

July 29, 1952

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2,604,922

LIGHTER FOR POT-TYPE OIL BURNERS

Filed April 17, 1950

Fig. 1

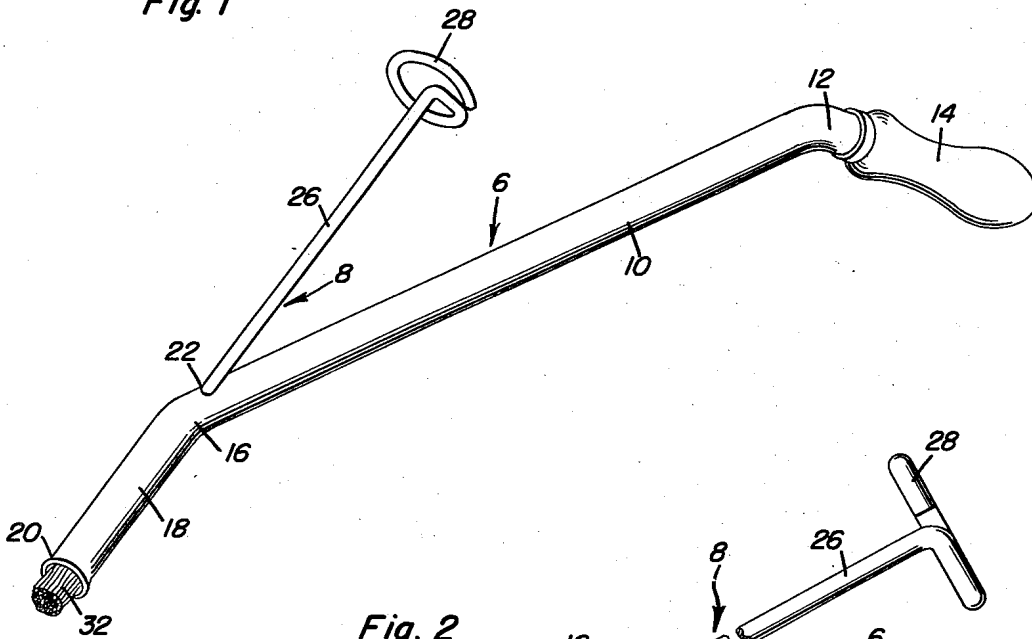


Fig. 2

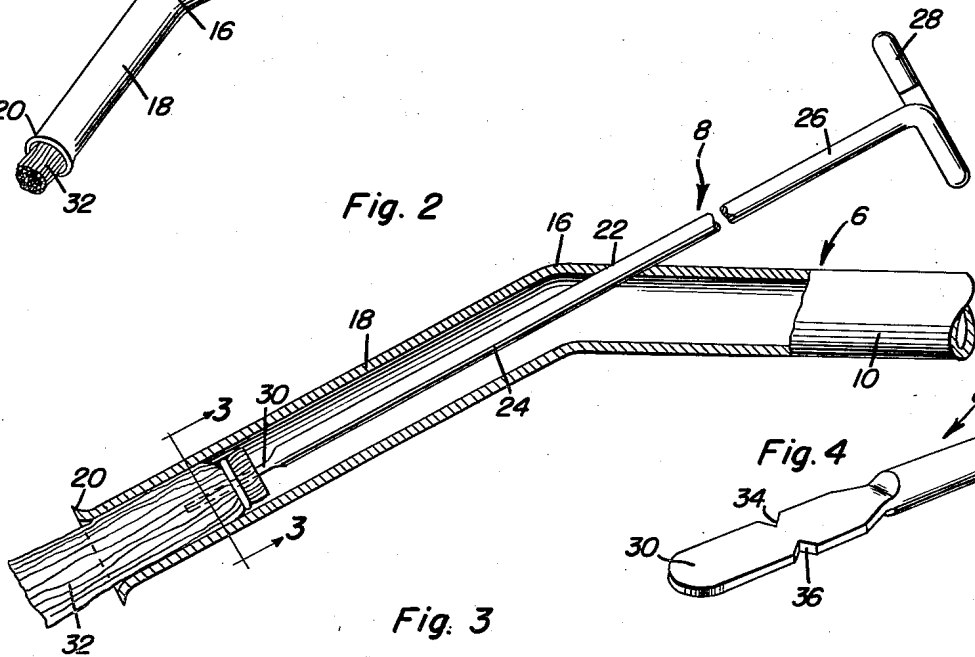


Fig. 4

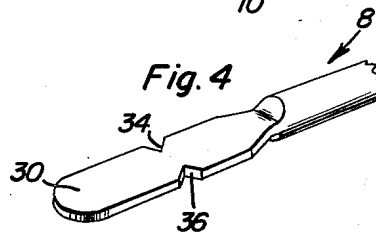
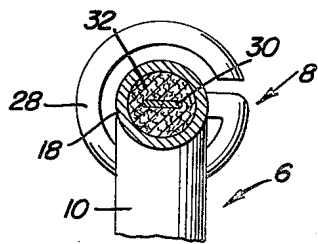


Fig. 3



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# UNITED STATES PATENT OFFICE

2,604,922

## LIGHTER FOR POT-TYPE OIL BURNERS

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Application April 17, 1950, Serial No. 156,395

4 Claims. (Cl. 153-10)

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This invention relates to safety-type torches and lighters such as utilize extensible and withdrawable wicks, plunger means for operating the same and snuffing means for extinguishing the flame from the wick when the latter is withdrawn into its snuffing means. More particularly, however, the invention has to do with an oil igniting or lighting torch with suitable reach facilities, whereby the instrumentality may be used with requisite efficiency and safety in applying a starting flame to oil in so-called pot-type oil burners.

There are, of course, many forms of pot-type oil burners in use. One popular type is the well known Holland gravity-feed oil burner. This embodies an oil trapping and burning pot at the bottom of the combustion chamber, the oil pilot and oil in the pot being accessible by way of a circular front door in the casing. In lighting burners of this type reasonable care and precaution must necessarily be exercised to minimize accidentally starting a residential fire. All sorts of make-shift devices are used and some employ a wad of waste material and others utilize folded newspapers, and tissues and the like.

There has long existed a need for simple, practical and suitable igniter or lighter which, while primarily adapted for use by the owner of the burner is equally well adapted for use by service men.

