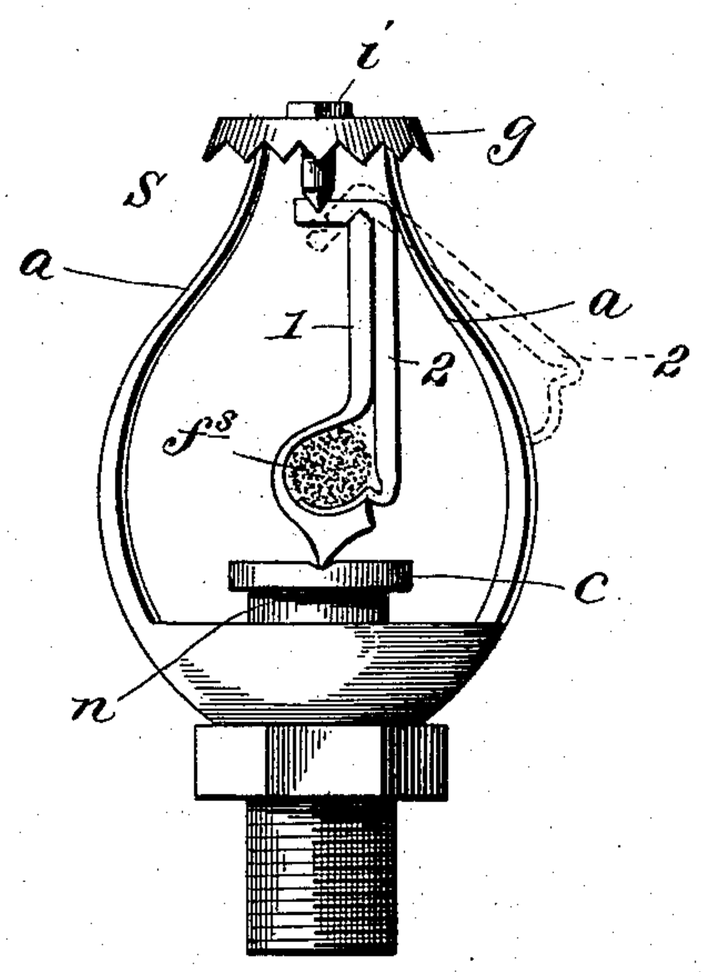
(No Model.)

C. E. BUELL.

AUTOMATIC FIRE EXTINGUISHER.

No. 570,900. Patented Nov. 10, 1896.



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AUTOMATIC FIRE-EXTINGUISHER.

SPECIFICATION forming part of Letters Patent No. 570,900, dated November 10, 1896.

Application filed December 26, 1895. Serial No. 573,333. (No model.)

To all whom it may concern:

Be it known that I, CHARLES E. BUELL, of North Plainfield, Somerset county, State of New Jersey, have invented Improvements in Automatic Fire-Extinguishers, of which the following is a specification.

My invention consists in the improved fusible fastening for automatic sprinklers comprising a two-part strut in which a supporting member is provided with a deflected portion and a second member is pivoted thereon with its short arm at right angles thereto and its long arm bent at its terminal to conform to the deflected portion of the first-named member, and the two members thus placed are secured by a fusible substance, substantially as hereinafter described.

The drawing shows an automatic sprinkler embodying my invention, the mass of fusible substance employed, shown to illustrate the same, being larger in proportion to the other parts of the device than would be necessary in practice.

In the drawing there is shown an automatic sprinkler having a valve *c* covering its outlet *n*, the said valve being held to its seat by a fusible fastening that consists of the levers 1 and 2, arranged to give a toggle-joint pressure as the two levers are pressed together.

The lever 2 has its lower end made to conform to the contour of lever 1, and the lever 2 thus constructed is pressed into the pocket-like portion of lever 1 and the end of lever 2 pressed down so as to interlock with lever 1, and a mass of fusible material *fs* inserted or melted in to hold lever 2 interlocked with lever 1. The fusible fastening thus constructed is forced down by screw *i* to hold valve *c* to its seat.

When the sprinkler thus formed is subjected to heat, the mass *fs* melts, the depressed portion of lever 2 is released from the interlocked connection with lever 1 and passes out, as shown by the dotted line, and the fusible fastening is wholly released and removed, opening the sprinkler.

The curved portion of lever 1 can be elastic and serve to accelerate the removal of the fusible fastening, or a special spring can be embodied in the structure in the ordinary manner.

The lever 1 can be of hard rubber or other material than metal.

The advantage of this form of constructing a fusible fastening is that with the fusible material inserted as a mass there is less liability to accidental opening due to a fracture of the solder or fusible substance as compared with those fusible fastenings in which a film of solder is relied upon.

The details of the levers 1 and 2 may vary without departing from my invention.

What I claim is—

1. A fusible fastening that comprises a support and a member pivoted thereon that has its free end of elastic material and with its free end held interlocked with the supporting member by a mass of fusible substance interposed in the path in which the released member would move.

2. An easily-fusible fastening for automatic sprinklers that comprises a support 1 having its lower end rounded and tapered to rest in the groove in valve-plate *c* and provided with a deflected and protruding portion, a lever 2 pivoted upon said support with its short arm at a right angle thereto and its long arm bent at its terminal to conform to the deflected and protruding portion of the said support, and a fusible substance securing the said lever to the said support.

3. An automatic sprinkler having its outlet held normally closed by a valve resting upon a rigid seat, a fusible fastening forcing said valve to its seat that consists of a two-part strut formed of the support 1 with its lower end resting in the groove in valve-plate *c*, and provided with a deflected and protruding portion, a lever 2 pivoted upon said support with its short arm at a right angle thereto, and the terminal of the long arm bent to conform to the deflected and protruding portion of said support, the said support and said lever being secured together by a fusible substance, means for forcing said fusible fastening firmly against said valve-plate, and an elastic portion in the assembled structure for giving a thrust to the movable parts of the said two-part strut when the same is released by the action of heat.

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