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SELF-EXTINGUISHING FIRE LIGHTER

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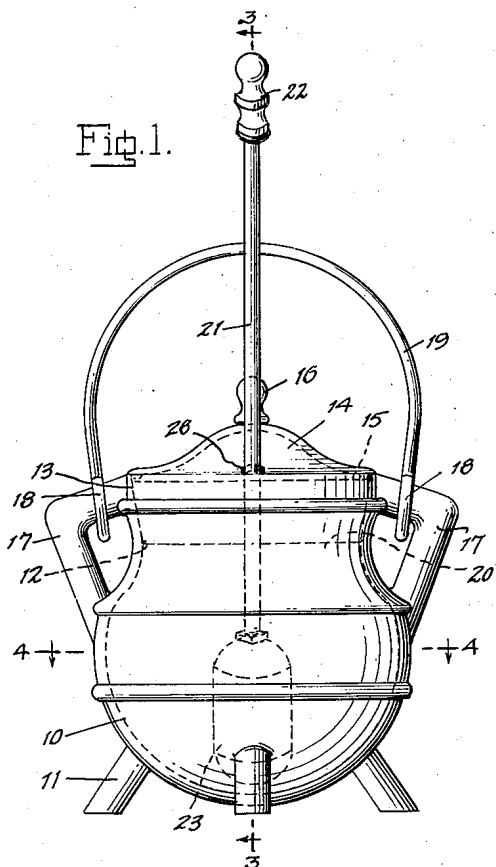


Fig. 1.

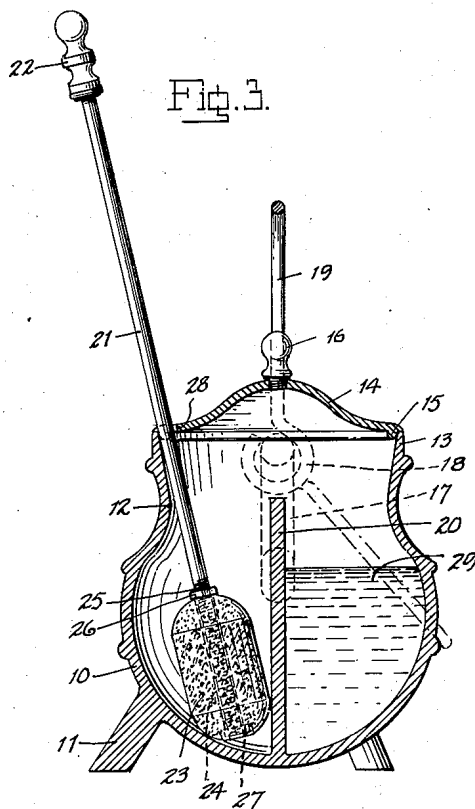


Fig. 3.

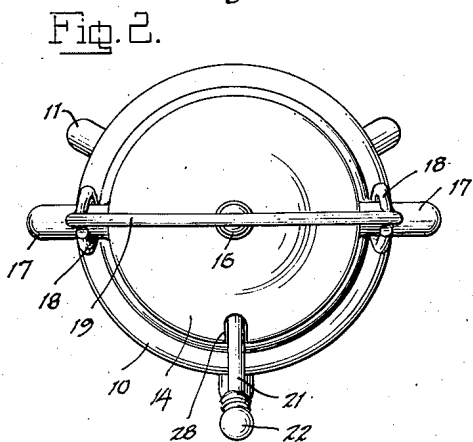


Fig. 2.

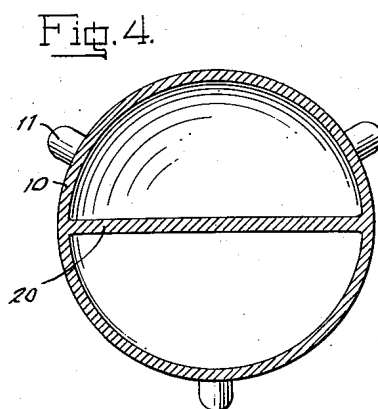


Fig. 4.

