hollow cylindrical casing divided transversely into two chambers by an imperforate partition, a flint wheel lighter mechanism mounted in one end of the casing, a receptacle for an inflammable substance removably securable in the second chamber, said receptacle having threaded connection with the ends of said cylinder, said receptacle having an inner end wall with a central opening therein, a wick extending through said opening, an annular flange on said inner end comprising a funnel communicating with said opening, said flange abutting said partition to seal the receptacle and wick when the receptacle is screwed into the casing, and a plurality of openings in said inner end wall between said central opening and said flange.

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