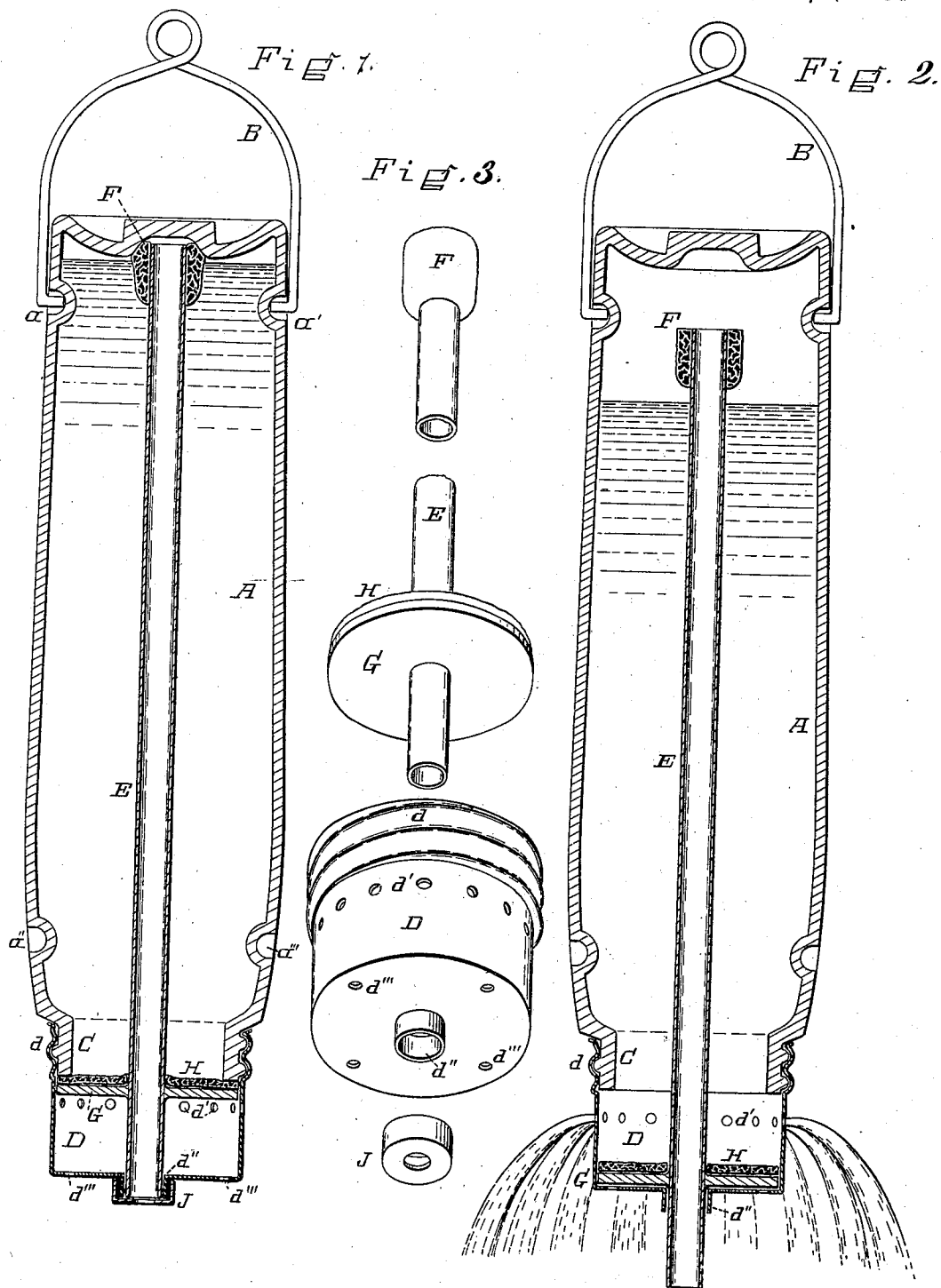


(No Model.)

J. A. WAGNER.
CHEMICAL FIRE EXTINGUISHER.

No. 321,161.

Patented June 30, 1885.



Attest:
A. P. Knight
Geo. Wheelock

J.  Inventor:
John A. Wagner
By Knight Bros. & Co.

UNITED STATES PATENT OFFICE.

JOHN A. WAGNER, OF MIDDLETOWN, OHIO.

CHEMICAL FIRE-EXTINGUISHER.

SPECIFICATION forming part of Letters Patent No. 321,161, dated June 30, 1885.

Application filed May 18, 1885. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. WAGNER, of Middletown, Butler county, Ohio, have invented a new and useful Improvement in Fire-Extinguishers, of which the following is a specification.

