(No Model.)

A. S. HARRIS.

FIRE EXTINGUISHER.

No. 263,903. Patented Sept. 5, 1882.

Fig. 1.

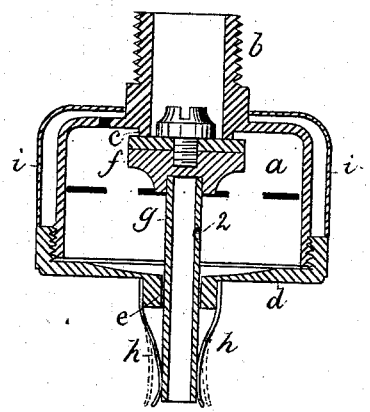
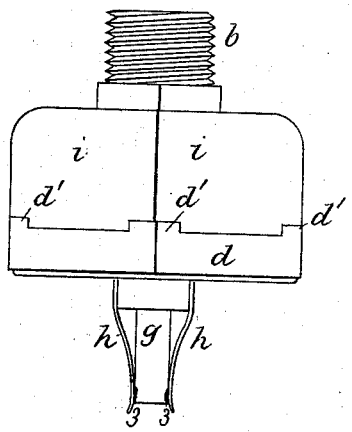


Fig. 2.



Witnesses.
Jos. P. Livermore
John F. C. Brinkhoff

Inventor:
Alphonso S. Harris
by Crosby Gregory Attys.

UNITED STATES PATENT OFFICE.

ALPHONSO S. HARRIS, OF CHELSEA, MASSACHUSETTS.

FIRE-EXTINGUISHER.

SPECIFICATION forming part of Letters Patent No. 263,903, dated September 5, 1882.

Application filed April 17, 1882. (No model.)

To all whom it may concern:

Be it known that I, ALPHONSO S. HARRIS, of Chelsea, county of Suffolk, State of Massachusetts, have invented an Improvement in Fire-Extinguishers, of which the following description, in connection with the accompanying drawings, is a specification.

My invention relates to automatic fire-extinguishers of that class in which a valve is held to its seat by solder or other material fusible at a low temperature, so as to release the valve and permit water to escape when a conflagration takes place.

The present invention is embodied in an extinguisher consisting of a perforated chamber or distributer having a threaded neck to be connected with the water-pipes, and having a valve-seat at the end of the said neck in the said chamber, combined with the threaded end piece for the said chamber, having the valve-stem connected with it by fusible solder.

The valve-stem is made tubular and provided with a passage to permit heated air to flow through it, the stem passing out through a central opening in the end piece of the distributer, and being secured by fusible solder to elastic soldering-strips securely fastened to the said end piece, and tending by their elasticity to spring away from the valve-stem, so that as soon as the solder begins to soften by heat the said soldering-strips will break away therefrom, leaving the valve-stem and valve free to move without obstruction.

The end piece of the distributer is made with wrench-faces or equivalents to enable it to be screwed down to press the connected valve to its seat; and it is also provided with lugs to receive a cap, preferably of thin metal, shaped to correspond with the surface of the distributer, to cover the latter and prevent the perforations being filled with dust or other obstruction, the said cap being made in two pieces, so as to be readily thrown off by the stream of water when released.

Figure 1 is a vertical longitudinal section of an automatic fire-extinguishing apparatus constructed in accordance with this invention, and Fig. 2 is a side elevation thereof.

The main portion *a* of the distributer consists of a perforated cup-like chamber provided with a neck, *b*, adapted to be connected with water-supply pipes in the usual manner, and provided at its end with a valve-seat, *c*.

The said chamber or distributer *a* is provided with an end piece, *d*, threaded to screw thereon, and having a central opening, *e*, opposite the valve-seat *c*.

The valve *f* is provided with a tubular stem, *g*, extending out through the said opening *e* in the end piece, *d*, it being provided with a passage, 2, to permit the heated air to pass through the said valve-stem, as indicated by the arrows.

The end piece, *d*, is provided with soldering-strips *h*, (shown in this instance as two in number,) which are secured to the valve-stem *g* by fusible solder, as shown at 3, Fig. 2, or other suitable material adapted to hold securely at ordinary temperatures, but to fuse or dissolve at a higher temperature. The said soldering-strips *h* are elastic and tend to spring away from the sides of the valve-stem *g*, as shown in dotted lines, Fig. 1, when the said fusible solder is melted, thus leaving the valve-stem and valve free to move without friction.

In order to protect the distributer *a* from the effects of dust or other material settling in its perforations, it is provided with a cap, *i*, made in two pieces, to enable it to be placed upon or moved from the said distributer when connected with the pipe, the said cap being held in position on the said distributer by the cap-holding lugs *d'* on the end piece, *d*. The flow of water through the perforations in the distributer is sufficiently powerful to dislodge the cap *i*.

I claim—

1. In an automatic fire-extinguisher, the distributer provided with a valve-seat, combined with the valve and tubular valve-stem having a passage through its side for the circulation of heated air, substantially as described.

2. The distributer having a valve-seat, combined with the valve, its stem, and elastic soldering-pieces fastened to the said valve-stem by fusible solder, the said soldering-pieces

tending to spring away from the said valve-stem when released by the solder, substantially as described.

3. The perforated distributer and its end piece provided with cap-holding lugs, combined with the divided cap supported loosely upon the said distributer, and held in position by the said lugs, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ALPHONSO S. HARRIS.

Witnesses:
JOS. P. LIVERMORE,
B. J. NOYES.