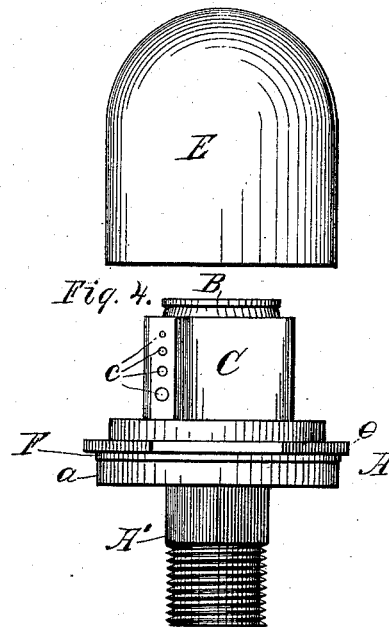
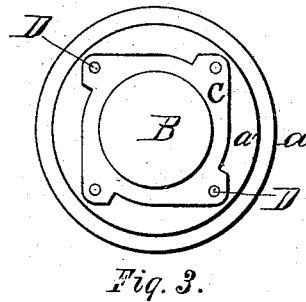
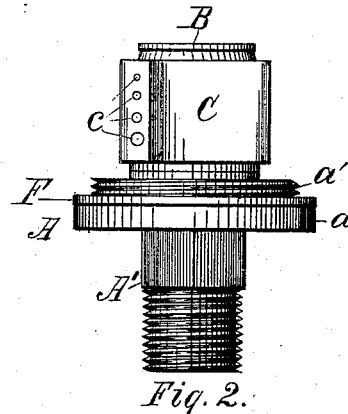
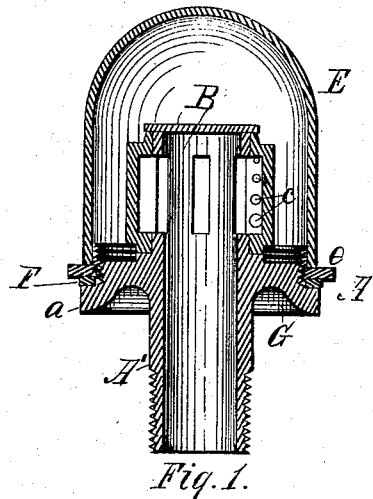


(No Model.)

O. C. HEATH.
AUTOMATIC FIRE EXTINGUISHER.

No. 261,709.

Patented July 25, 1882.



Witnesses:

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UNITED STATES PATENT OFFICE.

OZRO C. HEATH, OF PROVIDENCE, RHODE ISLAND.

AUTOMATIC FIRE-EXTINGUISHER.

SPECIFICATION forming part of Letters Patent No. 261,709, dated July 25, 1882.

Application filed May 2, 1882. (No model.)

To all whom it may concern:

Be it known that I, OZRO C. HEATH, a citizen of the United States of America, residing at Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Automatic Fire-Extinguishers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to certain improvements in automatic fire extinguishers.

An objection is urged against automatic fire-extinguishers wherein the cap which covers the distributor is firmly secured with solder to its base, because of the fact that the water contained in said extinguisher, by reason of the presence therein of vegetable and other impurities, deposits a sediment in and around the working parts of the extinguisher, which prevents its proper working upon the occasion of a fire, and which at other times cannot be removed and the parts be put in working condition without unsoldering and removing the cap.

The purpose of my invention is to overcome this objection by providing an extinguisher in which the cap may be readily removed at pleasure, so that the working parts of the extinguisher may be examined and cleansed, if necessary, and the cap replaced.

To these ends my invention consists of the parts substantially as hereinafter described, and particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a vertical section of my improved automatic fire-extinguisher. Fig. 2 is an elevation with the cap, with its base-plate removed. Fig. 3 is a plan view of Fig. 2, and Fig. 4 is an elevation, showing the cap removed from its base-plate and above the distributor and the base-plate secured to the base.

Corresponding parts in the several figures are denoted by similar letters of reference.

