(No Model.)

A. E. LYTLE.

HAND GRENADE FIRE EXTINGUISHER.

No. 337,344. Patented Mar. 2, 1886.

Fig. 1.

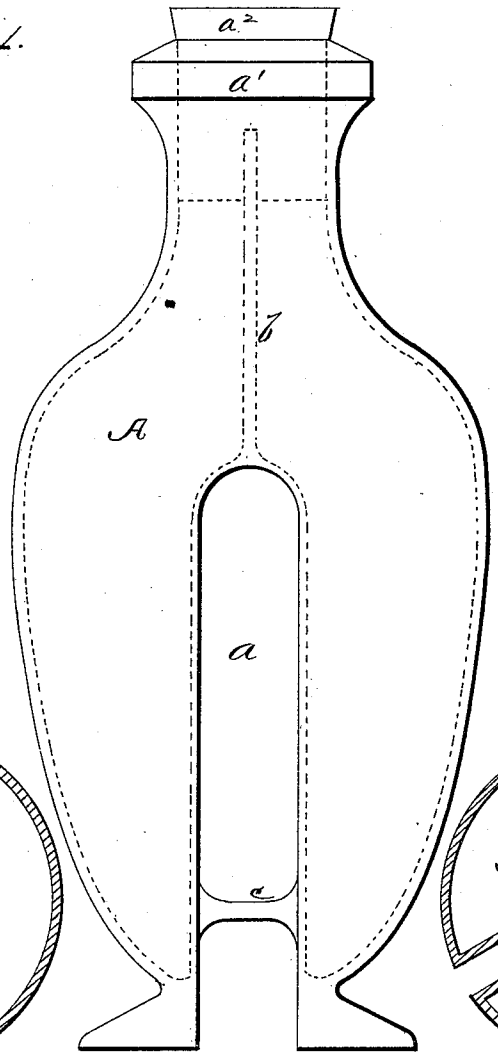


Fig. 2.

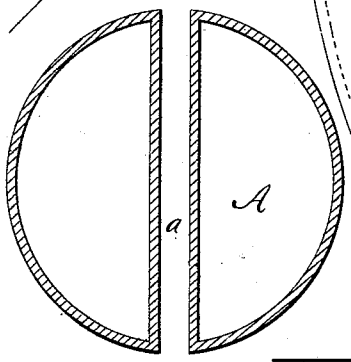


Fig. 3.

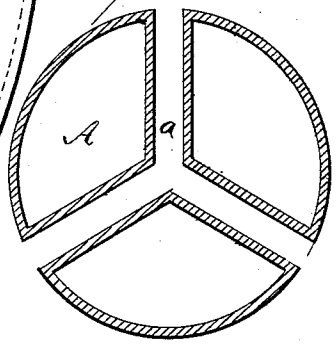


Fig. 5.

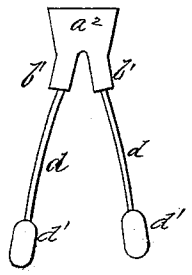
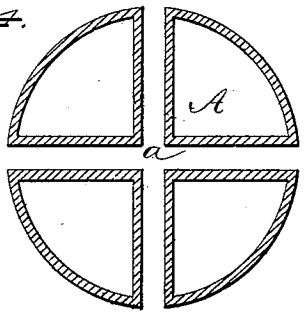


Fig. 4.



Witnesses:
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per
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UNITED STATES PATENT OFFICE.

ALBERT E. LYTLE, OF CHICAGO, ILLINOIS.

HAND-GRENADE FIRE-EXTINGUISHER.

SPECIFICATION forming part of Letters Patent No 337,344, dated March 2, 1886.

Application filed February 16 1885. Serial No. 156,100. (No model.)

To all whom it may concern:

Be it known that I, ALBERT E. LYTLE, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Hand-Grenade Fire-Extinguishers, of which the following is a specification, to wit:

This invention relates to an improvement in hand-grenade fire-extinguishers; and it consists in certain peculiarities of the construction and arrangement of the same, substantially as will be hereinafter more fully set forth and claimed.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the accompanying drawings, in which—

Figure 1 is a side view of a grenade constructed according to my invention. Fig. 2 is a cross-section of the same. Figs. 3 and 4 are sections of modified forms. Fig. 5 represents the cork.

A represents a bottle of glass or other suitable frangible material intended for use as a receptacle for chemicals, and forming what is known as a "hand-grenade fire-extinguisher." This bottle is formed with one or more slots, *a*, extending into its body a suitable distance from the lower end, thus dividing the main body of the bottle into two or more parts having a common neck or outlet, *a'*, as seen in Fig. 1, closed by a cork or stopper, a^2, of rubber or other suitable material. The main portion of the bottle is, as seen, formed in two or more parts by the slots *a*, each part forming, essentially, a separate bottle or compartment for the reception of the chemicals or gas.

In Fig. 1 is shown in dotted lines a partition, *b*, which is formed in the bottle, extending up into the single neck, to complete the division of the device into separate chambers. The stopper a^2 fits closely in its seat, and in cases where the partition *b* is used, the lower end of the stopper is forked or pronged, as at *b'*, which prongs enter the passages leading to the several compartments and aid in effectually stopping the escape of the extinguishing-gas.

Much annoyance has been felt by the failure of hand-grenades in breaking when thrown on a fire, and this is obviated in this form of bottle, as when one part of the body strikes an object, the tendency to press together the parts as the shock is felt will aid materially in breaking the body and releasing the contents, it being evident that the angular portions of the pronged or slotted bottle cannot have the strength possessed by a complete one in one piece. In some cases I connect the parts or chambers by a small stud, *e*, across the slot *a*, which gives sufficient strength to allow handling and transportation, and in being thrown the part which is first to strike drives this connecting-stud into the other part and breaks this also.

In the form of bottle shown it is very easy to insert the chemicals used. Two of these are commonly used—one in liquid, and the other in powdered form—and various modes have been used to prevent their uniting to form a gas till the bottle can be properly sealed. In this bottle, when used without the partition *b*, one may be placed in one compartment and one in another, and thus separated till sealed when they are united by shaking or inverting the device. This is not practical, however, when the partition is used, and the whole is practically divided into separate parts. In this case the proper amount of liquid is placed in each part and the powder suspended by a cord or wire, *d*, from the cork, in a gelatine or other capsule or shell, *d'*, which is destroyed by the liquid, but separates the materials, long enough for the purpose. One of these enters each part of the bottle as the cork is inserted, and the gas is thus formed after sealing.

This bottle is also used to contain different liquids in druggists' windows and similar purposes.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A bottle having its body forked or formed in several portions connecting with a single neck, substantially as and for the purpose set forth.

2. A hand-grenade formed of frangible material and having a dividing slot extending into its body from one end, substantially as and for the purpose set forth.

3. In a hand-grenade, a bottle of frangible material having a slot extending into it from one end, and a partition within the body extending from the termination of said slot to the neck, substantially as and for the purpose set forth.

4. In a hand-grenade, a frangible bottle formed with a partition extending into its neck, in combination with a cork or stopper having its end forked to receive the partition and close each chamber, substantially as and for the purpose set forth.

5. In a hand-grenade, a bottle divided by open slots into several chambers, and having a stud connecting said parts across the slot, substantially as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

ALBERT E. LYTLE.

Witnesses:
CHAS. KRESSMANN,
W. C. MCARTHUR.