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SELF-EXTINGUISHING FIRE LIGHTER

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5 Claims. (Cl. 158—10)

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The present invention relates to a self-extinguishing fire lighter, particularly of the type comprising a pot for containing igniting fluid, such as oil, and a torch having an igniting head formed of suitable absorbent refractory material, such as baked clay. With the usual fire lighter of this type there is no provision for extinguishing the torch, with the result that it is usually blown out or smothered outside of the pot, which is not only a dangerous procedure, but allows the smoke and odor resulting from extinguishing the torch to escape into the room. A further objectionable feature of the usual fire lighter of this type is that no provision is made for storing the torch when not in use, except in the igniting fluid within the pot. This not only saturates the absorbent torch head to an undesirable extent, but leads to its rapid deterioration.

It is an object of the present invention to provide a self-extinguishing fire lighter whereby the torch may be quickly extinguished within the closed pot, without contact with the igniting fluid therein, and without allowing the escape of smoke or odors to the room. To this end it is proposed to provide a fire lighter having a pot provided with a partition wall dividing it into two compartments, one constituting an igniting fluid reservoir and the other a storage space for the torch when not in use and a flame extinguishing enclosure, which in cooperation with the cover of the pot provides a confined space wherein the oxygen will be quickly exhausted, thereby causing the flame to be extinguished in a matter of seconds. It is further proposed to provide a partition wall so arranged that it will provide a barrier to effectually prevent the flame of the torch head from reaching the igniting fluid. It is also proposed to provide a partition wall arranged to cooperate with the wall of the pot to provide contracted entrances to both the fluid reservoir compartment and the storage and flame extinguishing compartment, in the one case preventing spilling of the fluid when the pot is being carried about and also reducing the exposed area of the fluid so as to minimize evaporation, and in the other case aiding in the extinguishing action as the ignited torch head is engaged therein.

With the above and other objects in view, an embodiment of the invention is shown in the accompanying drawings, and this embodiment will be hereinafter more fully described with reference thereto, and the invention will be finally pointed out in the claims.

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In the drawings:

Fig. 1 is a front elevation of a self-extinguishing fire lighter, according to the illustrated exemplary embodiment of the invention.

Fig. 2 is a top plan view.

Fig. 3 is a vertical sectional view, taken along the line 3—3 of Fig. 1.

Fig. 4 is a horizontal sectional view, taken along the line 4—4 of Fig. 1, the igniting fluid and torch being removed.

Similar reference characters indicate corresponding parts throughout the several figures of the drawings.

Referring to the drawings, the self-extinguishing fire lighter, according to the illustrated exemplary embodiment of the invention, comprises a pot 10 formed of cast iron or other suitable material and provided with supporting legs 11, the pot being preferably shaped so that it is bulged outwardly at its intermediate portion to provide a contracted upper neck portion 12. At the upper open side of the pot there is provided a circular upstanding rim 13, upon which the cover 14 seats, the cover having on its underside a positioning rib 15 fitted within the rim 13. A handle 16 is secured to the cover. At opposite sides of the pot there are provided loop handles 17—17, loosely engaged by the ring ends 18—18 of the carrying bale 19, which normally swings down so that it rests at the side of the pot at one side, as shown by the dot-and-dash lines in Fig. 3.

A vertically disposed partition wall 20 is provided within the pot, being integrally formed, as by casting, with the interior surface of the pot. This wall is centrally disposed so that it divides the pot into two compartments of identical form, so that either one of the compartments constitutes a reservoir for the igniting fluid, while the other compartment constitutes storage and extinguishing space for the torch head, the integral connection of the partition wall with the wall of the pot preventing any possibility of leakage of the fluid from one compartment into the other. The upper edge of the partition wall is preferably straight and is disposed in a plane substantially in line with the contracted neck portion 12 of the pot, so that it forms with this contracted neck portion a restricted entrance to both compartments. The upper edge of the wall is spaced downwardly from the edge of the rim 13, so as to facilitate engagement and removal of the torch with respect to either compartment.