Another object of the invention is to provide a burner lighter in which manufacturers, retailers and users will find their essential needs fully met, contained and satisfactorily available.

A further object is to, obviously, keep the burner parts effectively clean by doing away with ashes from matches and paper so often used in lighting such burners.

Then, too, novelty is predicated on a pot lighter which has a readily operable and removable wick on a simple plunger rod and which wick serves to retain the oil charge for a considerable length of time permitting the wick to be used over and over without refueling.

Furthermore, novelty is predicated on a lighter which is safe in that the plunger may be controlled when the wick-end is within the confines of the pot and which is such that the flame can be extinguished immediately after the burner is lit.

Other objects and advantages will become more readily apparent from the following description and the accompanying illustrative drawings.

In the accompanying sheet of drawings, wherein like numerals are employed to designate like parts throughout the views:

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Figure 1 is a perspective view of a pot-type burner lighter or torch constructed in accordance with the principles of the present invention;

Figure 2 is a view partly in section and partly in elevation, on an enlarged scale, which serves to bring out the details and their construction and associated arrangement;

Figure 3 is a cross section on the line 3-3 of Figure 2, looking in the direction of the arrows; and,

Figure 4 is a fragmentary perspective view, also on a large scale, which shows the specific construction of the wick-head on the plunger rod.

Referring now to the drawings by reference numerals and accompanying lead lines it will be seen that the over-all instrumentality is characterized primarily by a handle unit 6 on the one hand and a plunger unit 8 on the other hand.

