M. DE F. SAMPLE.

FIRE EXTINGUISHER.

APPLICATION FILED FEB. 5, 1920.

1,362,745. Patented Dec. 21, 1920.

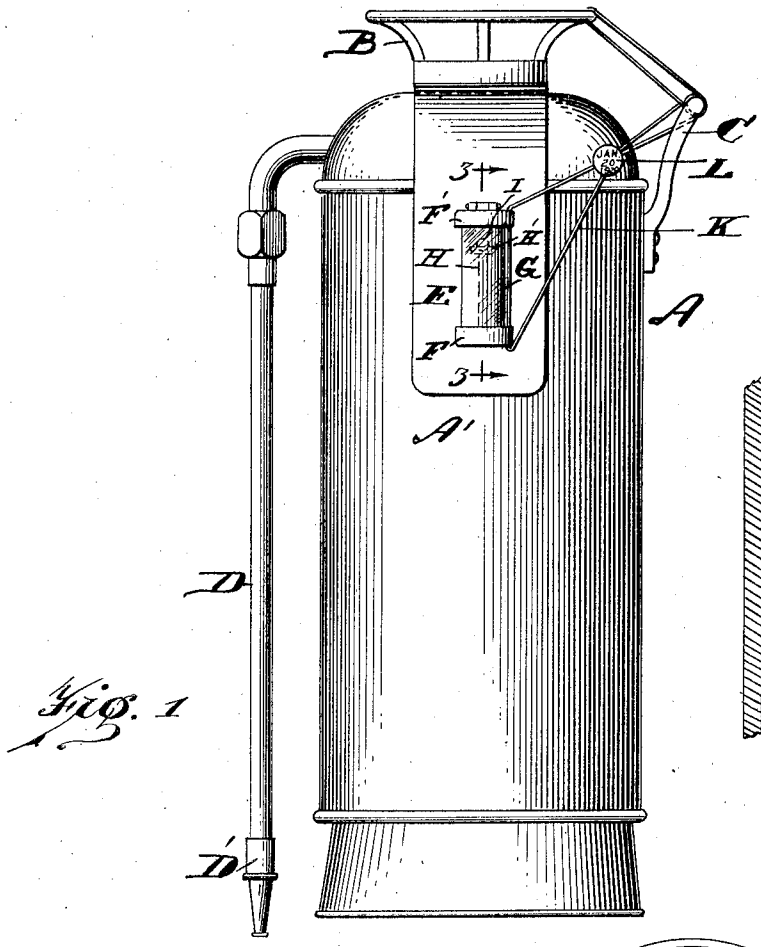


Fig. 1

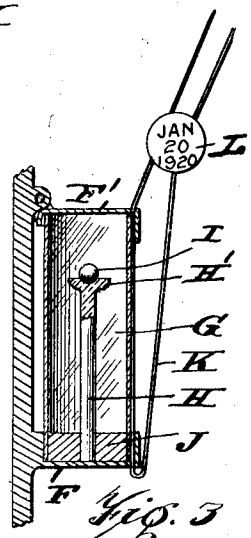


Fig. 3

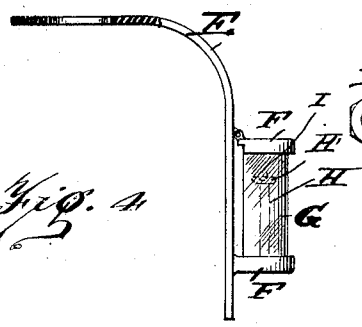


Fig. 4

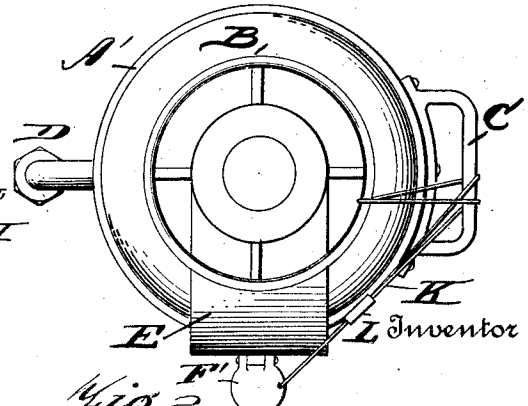


Fig. 2

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FIRE-EXTINGUISHER.

1,362,745. Specification of Letters Patent. **Patented Dec. 21, 1920.**

Application filed February 5, 1920. Serial No. 356,519.

To all whom it may concern:

Be it known that I, MORRIS DE F. SAMPLE, citizen of the United States, residing at Detroit, county of Wayne, State of Michigan, have invented a certain new and useful Improvement in Fire-Extinguishers, and declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to fire extinguishers of the portable tank type containing a solution of bicarbonate and also a small vessel containing mineral acid, which by coming into contact with the bicarbonate solution through the manual tilting of the tank, generates carbon dioxid;—this gas mixed with the water of the solution is then discharged upon the fire through a hose by its own pressure.

