Sept. 7, 1948. F. R. RIZER 2,448,622

LIGHTING TORCH

Filed March 4, 1947

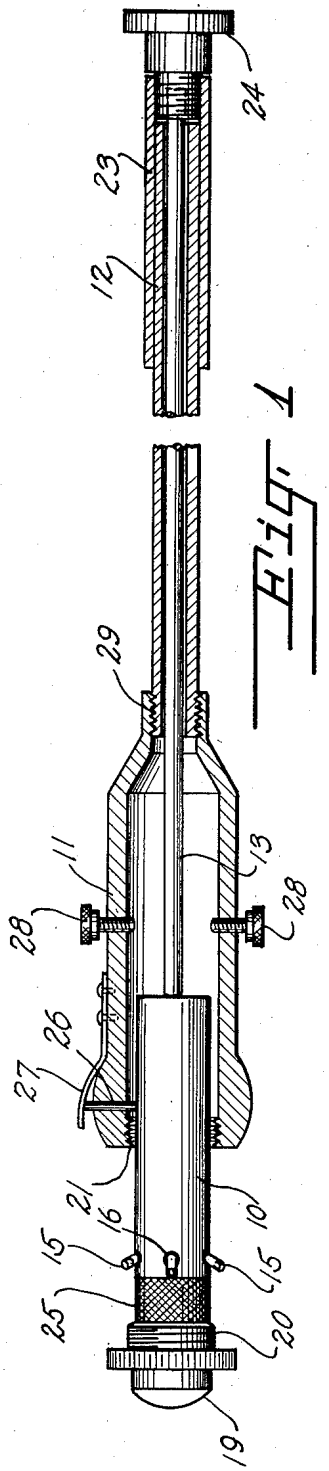

Fig. 1

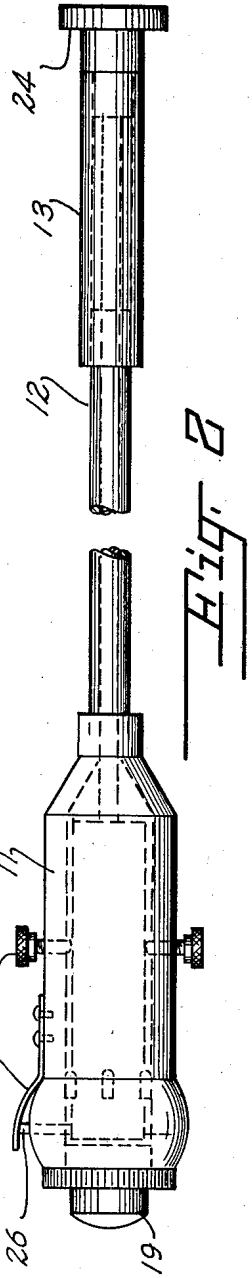

Fig. 2

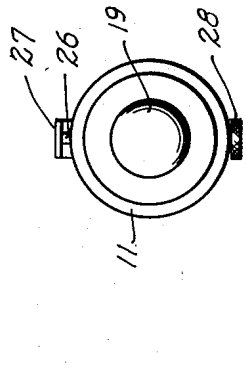

Fig. 4

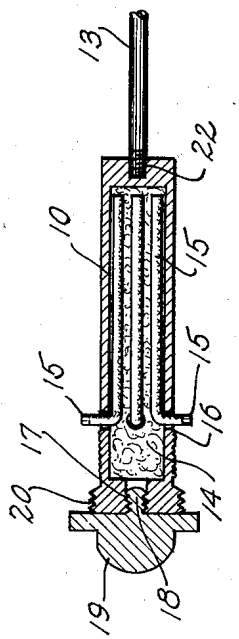

Fig. 3

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LIGHTING TORCH

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1 Claim. (Cl. 67—6.1)

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This invention relates to lighters of the type having wicks extending from lighting fluid chambers wherein the lighting elements are provided at the end of an extending handle forming a torch used primarily for lighting oil burners and the like, and in particular, a lighter having a fluid chamber with wicks extending therefrom slidable in a surrounding jacket with sparking elements for lighting the wick as the chamber is ejected by an operating rod extending through an extended handle thereof.

The purpose of this invention is to provide a lighter for oil burners and the like wherein the lighter may be inserted through a door of a furnace or the like and actuated from the exterior to provide a sufficient flame to ignite the oil fumes of the burner.

Various types of torches and lighters with extended handles have been provided for lighting oil burners, gas furnaces and fires from remote points, but these devices are lighted by a match and carried with the flame at the end to the furnace, fire, or the like, and particularly around oil and gas burners there are present gaseous fumes that may be ignited before the lighter reaches the burner, and lighters of this type are, therefore, dangerous. Lighters of this type always require at least slight heating before the fumes ignite, and sometimes many matches are required to light the lighter or torch. The discarded matches are generally dropped upon the floor, and as oil is sometimes present on the floor around oil burners, this is also dangerous. With these thoughts in mind, this invention contemplates a compact, unique lighter with an extended handle wherein the flame is not produced until the tip of the lighter is in position associated with the burner or other device.

The object of this invention, therefore, is to provide a lighting torch in which the lighting elements are normally concealed and only open for lighting when the end of the torch is in the position where lighting is desired.