The major central portion of the handle unit is a hollow tube which is linearly straight from end to end as at 10. At one end the tube is provided with a short lateral bend 12 carrying an appropriate hand grip 14. It is to be noted that the hand grip is permanently attached to the tube and effects a closure for the adjacent end of the tube. The opposite or working end of the tube is laterally bent at 16 on an approximate obtuse angle to define a wick housing and snuffing cylinder 18. The extreme outer end of the cylinder is of flared or bell-like form as shown at 20. Just to the right of the bend 16 the body portion of the handle is provided with an oblique guide opening 22 in approximate axial alignment with the longitudinal axis of the cylinder 18 as shown in Figure 2. The cylinder and hole therefore provide an ideal mount for the relatively short plunger unit 8. The latter unit comprises a linearly straight and rigid plunger rod 24 which has its normally projecting and exposed end portion 26 formed with a push-pull ring 28. The opposite end portion of the rod is flattened as at 30 to provide a blade-like accommodation head for the asbestos ignition wick 32. The strands which go to make up the wick are located about the head 30 in the orderly fashion shown and are tied or otherwise anchored in keeper notches 34 and 36 provided in said head.

It is to be noted that the plunger rod 24 is of a length considerably less than the overall length of the tube, that the ring is of a diameter greater than the plunger rod and is at right angles to the axis of the rod and that the end portion 12 projects well beyond the ring, whereby to function as a reach member.

In use the user has to swing the usual circular or discoidal spring closed door (not shown) open and hold it open by hand or otherwise. Prior thereto, however, the plunger rod may be projected slightly to cause a small end portion of the wick to protrude so that it may be ignited with a match. When the wick is partly projected and lit the peculiar shape of the body portion 10 and hand grip 12 permit the user to reach nicely through the door down into the pot to apply the flame to the oil in the pot. By using the push-pull ring 28 as a sort of an abutment and by placing it against the innerside of the door frame, say close to the surrounding perimeter of the door opening and then pulling outwardly on the hand grip 14, the plunger serves to project the lighted wick to the position desired for efficient and safe results. The same push-pull ring 28 may be placed against the exterior side of the rim around the door opening (not shown) and the handle may be utilized to force or press the plunger and wick back to a retracted position where the wick will be extinguished, in an obvious fashion.

A careful consideration of the foregoing description in conjunction with the invention as illustrated in the drawings will enable the reader to obtain a clear understanding and impression of the alleged features of merit and novelty sufficient to clarify the construction of the invention as hereinafter claimed.

Minor changes in shape, size, materials and rearrangement of parts may be resorted to in actual practice so long as no departure is made from the invention as claimed.

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

1. A lighter for a pot-type oil burner comprising a tube provided at one end with a hand grip and at the opposite end with a cylinder, said cylinder being laterally offset with its longitudinal axis being at an obtuse angle relative to the longitudinal axis of the tube, said tube having a plunger rod guide opening adjacent to said cylinder, a plunger rod mounted for reciprocation on said tube, one end portion of said plunger rod being passed through said guide opening and extending into said cylinder, a wick mounted on said end portion of said plunger rod, the opposite end portion of said plunger rod projecting outwardly beyond said tube at the point of con-

tact with the latter and being accessibly exposed and assuming a position at an acute angle relative to the tube, said plunger rod having an actuator ring on said last recited end whereby said plunger rod may be selectively manipulated.

2. The structure specified in claim 1, wherein the free end of said cylinder is of a greater diameter than the remaining portion of the cylinder and the diameter of the wick, whereby the wick may be readily extended and retracted.

3. A lighter for a pot-type oil burner comprising a tube imperforate at one end portion, a hand grip permanently attached to and closing the end at said one end portion, the opposite end portion of said tube having a cylinder, said cylinder being laterally offset with its longitudinal axis being at an obtuse angle relative to the longitudinal axis of said tube, said tube adjacent the junctural connection with said cylinder having an oblique plunger rod guide opening, a rigid plunger rod linearly straight from end to end slidably mounted in said guide opening, one end portion of said plunger rod extending axially into said cylinder, a wick mounted on said one end portion and operable in said cylinder, the opposite end portion of said plunger rod extending outwardly and clear of said tube, and assuming a position in acute angular relationship in respect to said tube and terminating in a push-pull ring, said ring being of a diameter appreciably greater than the diameter of said plunger rod and being at right angles to the axis of said plunger rod.

4. The structure specified in claim 3, said plunger rod being of a length considerably less than the overall length of said tube, the first named end portion of said tube extending well beyond said ring thus permitting the tube to serve as a reach member.

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