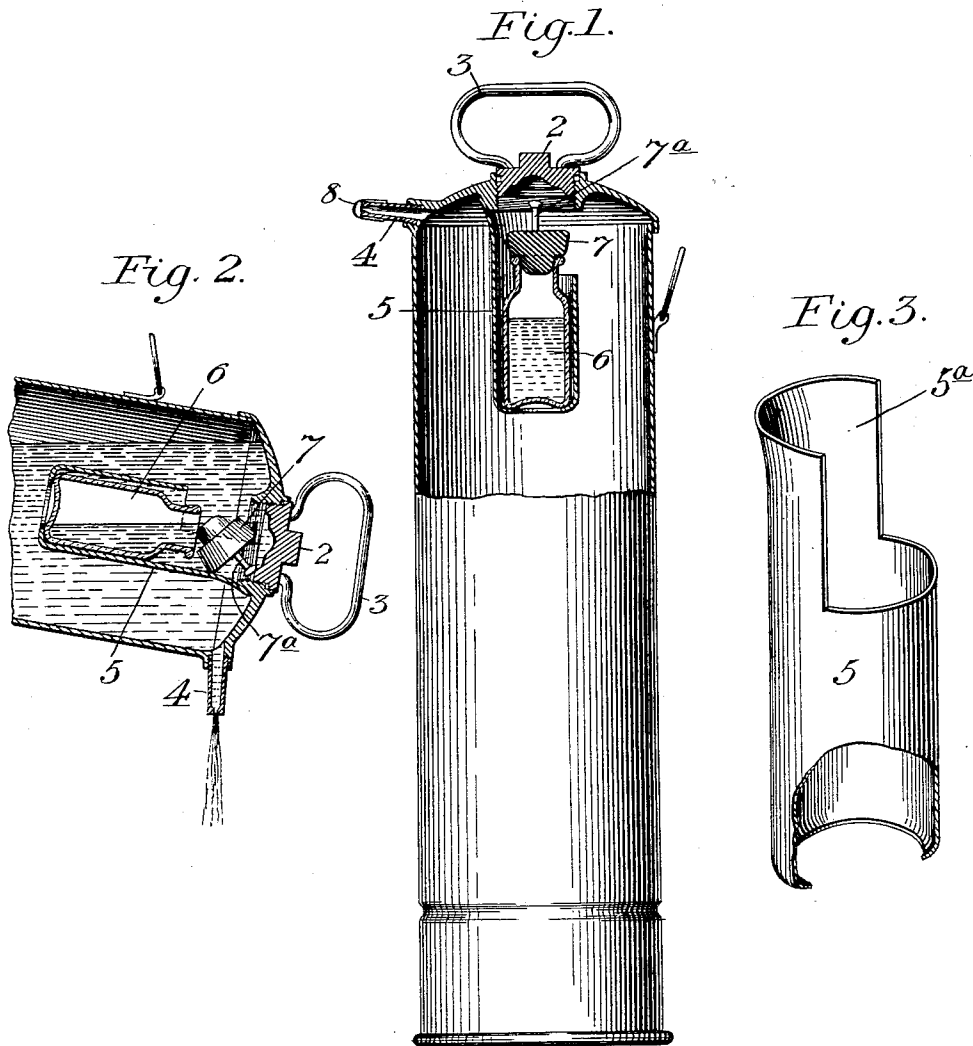


(No Model.)

W. C. POMFRET & T. B. KEATING.
HAND CHEMICAL FIRE EXTINGUISHER.

No. 588,005.

Patented Aug. 10, 1897.



Witnesses:

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HAND CHEMICAL FIRE-EXTINGUISHER.

SPECIFICATION forming part of Letters Patent No. 588,005, dated August 10, 1897.

Application filed January 16, 1896. Serial No. 575,701. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM C. POMFRET and THOMAS B. KEATING, of Utica, in the county of Oneida and State of New York, have
5 invented certain new and useful Improvements in Hand Chemical Fire-Extinguishers; and we do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in
10 the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the numerals of reference marked thereon, which form part of this specification.

