June 7, 1932. L. E. GRIFFING 1,862,082

FIRE EXTINGUISHER

Filed April 19, 1930

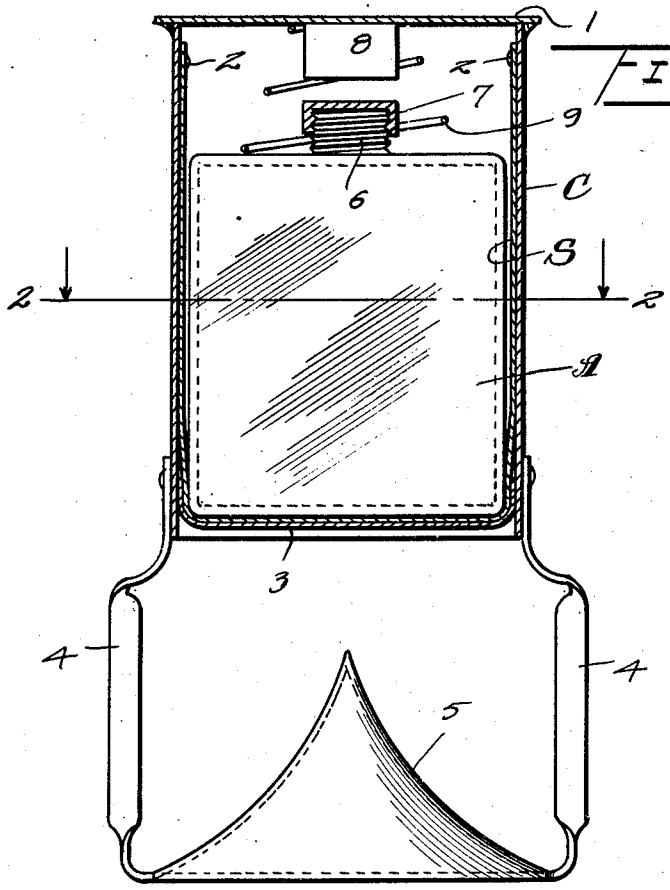


Fig. 1.

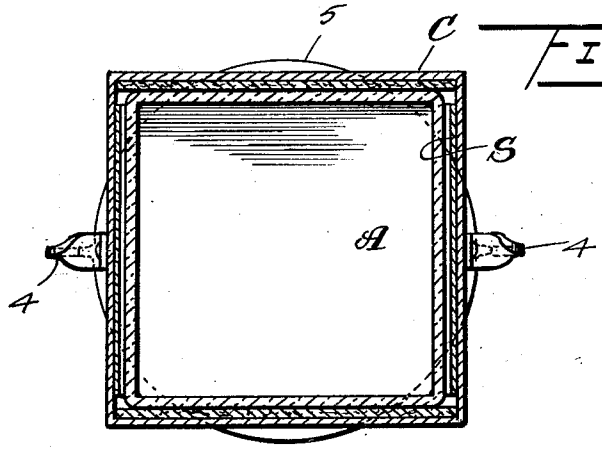


Fig. 2.

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UNITED STATES PATENT OFFICE

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FIRE EXTINGUISHER

Application filed April 19, 1930. Serial No. 445,740.

This invention relates to a fire extinguisher and has relation more particularly to a device of this kind which is especially adapted for use in connection with automobiles although I do not desire to be understood as limiting my device for this particular purpose.

It is an object of the invention to provide a device of this kind comprising a casing in which is supported by a fusible element a container holding a desired supply of fire extinguishing fluid, together with means whereby upon release of the container the fluid therein will be effectively distributed over a relatively large area to facilitate the extinguishing of a fire.

Another object of the invention is to provide a device of this kind wherein a fire extinguishing fluid container is supported above a breaking element whereby said container when released is effectively demolished, thus assuring the desired distribution of the fire extinguishing fluid.

The invention consists in the details of construction and in the combination and arrangement of the several parts of my improved fire extinguisher whereby certain important advantages are attained and the device rendered simpler, less expensive and otherwise more convenient and advantageous for use, as will be hereinafter more fully set forth.

The novel features of my invention will hereinafter be definitely claimed.

In order that my invention may be the better understood, I will now proceed to describe the same with reference to the accompanying drawing, wherein:—

Figure 1 is a view partly in section and partly in side elevation illustrating a fire extinguisher constructed in accordance with an embodiment of my invention;

Figure 2 is a sectional view taken substantially on the line 2—2 of Figure 1 looking in the direction of the arrows.

As disclosed in the accompanying drawing, C denotes a casing made of metal or other desired material and which is substantially square in cross section. This casing has one end closed by a head 1 while the opposite end is open. This casing C is adapted to normally house therein a container A, the walls of which being of glass or other fragile material, and which is adapted to contain the desired amount of fire extinguishing fluid, such as carbon tetrachloride. This container A is held within the casing C by a fabric saddle S, the extremities of which being suitably anchored, as at 2, to side walls of the casing C with the container A resting from above upon the intermediate portion of the saddle.