The invention relates to the class of fire-extinguishers which comprises a bottle or other receptacle for the chemical, which bottle, when desired to operate automatically, is placed in condition for service by being suspended mouth downward from the ceiling or other selected part of the room to be protected, the said mouth being closed by a material which is fusible at a temperature but little in excess of the highest to which the atmosphere will reach apart from artificial aid.

The invention consists in substantially the following arrangement of parts, whereby the bottle, when in its normal condition, is sealed: The mouth of the bottle is provided with a metallic cap having a series of perforations around it near its junction with the shoulder of the bottle, and having a nipple at its center, within which loosely slides a tube, which, extending into and the whole length of the bottle, terminates in an india-rubber tip or pad, which bears against the interior end of the bottle. Secured to this tube, and within the cap above referred to, is a collar or piston, which, when the said padded extremity of the tube is firmly seated on the inner end of the bottle, as aforesaid, is interposed between the interior of the bottle and said orifices, and thereby prevents communication of said interior with the outer air. Said padded extremity of the tube is, in the normal condition of the bottle, held firmly against the end thereof, as aforesaid, by means of a capsule, which, surrounding the said nipple, is temporarily fastened thereto by soft solder or other cementing substance such as will melt at any heat notably above the highest ordinary atmospheric temperature—such, for example, as 150° Fahrenheit. On being subjected to any such excessive or unwonted temperature the melting of the solder permits the said capsule and its supported air-inlet to drop, in obedience in part to the gravitation of the parts and partly to the outthrust of the imprisoned gases, and in so doing permits entrance of air through the tube above the liquid contents, which thus escape freely through the

cap-ajutages in the form of spray or fine jets unimpeded by the entering air.

In the accompanying drawings, Figures 1 and 2 are vertical sections of my apparatus in its normal and its discharging conditions, respectively. Fig. 3 represents certain portions in perspective.

A is my bottle, preferably of glass and of the represented approximately cylindrical shape, and having depressions *a a'* diametrically opposite each other, near the closed end of the vessel, to receive the ends of a bail, B, of spring-wire, so as to enable suspension of the apparatus in the inverted position shown.

The screw-threaded neck C of the bottle receives the correspondingly-threaded cylindrical cap D, preferably of metal. The said cap has, a little below its threaded portion *d*, a horizontal series of orifices, *d'*, and has at the center of its closed end or crown a nipple, *d''*, fitted to slide easily, within which is a cylindrical tube, E, open at both ends, and whose inner end carries an annular pad or tip, F, of india-rubber. The dimensions of the parts are such that when the tube E is pushed fully into the bottle, as shown at Fig. 1, the lips of the pad F become firmly seated against the inner surface of the end of the bottle, and thus forbid any communication to the interior of the bottle through said tube from the outer air.

A piston or collar, G, having rubber or other packing, H, which fits and hermetically closes the interior of the cylindrical cap, is so secured to the tube E as, in the position of said tube shown in Fig. 1, to be located between the series of orifices *d'* and the interior of the bottle, or, in other words, to be above said orifices, and in the position shown in Fig. 2, to rest upon the closed end or crown of the cap, so as to be then wholly below said orifices.

In the normal condition of the apparatus (shown in Fig. 1) the tube and its adjuncts are retained in their elevated position by soldering to the nipple *d''* the cup-formed capsule J.

One or more minute ventages, *d'''*, in the end of the cap D permit such escape of air as to facilitate the descent of the tube E on the melting of the solder, as aforesaid.

Depressions *a'' a'''* near the shoulder of the bottle may enable suspension mouth upward when desired.

The same bottle may be used as a fire-extin-

guishing grenade by being tossed bodily into the fire, or, the cap and its attachments being removed, the open bottle may be employed as a hand-sprinkler.

- 5 In order to secure efficient weight, so as to expedite descent of the liberated air-tube E, its collar G is preferably composed of lead.

I claim as new and of my invention—

1. In a fire-extinguisher, the combination of
10 bottle A, constructed for suspension in the inverted position, the cap D, having the series of orifices d' , the nipple d'' , and the ventage d''' , the gravitating tubular air-inlet E, having the piston G, fitting within the cap, and the an-
15 nular pad F, adapted to press hermetically against the upper end of the bottle in the normal condition of the apparatus, and to be held to such condition by solder, in the manner and for the purpose explained.

2. In a fire-extinguisher, the combination of 20 bottle A, constructed for suspension in the inverted position, the cylindrical cap D, having the series of orifices or ajutages d' , the nipple d'' , and one or more ventages, d''' , and the gravitating tubular air-inlet E, having the piston G, 25 fitting within said cap D, and having the annular pad F, adapted to press hermetically against the upper end of the bottle in the normal condition of the apparatus, and to be held to such condition by capsule J, soldered to the 30 nipple d''' , as and for the purpose set forth.

In testimony of which invention I hereunto set my hand.

JOHN A. WAGNER.

Attest:

GEO. H. KNIGHT,
N. ROCKHOLD.