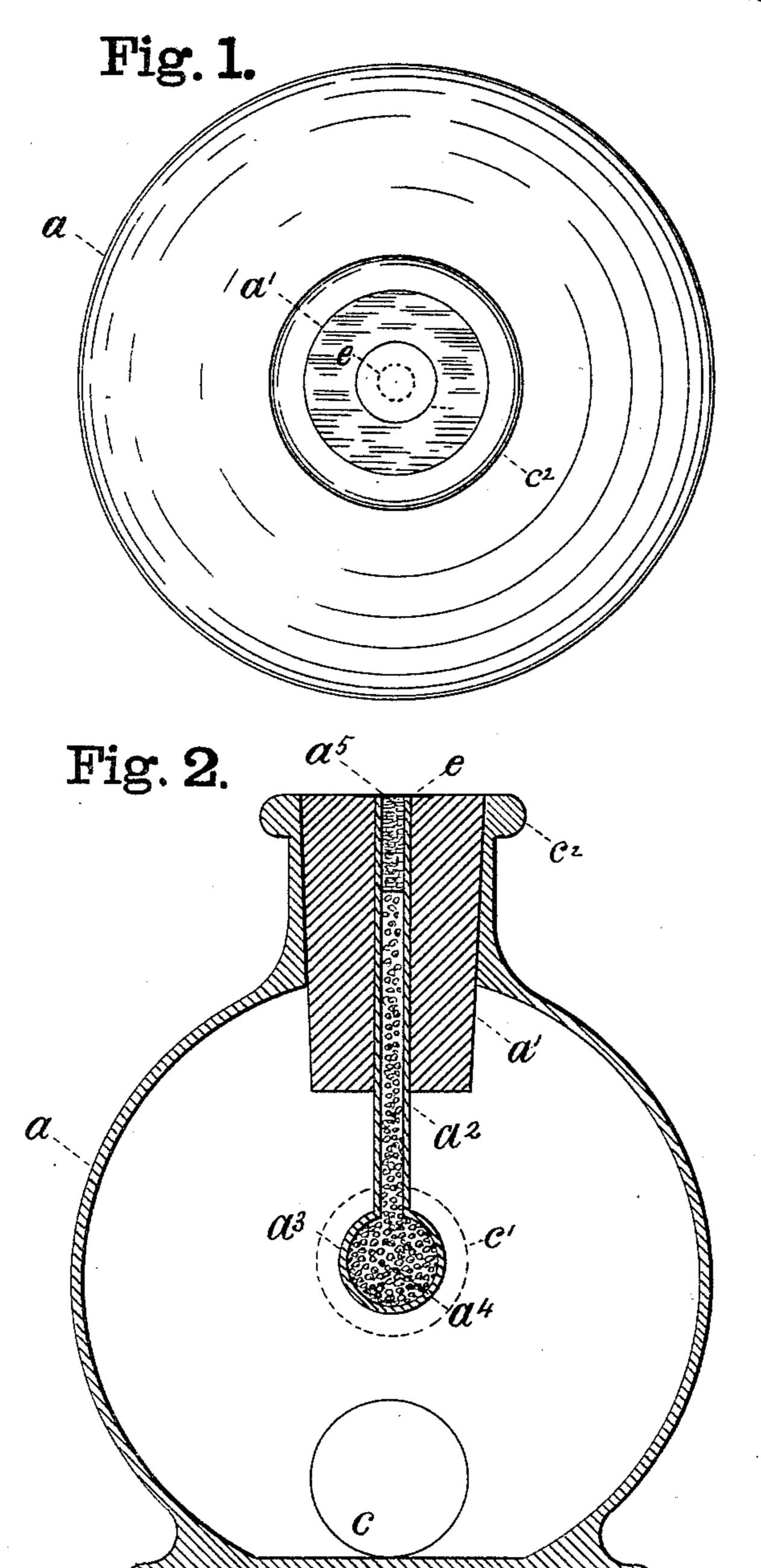
(No Model.)

## A. F. LETSON & F. HONEGGER.

EXPLOSIVE HAND GRENADE EXTINGUISHER.

No. 318,761.

Patented May 26, 1885.



Witnesses.

Jennic Caldwell,

Inventor.

Augustus F. Letson and Fredrick Honegger By James Sangeter atty.

## United States Patent Office.

AUGUSTUS F. LETSON AND FREDRICK HONEGGER, OF BUFFALO, N. Y.

## EXPLOSIVE HAND-GRENADE EXTINGUISHER.

SPECIFICATION forming part of Letters Patent No. 318,761, dated May 26, 1885.

Application filed March 19, 1884. (No model.)

To all whom it may concern:

Be it known that we, Augustus F. Letson and Fredrick Honegger, citizens of the United States, residing in Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Explosive Hand-Grenade Extinguishers, of which the following is a specification.

The object of this invention is to provide to the means to render more certain the operation of a hand-grenade fire-extinguisher and to simplify the construction of the same.

It is well known that as now constructed three or four of such are often thrown into the 15 fire before one is broken, thereby causing delay in the operation of the extinguisher when time is of the utmost importance. Our invention is designed to obviate this objection by an instantaneous action the moment it 20 reaches the fire, which explodes the grenade and scatters its contents over the fire; and it consists of a shell to hold the fire-extinguishing liquid and a cork provided with a bulb containing explosive material, having a water-proof 25 covering, all of which will be fully and clearly hereinafter described, claimed, and shown by reference to the accompanying drawings, in which—

Figure 1 is a top view of the device, and 30 Fig. 2 represents a vertical central section through the same.

The shell of the grenade a is made of glass or other similar material.

a' is the cork, which may be made of any suitable well-known material. It is provided with a hole through the center, or thereabout, into which is fitted and secured the tubular part a' of the shell a'. This shell is filled with gunpowder, a', or other suitable explosive ma-

terial. A fuse of any well-known material, 40  $a^5$ , is placed in the upper part of the tube  $a^2$  along with the powder, and over it is secured a thin plate of tin-foil, e, to keep it watertight. The charge of powder is just sufficient to burst the shell a and scatter the contents 45 through the fire.

The shell a is filled with a simple fire-extinguishing liquid, requiring no additional material to be mixed with it to make it effective, and consequently no second chamber or vessel to hold another liquid; but, if desired, an additional shell, c, may be placed within the shell a, which may be either thrown in loosely, as shown at c, or connected to the shell a<sup>3</sup>, as shown by the dotted lines c', so that it 55 will burst at the same time with the shell a<sup>3</sup>. This shell c is used when it is desired to use an alkali to be mingled with an acid on the bursting of the shell; but the device is designed to be used either with or without it.

In operating with this invention the grenade is thrown into the fires, an explosion instantly follows, and the contents for extinguishing the fire are scattered about.

We claim as our invention—
A glass hand-grenade extinguisher consisting of a single shell, a, to hold the fire-extinguishing liquid, a cork, a', provided with a bulb and tube filled with a charge of gunpowder, and a suitable covering of tin-foil or 70 equivalent water-proof material, substantially as and for the purpose described.

AUGUSTUS F. LETSON. FREDRICK HONEGGER.

Witnesses:

JENNIE M. CALDWELL,
JAMES SANGSTER,