

(No Model.)

O. C. HEATH.

AUTOMATIC FIRE EXTINGUISHER.

No. 266,142.

Patented Oct. 17, 1882.

Fig. 1.

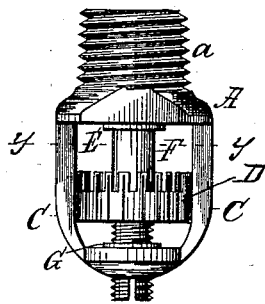


Fig. 2.

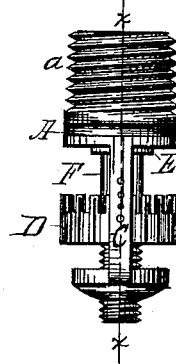


Fig. 5.

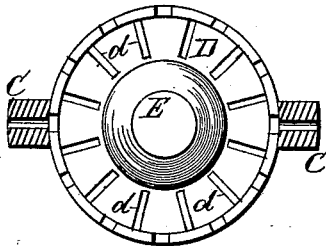


Fig. 3.

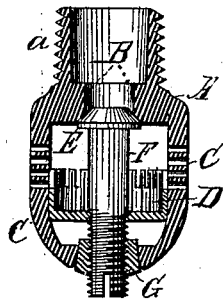
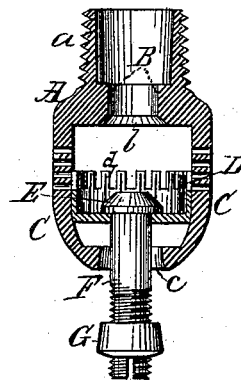


Fig. 4.



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. 266,142, dated October 17, 1882.

Application filed July 6, 1882. (No model.)

To all whom it may concern:

Be it known that I, OZRO C. HEATH, a citizen of the United States, 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.

This invention relates to improvements in automatic fire-extinguishers, the object of which is, first, to remove the low-fusible material from water contact, so as to insure the prompt and efficient working of the extinguisher; secondly, to permit the valve to be removed by hand from its seat without damaging the fusible solder joint; and, lastly, to secure a thorough distribution of the fluid-supply as well immediately below the extinguisher as outwardly from it.

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

In the annexed drawings, Figure 1 is a front elevation of my improved automatic fire-extinguisher. Fig. 2 is a side elevation thereof. Fig. 3 is a longitudinal vertical section on line *x x* of Fig. 2. Fig. 4 is a similar view, with the exception that the valve, its stem, and the seal are shown in the position assumed upon the melting of the fusible solder; and Fig. 5 is a transverse section on line *y y* of Fig. 1, exhibiting a plan of the distributor and valve.

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

Referring to the drawings, A marks the base, provided with the usual screw-threaded portion, *a*, and nozzle B, which is provided at its outer or lower edge with a valve-seat, *b*. Cast in one piece with the base, and depending on opposite sides therefrom, are two arms, C, whose ends are curved toward each other, and are joined to or cast with the annulus *c*. Secured to and within the arms C, between said annulus *c* and base A, is the distributor D, formed of a flat bottom with an upturned annular rim or wall, which is disposed at right angles to said bottom, and is provided with the serrated edge,

as shown, and a number of slits, *d*, extending down the rim or wall and partially across the bottom, as clearly indicated. By means of the slits *d* the fluid-supply is discharged from the distributor in fan-like sheets outward and downward therefrom, thus covering all the space to be protected by said distributor.

E marks the valve secured to one end of the valve stem F, and held against the valve-seat *b* by means of the screw-threaded seal G, which receives the screw-threaded end of the valve-stem F, and is held in the annulus *c* with low-fusible material. The lower end of the valve-stem F is provided with a nick, to permit the stem to be screwed up to press the valve E against its seat *b*. It will be noticed that the valve-stem passes through a central opening in the distributor.

Several openings, H, may be made in the arms C to serve as fluid-exits, so that no break will occur in the distribution of the fluid-supply by reason of said arms C.

The normal position of parts is shown in Figs. 1, 2, and 3.

Upon the occasion of a fire the heat will melt the low-fusible solder with which seal G is secured to annulus *c*, whereupon the valve E will fall from its seat *b* and rest on the bottom of the distributor, as shown in Figs. 4 and 5, when it performs the office of a deflector to direct the fluid-supply through the slits and the serrated edge.

It will be noticed from the foregoing that the valve can be removed from its seat either automatically or by hand; that leakage can be promptly detected and the valve tightened; that the fluid-supply will be distributed below the extinguisher, as well as outwardly from it, thus overcoming an objection incident to many existing extinguishers, and that the valve acts to prevent the escape of fluid-supply until the occasion of a fire, when it then serves as a deflector to secure a better distribution of the fluid-supply.

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

1. In an automatic fire-extinguisher, the combination, with the base provided with a nozzle, of the pendent distributor having the serrated

edge, and the slits extending down the rim and partially across the bottom of the distributor, and the conical valve with its stem, substantially as shown and described.

5 2. The combination, substantially as before set forth, of the base provided with a nozzle and valve-seat, the frame secured to the base and provided with the annulus, and a distributor arranged between said base and annulus, the valve with its screw-threaded valve-stem, and the screw-threaded hard-metal nut secured with low-fusible material to the annulus.

10 3. The base provided with a nozzle and valve-seat, the frame secured to the base and provided with the annulus, the distributor at-

tached to the frame between said base and annulus, and having the upturned rim with its serrated edge, and the slits extending down the rim and partially across the bottom of said distributor, the valve with its screw-threaded stem, and the screw-threaded hard-metal nut secured with low-fusible material to the annulus, in combination, substantially as shown and described. 20

In testimony whereof I affix my signature in presence of two witnesses. 25

OZRO C. HEATH.

Witnesses:

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