It is well known that fire extinguishers of this character, while very efficient if the chemicals and solutions are fresh, are frequently inoperative because the tank may have been inadvertently or maliciously tilted, thereby mixing the solutions, and causing the discharge of the contents of the tank.

It is, therefore, one of the objects of the present invention, to provide means adapted to indicate "at sight", whether the tank has been tilted, or its contents tampered with since it was installed in position, or last inspected.

With the foregoing, and other objects in view, which will appear as the description proceeds, the invention resides in the combination and arrangement of the parts and in the details of construction, hereinafter described and claimed, it being understood that changes may be made in the precise embodiment of the invention, herein disclosed, without departing from the spirit of the invention.

In the accompanying drawings, forming part of this specification:—

Figure 1, is a side elevation of a fire extinguisher, showing my invention installed thereon.

Fig. 2, is a plan view of the same.

Fig. 3, is a vertical longitudinal sectional view on line 3—3 of Fig. 1.

Fig. 4 is a side elevation of the device attached to an "apron" or "hanger" for use upon fire extinguishers now on the market.

Referring to the letters of reference placed upon the drawings:—

A, denotes a fire extinguisher of the type referred to in the opening paragraph of this specification.

B, indicates the handle of a closure cap fitted to the top of the tank A′.

C, denotes a handle by which the device may be carried, or suspended from a hook.

D, is a hose and D′ a nozzle through which the contents of the tank may be discharged.

As the interior arrangement of the tank and its several elements are of the usual construction and form no part of this invention, it will not be necessary to enter into a detailed description of the same.

E, is an apron, secured between the closure cap attached to the handle B, and upper wall of the tank A′ and extending downwardly therefrom adjacent to the outer wall of the tank.

F, is a circular cup-shaped bracket, preferably integral with the wall of the apron, and F′ is a cup-shaped cap spaced from the bracket F, hinged to the wall of the apron.

G, is a glass tube or it may be a small bottle, lodged between the cups F and F′ in which is centrally supported a stem H, having a dish-shaped table top H′ to receive a globule of mercury, I.

J, is a disk of paraffin, surrounding the lower end of the stem for supporting the latter.

K, is a wire, wrapped around the handle B and C, and extending through apertures in the cups F and F′.

L, is a soft lead seal—on which may be impressed the date of inspection—for securing the ends of the wire that the device may not be tampered without the fact being detected.

Having now indicated the several parts by reference letters, the construction and operation of the device will be readily understood:—

When the tank has been properly charged with the acid and bicarbonate or other solutions, it is mounted upon a shelf or other suitable support, and a globule of mercury is then placed upon the dish-shaped table H′, the wire seal K and L is then connected

with the handles and engaged with the caps F and F′ through the openings provided therein. The date of installation may be impressed in the lead seal by a suitable die that later inspectors may be advised when it was installed or last inspected.

Should any one tip the tank the globule of mercury will be discharged from its supporting table, and it cannot be replaced without removing or breaking the wire seal. It will thus be seen that an inspection may be quickly and thoroughly made throughout a factory or public building in which a large number of extinguishers may be installed to determine their operative condition, while the fact that the device is "sealed" in the manner shown will serve to deter mischievous or maliciously inclined persons from tampering with the same.

Instead of supporting the device from an "apron" it may be secured directly to the wall of the tank.

In place of a globule of mercury, a shot or any other easily displaced element may be employed.

Having thus described my invention what I claim is:—

1. The combination of a fire extinguisher, of a chamber attached to said fire extinguisher, a globule of mercury, and means housed within the chamber for supporting the globule of mercury in an elevated position for displacement and deposit upon the bottom of the chamber upon tilting of the latter.

2. The combination of a fire extinguisher, of a transparent tube attached to said fire extinguisher, a globule of mercury and a dish-shaped support for the mercury within the chamber, said support being wholly free of the side wall of the chamber.

3. The combination of a fire extinguisher, of a transparent chamber, means for supporting said chamber, hinged means adapted to close over one end of the chamber, means lodged within the chamber for supporting a globule of mercury substantially midway of the ends of the chamber, and a seal adapted to engage the closure cap of the extinguisher, and the hinged and supporting means for the transparent chamber.

4. In a fire extinguisher, an apron adapted to be secured to the fire extinguisher having a tube supporting bracket, a hinged cap spaced from the bracket, a transparent chamber supported between the bracket and the hinged cap, a globule of mercury, a table within the transparent chamber for normally supporting the globule of mercury, and a suitable sealing means engaging the closure cap of the fire extinguisher and the hinged cap and bracket of the transparent chamber.

5. The combination of a fire extinguisher, a chamber attached to the fire extinguisher, a supporting device rising from the bottom of said chamber and terminating short of the upper end of the latter and spaced from the side walls of the chamber, the support having a cavity in its upper end, and a displaceable element mounted in said cavity for movement out of the latter upon tilting of the chamber, the said displaceable element upon displacement being capable of movement between the upper end of said supporting device and the side walls of the chamber.

In testimony whereof, I sign this specification in the presence of two witnesses.

MORRIS DE F. SAMPLE.

Witnesses:
S. E. Thomas,
Joseph A. Rosenberger.