The torch comprises a metal rod 21 having at its upper end a handle 22, and having at its

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lower end a head 23 formed of suitable porous absorbent refractory material, such as baked clay. The head is removably engaged upon the rod 21, and for this purpose is provided with a central passage 24 through which the lower threaded end 25 of the rod is engaged, the head being secured in place by upper and lower nuts 26 and 27 screwed upon the rod.

The cover 14 is provided with a notch 28 at its edge for receiving the rod 21 of the torch with the shaft resting against the rim 13.

In operation the torch is normally stored within the storage and extinguishing compartment in one side of the pot, and igniting fluid 29 is provided in the other compartment. In order to use the torch in kindling a fire, the cover is removed and the torch is disengaged from the storage compartment and dipped into the igniting fluid in the other compartment, being thereupon lighted and employed in the usual manner in kindling the fire. In order to extinguish the torch the cover 14 is raised, the head of the torch is engaged in the storage extinguishing compartment, and the cover is replaced whereupon the oxygen within the pot is quickly exhausted and the torch is automatically extinguished. The contracted entrance to the storage compartment also aids in extinguishing the torch, as the flame in passing through this contracted entrance will accelerate the exhaustion of the oxygen within the compartment. The torch is thereupon allowed to remain in the storage compartment until it is desired to use it again. If it is desired, however, to allow the torch to absorb igniting fluid while it is stored, it may be transferred from the extinguishing compartment to the fluid compartment and allowed to remain in the fluid until ready to be used again.

I have illustrated and described a preferred and satisfactory embodiment of the invention, but it will be understood that changes may be made therein, within the spirit and scope thereof, as defined in the appended claims.

What is claimed is:

1. A self-extinguishing fire lighter comprising a receptacle pot having an open upper end, a partition within said receptacle pot dividing it into two compartments, one compartment constituting an igniting fluid reservoir and the other compartment constituting a torch storage and extinguishing compartment, a torch comprising a handle rod and a torch head, said torch head being receivable by insertion in one or the other of the said compartments, and a movable cover engaged with the open upper end of said receptacle pot to close both of said compartments.

2. A self-extinguishing fire lighter comprising a receptacle pot having an open upper end, a partition within said receptacle pot dividing it into two compartments, one compartment constituting an igniting fluid reservoir and the other

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compartment constituting a torch storage and extinguishing compartment, a torch comprising a handle rod and a torch head, said torch head being receivable by insertion in one or the other of the said compartments, and a movable cover engaged with the open upper end of said receptacle pot to close both of said compartments, said cover having in its edge a notch which accommodates by reception the handle rod of said torch.

3. A self-extinguishing fire lighter comprising a receptacle pot having an open upper end, a centrally disposed vertical partition within said receptacle pot dividing it into two identical compartments, one compartment constituting an igniting fluid reservoir and the other compartment constituting a torch storage and extinguishing compartment, a torch comprising a handle rod and a torch head, said torch head being receivable by insertion in one or the other of the said compartments, and a cover engaged with the upper end of said receptacle pot to close both of said compartments.

4. A self-extinguishing fire lighter comprising a receptacle pot having an open upper end, the upper portion of said receptacle pot having a contracted neck, a partition within said receptacle pot dividing it into two compartments, one compartment constituting an igniting fluid reservoir and the other compartment constituting a torch storage and extinguishing compartment, a torch comprising a handle rod and a torch head, said torch head being receivable by insertion in one or the other of the said compartments, and a movable cover engaged with the upper end of said receptacle pot to close both of said compartments.

5. A self-extinguishing fire lighter comprising a receptacle pot having an open upper end, a partition within said receptacle pot dividing it into two compartments, and having its upper edge spaced below the upper end of said receptacle pot, one compartment constituting an igniting fluid reservoir and the other compartment constituting a torch storage and extinguishing compartment, a torch comprising a handle rod and a torch head, said torch head being receivable by insertion in one or the other of the said compartments, and a movable cover engaged with the upper end of said receptacle pot to close both of said compartments.

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