In the annexed drawings, A marks the base of my improved automatic fire-extinguisher,

provided with a depending portion, Δ' , so that it may be fitted in the pipe which conducts the fluid-supply to the distributor.

B marks the neck, secured to or forming part of the base, having ports, and provided with the revolving distributor C, the said neck and distributor being of the same construction as that shown in Letters Patent No. 246,009, granted to me August 23, 1881, with the exception that in the present instance the perforations or fluid-exits c are progressively larger or of greater diameter from the top to the bottom of the distributor, as clearly shown in Fig. 2, and that orifices D are made, one in each corner, in the top of said distributor, as shown in Fig. 3. By this change the distributor is capable of much better results for the reason that the water will be thrown farther as the perforations decrease in size, whereby the surface to be protected will be more thoroughly covered; and, further, the openings in the top of the distributor permit water to be projected against the ceiling of the room containing the distributor, which in turn falls to the floor below the extinguisher, whereby water will be thrown over the entire surface to be protected by said extinguisher.

The base A is turned down or cut away at its edge to provide the lateral flange a and the central projecting disk, a' , the latter having a screw-thread on its periphery, as shown.

E represents the cap, secured to its base-plate e with solder fusible at a low temperature, the said base-plate provided with an interior screw-thread, and the whole adapted to be fitted over the distributor to permit the base-plate to be screwed onto the base, as clearly shown in Fig. 1.

In the present instance the base-plate e abuts against the bottom of the cap and an annular portion extends a slight distance into said cap and is secured to the inside thereof with fusible solder; also, the base-plate has a polygonal peripheral surface to enable it to be readily screwed on or off the base when desired. By thus securing the cap to the base-plate with solder and then screwing the latter onto the base I am enabled to remove the base-plate, with its cap, from the base at any time, to permit an inspection of the distributor. To

make such inspection the water must be shut off from the system of pipes or a portion thereof, as the case may be.

In the event of a fire the heat, when sufficient, will melt the fusible material joining the cap to the base-plate *c*, when, by reason of the pressure of the water in the pipes, the cap will be thrown off and the distributor be uncovered, the base-plate remaining fastened to the base, as before.

A packing-annulus, *F*, preferably made of soft metal, is interposed between the base-plate *e* and the lateral flange *a* of the base to provide a water-tight joint, though I do not consider the packing-annulus an essential feature of my invention, since, if desired, a taper screw-thread may be cut on the base and the base-plate, instead of that now shown, to accomplish the same result. Though I do not wish to so limit myself, I prefer to secure the cap to the base-plate *e* with solder fusible at a temperature of about 100° to 155° Fahrenheit.

The under side of the base *A* is cut away, as at *G*, to facilitate the melting of the fusible material and to provide lightness.

While I have shown and described the base-plate as screwed onto the base, it is evident that the essential element of my invention will be preserved if other means are provided for detachably connecting said base-plate to the base *A*.

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

1. The combination, with a base provided with a distributor designed to spread water or other fluid, of a cap adapted to cover and protect the distributor, and a base-plate secured

with low fusible material to the cap and detachably fastened to the base, as and for the purpose set forth.

2. The combination, with the screw-threaded base provided with a distributor designed to spread water or other fluid, of a cap adapted to cover and protect the distributor, and secured with low fusible material to a base-plate, and the base-plate provided with a screw-thread, substantially as and for the purpose set forth.

3. The combination, with the screw threaded base provided with the lateral flange, and a distributor designed to spread water or other fluid, of the cap, the base-plate having the screw-thread and the polygonal peripheral surface, and a packing-annulus, substantially as and for the purpose set forth.

4. A revolving distributor having a series of perforations or fluid-exits in its side of progressively greater diameters from the top to the bottom of the distributor, substantially as set forth.

5. The combination, with a base provided with a distributor designed to spread water or other fluid, and a cap adapted to cover and protect the distributor, of an interposed plate detachably fastened to said base and firmly secured to the cap with a low fusible material, as and for the purpose set forth.

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

OZRO C. HEATH.

Witnesses:

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