June 10, 1924. 1,496,798

A. WEILER

BURNER EXTINGUISHER

Filed July 19, 1923

Fig. 1.

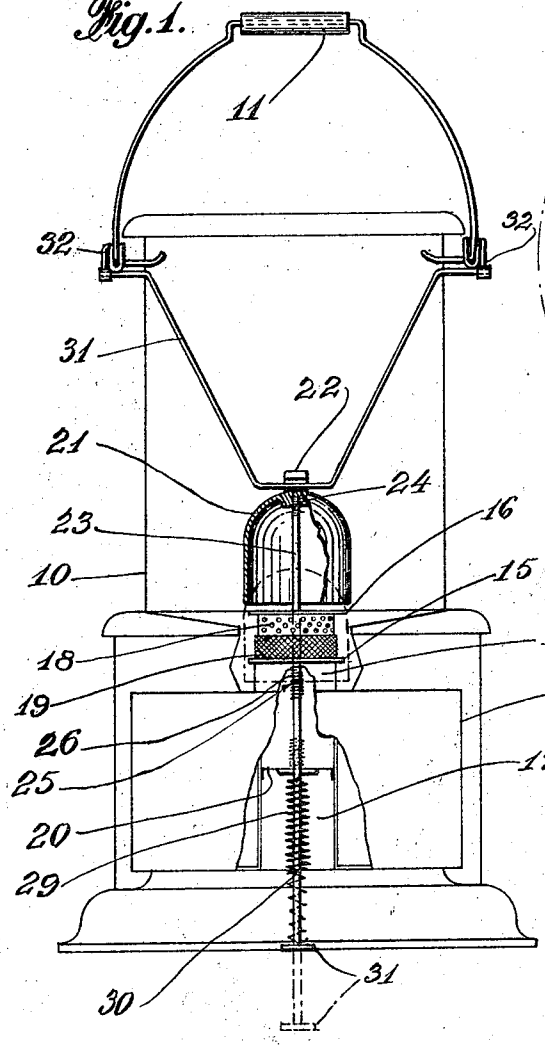
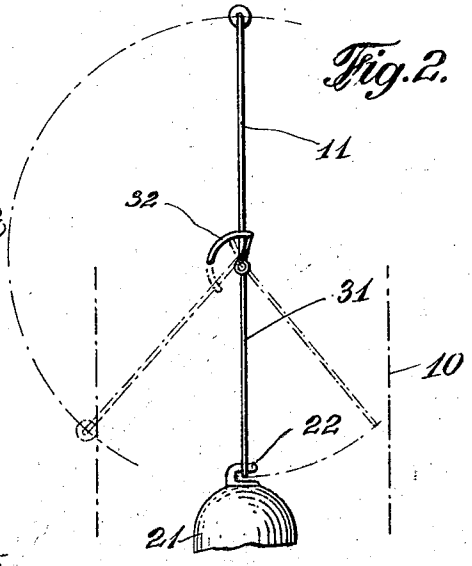


Fig. 2.



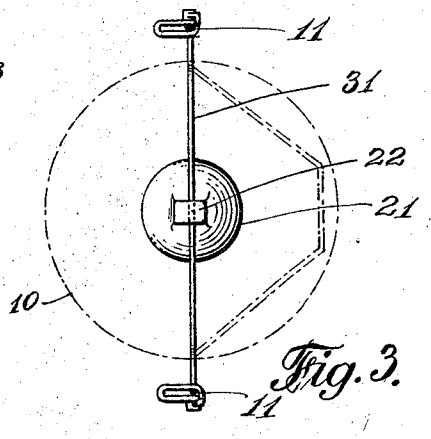
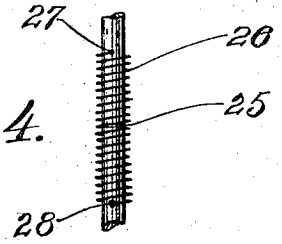


Fig. 3.

Fig. 4.



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UNITED STATES PATENT OFFICE.

ANDREW WEILER, OF BROOKLYN, NEW YORK.

BURNER EXTINGUISHER.

Application filed July 19, 1923. Serial No. 652,513.

To all whom it may concern:

Be it known that I, ANDREW WEILER, a citizen of the United States, and resident of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Burner Extinguishers, of which the following is a specification.

This invention relates in general to burner extinguishers and particularly to the kind adapted for hydro-carbon burners, using either wicks or the evaporation process for burning the fuel.

The prime object of my invention is to provide a simple and inexpensive and positively workable flame extinguisher, adapted to immediately cover the entire burner, including the flame deflector and the flame producing element, the moment the burner leaves its normal upright position.

Another object of my invention is to provide in combination with such burner having carrying means, an automatically operable suspension element for my burner extinguisher, which will normally disengage the latter while it will immediately engage and suspend the extinguisher when the burner is carried from place to place.

