

(No Model.)

J. R. BROWN.

AUTOMATIC FIRE EXTINGUISHER.

No. 278,216.

Patented May 22, 1883.

Fig. 1

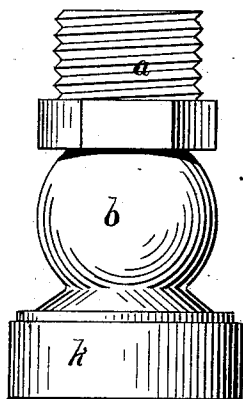


Fig. 2

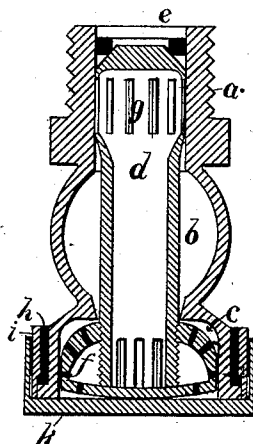


Fig. 3

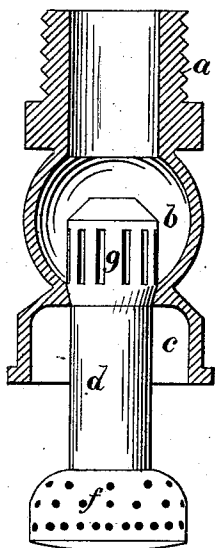
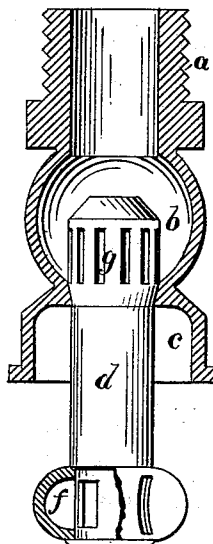


Fig. 4



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOSEPH R. BROWN, OF BRIDGEPORT, CONNECTICUT, ASSIGNOR TO THE
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AUTOMATIC FIRE-EXTINGUISHER.

SPECIFICATION forming part of Letters Patent No. 278,216, dated May 22, 1883.

Application filed February 21, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH R. BROWN, of Bridgeport, in the county of Fairfield and State of Connecticut, have invented a certain new and useful Improvement in Automatic Fire-Extinguishers; and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

This invention has reference to an improvement in automatic fire-extinguishers in which the water or other fire-extinguishing fluid is distributed by means of perforated distributors; and it consists in the peculiar and novel construction of the body or case and a tubular stem arranged to slide into the body and project from the same, as will be more fully set forth hereinafter.

In automatic fire-extinguishers in which perforations are used to distribute the water on the fire, it is important to prevent the entrance of impurities into the distributor, and it is also desirable to protect the distributing device against injury.

Figure 1 is a view of my improved automatic fire-extinguisher. Fig. 2 is a sectional view of the same. Fig. 3 is a sectional view of my improved automatic fire-extinguisher shown in the position occupied when the same is in operation. Fig. 4 is a sectional view of another form of distributor consisting of a slotted revolving ring connected with the telescopic tube.

In the drawings, *a* is a threaded nipple by which the device is secured to a system of pipes.

b is an enlargement of the case.

c is a cavity into which the distributor is placed to protect the same.

d is a tube constructed to slide in and out of the case. The upper end of this tubular stem *d* is closed, and is formed into a conical valve, on which the ring *e* is seated and held by the internal pressure of the water in the pipes, so as to make a tight joint.

f is a distributor perforated with holes or slits. It may be the ordinary rose-sprinkler shown in Fig. 3, or the well-known revolving

distributor shown in Fig. 4. The upper end 50 of the tubular stem *d* is provided with a number of slits, *g*, through which the water enters the stem and is discharged through the distributor. The slits *g* are made smaller than the openings in the distributor, so that 55 the impurities from the pipes cannot enter the distributor. The upper or slitted end of the tubular stem is enlarged, so that when extended it will rest in the contraction of the case, and the distributor be thus supported 60 below the case. When the distributor is placed within the case into the cavity *c* the valve end of the tubular stem bears against the ring *l* and no water can pass into the case. The end of the case is surrounded by 65 the ring *h*, made of any material being a slow conductor of heat. Over this the ring *i* is forced, and to this ring *i* the cap *k* is secured by a solder fusible at a low temperature, which will readily melt on the breaking out of a 70 fire and allow the cap to be released. As no water is near the soldered joint, and as the same is insulated from the rest of the device by the non-conducting ring *h*, the action of this automatic fire-extinguisher is very sensi- 75 tive.

I do not in this application for a patent claim the peculiar valve and ring or the insulating device, as these form part of the subject-matter of another application for a patent 80 filed of even date with this.

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

1. The combination, in an automatic fire-extinguisher, with the case, of a tubular slid- 85 ing stem provided with a distributor and constructed so as to be inclosed in the case, as described.

2. The combination, with the case *b*, provided with the cavity *c*, of the tubular stem 90 *d*, provided with the distributor *f*, constructed to slide within the case when not in use and project beyond the same when in action, as described.

3. The combination, with the case *a b c*, of 95 the distributor *f*, secured to one end of the tubular stem *d*, the other end of which is perforated to act as a strainer, as described.

4. The combination, with the case *a b c*
and the tubular stem *d*, provided with the dis-
tributer *f*, of the insulating-ring *h*, the ring *i*,
and the cap *k*, secured by solder, as de-
5 scribed, and constructed to be released by the
action of heat to permit the extension of the
distributor beyond the case, as described.

In witness whereof I have hereunto set my
hand.

JOSEPH R. BROWN.

Witnesses:

MORRIS B. BEARDSLEY,
CHARLES E. WILMOT.