The saddle S is saturated with a preparation which is highly inflammable upon contact with the flame but which is susceptible of withstanding a relatively high heat temperature free of a flame. This preparation may be as desired but preferably comprises an admixture of potassium chlorate, beeswax and paraffin. The potassium chloride is mixed with the beeswax and paraffin when melted and such preparation after being applied to the saddle S is forced therein under pressure, as by ironing. After the saddle S has been suitably prepared I find it of advantage to dispose over the outer face of the saddle S a lamination 3 of paper coated with the same preparation as has been applied to the saddle proper. By the use of this paper the saddle proper is effectively protected against moisture and to further assure such protection, it is to be noted that the saddle S is so positioned within the casing C that it is entirely therein. Or, in other words, no portion of the saddle is extended beyond the open end of the casing.

Opposed walls of the casing C at substantially their transverse centers have secured therein the arms 4 of desired length and which are preferably integrally formed with the marginal portion of a cone-like disc or member 5, the apex of which being disposed toward the open end of the casing C at the axial center thereof but spaced a distance therefrom.

It is also to be particularly noted that the arms 4 along their major lengths are turned to bring their flat faces substantially radial to the disc or member 5 so that upon breakage of the container A when dropped upon the disc or member 5, said arms will offer no un-

due hinderance or obstruction to the effective distribution of the fire extinguishing fluid.

The end of the container A inserted within the casing C at substantially its axial center is provided with a filling opening defined by an outstanding neck 6 with which may be engaged a screw cap 7 or the like. This, however, is an immaterial feature as the container A may filled in any manner desired.

The head 1 of the casing C at substantially its axial center is provided with an inwardly disposed lug 8 which serves as a guide or holding means for an end portion of a coil spring 9 preferably spiral with the larger end of said spring in direct contact with the inner or inserted end of the applied container A.

The head 1 is not applied to the casing C until after the saddle S and the container A have been properly arranged within the casing C and as the head 1 is applied the previously placed spring 9 will be brought under desired tension, preferably twenty-five pounds, the head 1 is then soldered or otherwise securely anchored to the casing C.

After the saddle S burns to release or free the container A, the container will be forcibly thrown by the spring 9 into contact with the disc or member 5, thus assuring the desired breakage of the container A.

My improved fire extinguisher is especially adapted for use in connection with automobiles as it can be readily supported by suitable brackets under the hood or cowl and at such points where the liability of fire is most apt to occur. As the means for holding the extinguisher in desired applied or working position form no part of the present invention it is not believed that such holding means need be described or illustrated.

The walls of the casing C other than those with which the saddle S are associated are provided with a lining 10 of asebestos so that the applied container A will be effectively protected against surrounding heat.

From the foregoing description it is thought to be obvious that a fire extinguisher constructed in accordance with my invention is particularly well adapted for use by reason of the convenience and facility with which it may be assembled and operated, and it will also be obvious that my invention is susceptible of some change and modification without departing from the principles and spirit thereof and for this reason I do not wish to be understood as limiting myself to the precise arrangement and formation of the several parts herein shown in carrying out my invention in practice except as hereinafter claimed.

I claim:—

1. A fire extinguisher comprising, in combination, a casing open at one end, an inflammable saddle within the casing, a container for fire extinguishing fluid within the casing and resting upon the saddle, the walls of the container being fragile, means operating to forcibly project the container out through the open end of the casing upon burning of the saddle, and a part positioned outwardly of the casing but in relatively close proximity to the open end thereof for breaking the container upon being discharged from the casing.

2. A fire extinguisher comprising, in combination, a casing open at one end, an inflammable saddle within the casing, a container for fire extinguishing fluid within the casing and resting upon the saddle, the casing below the saddle being open, the walls of the container being fragile, and means positioned below the opening of the casing so as to be engaged by the container when released for breaking the container.

3. A fire extinguisher comprising, in combination, a casing open at one end, an inflammable saddle within the casing, a container for fire extinguishing fluid within the casing and resting upon the saddle, the casing below the saddle being open, the walls of the container being fragile, means positioned below the opening of the casing so as to be engaged by the container when released for breaking the container, and means for forcibly ejecting the container when released by the saddle.

4. A fire extinguisher comprising, in combination, a casing open at one end, an inflammable saddle within the casing, a container for fire extinguishing fluid within the casing and resting upon the saddle, the casing below the saddle being open, said saddle being quickly inflammable upon direct contact with a blaze but otherwise resisting heat of a high temperature, a spring interposed between the container and the end wall of the casing, the applied saddle holding said spring under tension so that upon burning of the saddle the spring will forcibly project the container from the casing, and means positioned below the opening of the casing so as to be engaged by the container after dropping through the opening of the casing to break the container.

5. A device of the class described comprising a casing, a container for fire extinguishing fluid within the casing, inflammable means for supporting the container within the casing, said casing having an opening through which the container drops when released by the supporting means, and a conoidal member supported below the opening of the casing, the apex of said member being disposed toward the casing, the container being fragile, said conoidal member providing means to be engaged by the container for dropping through the opening of the casing for breaking the container.

6. A device of the class described comprising a casing, a container for fire extinguishing fluid within the casing, inflammable

means for supporting the container within the casing, said casing having an opening through which the container drops when released by the supporting means, a conoidal member supported below the opening of the casing, the apex of said member being disposed toward the casing, the container being fragile, said conoidal member providing means to be engaged by the container after dropping through the opening of the casing for breaking the container, and means for supporting said conoidal member from the casing.

In testimony whereof I hereunto affix my signature.

LEWIS E. GRIFFING.