Another object of my invention it to provide in connection with my burner extinguisher, a self adjustable suspension rod, comprising two independent members flexibly connected with each other and adapted to adjust itself to varying lengths and out-of-true positions, when applied to existing burners.

The foregoing and further objects will be more fully apparent from the following description and the accompanying diagrammatical drawings, forming part of this disclosure, but serving purely for illustrating my idea thereof.

In the drawings, Figure 1 represents a diagrammatical view of a burner to which my extinguisher is attached. Figure 2 is a diagrammatical partial side elevation of my device. Figure 3 is a diagrammatical top view thereof partially in section, with the handle removed.

Figure 4 shows a detail view of the flexibly connected adjustable suspension rod.

Referring to the drawings, numeral 10 denotes the housing of the burner, which may be carried by means of a handle 11 attached to the housing in the usual way.

In the lower part of the housing there is provided a fuel container 13, from which extends the burner proper, indicated at 14, comprising a wick support 15 and a deflector plate 16. The burner proper is, usually, connected with container 13, with a central air passage 17 left free to permit the air to pass from within through a plurality of perforations 18 against the wick 19. There is usually provided within the passage a perforated stiffening plate 20.

My burner extinguisher comprises a dome-shaped hollow member 21, which is equipped with a hook-shaped element 22, the purpose of which will be explained later. From within the dome-shaped member 21 extends downward a suspension rod 23, which is conveniently attached to the dome shaped member at 24. Rod 23 is composed of two individual members separated at 25 and held in flexible connection with each other by means of a spring 26, which is attached at 27 and 28, respectively, to the upper and lower rod members.

The upper portion of rod member 23 passes through the deflector plate 16, while the lower rod member is guided in the perforated stiffening plate 20.

Bearing against the stiffening plate 20 is a heavy expansion spring 29, permanently associated at 30 with the lower rod member.

At the end of the lower rod member there is provided a rest plate 31, adapted to bear against the floor or other support upon which the burner is placed.

The moment the burner leaves its normal upright position, spring 29 expands and propels rod 23 in downward direction, thereby causing it and also dome 21 to descend, whereby the latter is caused to cover both the deflector plate 16 and the flame producing element, which in this case is the wick 19.

Since, it is, however, desired to carry the burner from place to place, it would be annoying to have the flame of the burner extinguished any time the burner is moved. For this purpose I have devised an arrangement, whereby the action of expansion spring 29 is counteracted and dome 21 kept above the burner proper, when the burner is to be carried. This arrangement is clearly seen in Figures 1, 2 and 3.

Pivotally arranged below the suspension points of handle 11 is an upper dome suspension member 31 of any convenient shape, so arranged as to engage at the desired position hook element 22. The ends of upper suspen-

sion member 31 protrude through housing 10 and terminate into arcuated loops 32, through which pass the ends of handle 11. These loops are so arranged as to permit handle 11 to freely swing in one direction to a certain point, and the moment this point is reached by the handle, the loops will be swung with the handle, whereby the upper suspension member 31 is caused to disengage hook element 22, of the dome 21, as shown in broken lines in Figure 2.

Since, however, the handle 11 is brought upwards in a position where the burner is to be carried, the upper suspension member 31, is brought into vertical position, so as to engage hook element 22. In this case when now the burner is lifted by means of the handle, the dome is not permitted to descend upon the burner, whereby the extinguishing of the flame is prevented.

As has been said, the rod 23 is composed of two individual flexibly connected members, so as to allow for automatic longitudinal adjustment of the rod, when my device is attached to various standard makes of burners.

While I have shown a specific construction of my device, be it understood that changes and improvements may be made without departing from the broad scope of my invention, for which I claim:—

1. In combination with a burner having means for carrying it, a burner extinguisher, comprising a dome shaped member adapted to completely cover the deflector and the flame producing element of a burner, said dome-shaped member having an upper suspension means, a suspension means engaging member associated with and operable by said carrying means of said burner and adapted to engage said suspension means when said carrying means are in operative position, and to disengage said suspension means when said carrying means are in inoperative position.

2. In combination with a burner having means for carrying it, a burner extinguisher, comprising a dome shaped member, having a hook element at its curved upper portion, and adapted to cover the deflector and flame producing element of a burner, a suspension rod passing through the burner and attached to said dome-shaped member adapted to normally suspend said member above the burner and to cause it to descend over and completely cover said burner when the latter leaves its normal upright position, an upper suspension member associated with and operable by said burner carrying means and adapted to engage said hook element of said dome-shaped member when said carrying means are in operative position and to disengage said hook element when said carrying means are in inoperative position.

3. In combination with a burner, a burner extinguisher as per claim 2, said suspension rod comprising two individual flexibly connected members adapted to provide for varying adjustments.

Signed at Brooklyn, in the county of Kings and State of New York, this 13th day of July, A. D. 1923.

ANDREW WEILER.