Another object of the invention is to provide a lighting torch that may readily be held in one hand so that it may be extended through a furnace door or the like and readily actuated to lighting position by the other hand with the end thereof in the furnace or the like.

Another object of the invention is to provide a lighting torch having a wick and lighting fluid chamber in a surrounding jacket in which the chamber and wick may be ejected from the end of an extending handle and in which the wick ignites as the elements are ejected.

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A further object of the invention is to provide a lighting torch that may be actuated for lighting while held through a furnace door or the like and may be extinguished in the same position, which is of a simple and economical construction.

With these and other objects in view, the invention includes a lighting fluid chamber in the form of a capsule with wicks extending at the ends thereof, a surrounding jacket in which the chamber may be enclosed, sparking elements associated with the outer ends of the jacket through which the chamber passes, an extended handle on which the jacket is mounted and an actuating rod connected to the chamber and extending through the handle.

Other features and advantages of the invention will appear from the following description taken in connection with the drawings, wherein:

Figure 1 is a view showing a longitudinal section through the jacket and handle of the lighter with the wick and lighting fluid chamber and operating rod thereof shown in elevation and in which parts of the handle and rod are broken away, and the wick and fluid chamber are shown in the ejected position.

Figure 2 is a view showing a side elevation of the lighting torch with the parts assembled and in the enclosed position and with parts of the handle and operating rod broken away.

Figure 3 is a longitudinal section through the lighting fluid chamber with the operating rod thereof extending from one end and with the outer end of the rod broken away.

Figure 4 is a view showing an end elevation of the lighting torch looking toward the fluid chamber end of the device.

Referring now to the drawings, wherein like reference characters designate corresponding parts, the lighting torch of this invention includes a fluid chamber 10, a surrounding jacket 11, a handle 12 and a fluid chamber and wick-operating rod 13.

The lighting fluid container 10 is made in the form of a capsule with a relatively open interior that may be filled with cotton 14, or the like, and the interior may also be provided with wick elements 15, the ends of which extend through openings 16 in the wall of the chamber. The outer end of the chamber is provided with a threaded filling opening 17 into which a plug 18 on a cap 19 extends, as shown in Figure 3. The outer end of the chamber 10 is provided with threads 20 by which the chamber may be screwed into the jacket, the threads being screwed into threads 21 in the end of the jacket. The inner

end of the chamber 10 is provided with a threaded socket 22 into which the inner end of the operating rod 13 is threaded and on the outer end of the rod 13 is a sleeve 23 extending from a knob 24 by which the chamber 10 may be actuated by the rod, wherein the chamber may be screwed into or unscrewed from the outer end of the jacket 11 and also may be ejected outward or drawn inward. The sleeve 23 is slidable on the outer surface of the handle 12 preventing pinching the fingers between the knob 24 and end of the handle.

The outer surface of the chamber 10 adjacent the threaded portion 20 is provided with knurling 25 which engages a flint element 26 that is held in contact therewith by a spring 27 positioned on the outer surface of the jacket 11 wherein, as the chamber 10 is rotated or slid outward, sparks will be produced to ignite the extending ends of the wick 15. The chamber 10 is held centered in the jacket by thumb screws 28 that are threaded through the wall of the jacket.

The inner end of the jacket is threaded on the extending sleeve 12 which forms a handle, as shown at the point 29, and the rod 13 extends through the handle, as shown, with the knob 24 positioned at the outer end.

With the parts arranged in this manner, the lighting torch may be held through the fire door of a furnace with the inner end positioned adjacent the burner, or the end of an oil burner gun or the like, and with the handle held in one hand, the chamber 10 may be rotated by the knob to free the end thereof from the threads 21 of the jacket and then the chamber may be moved outward or ejected from the end of the jacket by forcing the rod inward. This action will cause the abrading element and flint to provide sparks which will ignite the extending ends of the wicks 15 providing sufficient flame to ignite the burner or oil fumes to start the fire or furnace.

Before removing the lighting torch from the furnace, the fluid chamber may be drawn back into the jacket by the knob at the end of the rod, wherein the flame will be smothered and the lighter extinguished.

The lighting torch of this invention is shown

in the preferred design, although it will be understood that modifications may be made in the design or arrangement of the parts without departing from the spirit of the invention.

What is claimed is:

A lighting torch for oil burners and the like, comprising a tubular jacket having a bore provided with screw threads near its outer end, a long tubular handle secured to the inner end of the jacket and extending axially thereof for a substantial distance, a cylindrical lighting fluid container slidably disposed within the bore and shiftable axially to exposed and covered positions, the container being externally screw threaded near its outer end for engagement with the screw threads of the bore and provided with an externally roughened striking surface inwardly of the external screw threads, the container having a filling opening in its outer end and angularly spaced radial apertures adjacent to the inner end of the striking surface, wicks arranged in the container and extending through the radial apertures, a cap for the filling opening, a spring loaded flint element carried by the sleeve near its outer end and projecting into the bore to resiliently engage the striking surface, a long rod secured to the inner end of the container and extending slidably through the tubular handle, and a knob carried by the free end of the rod for shifting the rod and container axially, the knob engaging the end of the end of the handle to limit the forward shifting of the container.

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