15 Our invention relates to improvements in hand fire-extinguishers.

In the drawings which accompany and form a part of this specification and in which similar numerals of reference refer to corresponding parts in the several views, Figure 1 shows
20 our fire-extinguisher, partially in vertical central section, in normal or out-of-use position. Fig. 2 shows in section the apparatus in position for use. Fig. 3 shows details of the acid-
25 bottle holder constituting a part of the device.

Referring to the reference-figures in a more particular description of the device, 1 indicates the cylindrical tank, which constitutes the body of the device, and this tank
30 is provided at its upper end with a screw-threaded stopper 2, having a handle 3, by which the device as a whole can be carried or handled, and is also provided with a discharge stop or nozzle 4. At the upper end of
35 the tank and secured at the side of the opening close by the stopper 2 is the shield-like holder 5, adapted to hold the acid-bottle 6, as shown. The neck portion 5^a of this shield-
40 like holder is opposite the nozzle 4 for purposes which will hereinafter appear. For closing the acid-bottle 6 there is provided the stopper 7, preferably of lead and having a projection 7^a quite similar in form and size
45 to the head of the wire nail. The apparatus is charged by filling the tank or body portions substantially two-thirds full, or, say, up
50 to the bottom of the hanger 5, with a salt-water solution, which may also contain other substances. The bottle 6, which is readily removable through the opening closed by the screw-cap 2, is filled partially with sulfuric

acid and is then placed into the hanger 5 through the opening on the top of the tank. The stopper 7 is then placed in position, as shown in Fig. 1, and the cap 2 applied, as
55 shown in the same figure.

In view of the fact that hand-extinguishers of this kind are but seldom used, and to prevent foreign matter coming into the discharge-
60 nozzle 4, we provide a cap 8, which is slipped onto the tip of the nozzle, but is capable of being forced off by the pressure of the material inside when the apparatus is brought into use.

To bring the apparatus into use after being
65 charged as described, it is partially inverted or brought substantially into the position shown in Fig. 2. In this position the contents of the tank run down to the handle
70 end of the device, and the acid, or a portion of it, runs out of the bottle 6 and, mingling with the contents of the tank proper, generates a gas which forces the contents of the tank out through the nozzle 4 and at the same
75 time converts it into a chemical compound which may be designated a "chemical fire-extinguishing compound." When the
80 extinguisher is inverted to bring it into operation, the weighted stopper 7 falls into the position shown in Fig. 2, whereby, the projection 7^a thereof engaging in the opening in the
85 end of the tank closed by the screw-cap 2, it is prevented from being displaced and also retains the bottle 6 in its position, so that when the apparatus is again brought into a
90 normal vertical position the stopper will fall back onto and close the bottle. By this arrangement the stopper and bottle retain their position and the stopper is not lost or dropped
95 into the bottom of the tank. The neck portion 5^a of the bottle-hanger acts as a shield or protection on the discharge-nozzle side and prevents the acid from the bottle getting out of the nozzle before its chemical action on the contents of the tank has had a chance to take
place.

What we claim as new, and desire to secure by Letters Patent, is—

The combination in a hand chemical fire-extinguisher of an invertible tank having an
100 opening in its upper or head end, a screw-cap 2 closing the opening, a suspended bottle-

holder 5, rigidly secured to the head at the side of the opening and depending into the tank in line with the opening and having a shield-like neck 5^a and a cut-away portion as
5 shown, the cylindrical acid-bottle 6 adapted to be placed in and removed from the holder through the opening, the weighted bottle-stopper 7 having a projecting head 7^a extending within the opening closed by the stopper
10 2, and the discharge-nozzle 4 at the top of the

tank opposite the neck-shield of the bottle-hanger, substantially as set forth.

In witness whereof we have affixed our signatures in presence of two witnesses.

WILLIAM C. POMFRET.
THOMAS B. KEATING.

Witnesses:

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