

(No Model.)

A. M. BURRITT & L. D. CASTLE.

FIRE EXTINGUISHER.

No. 248,253.

Patented Oct. 11, 1881.

fig. 1

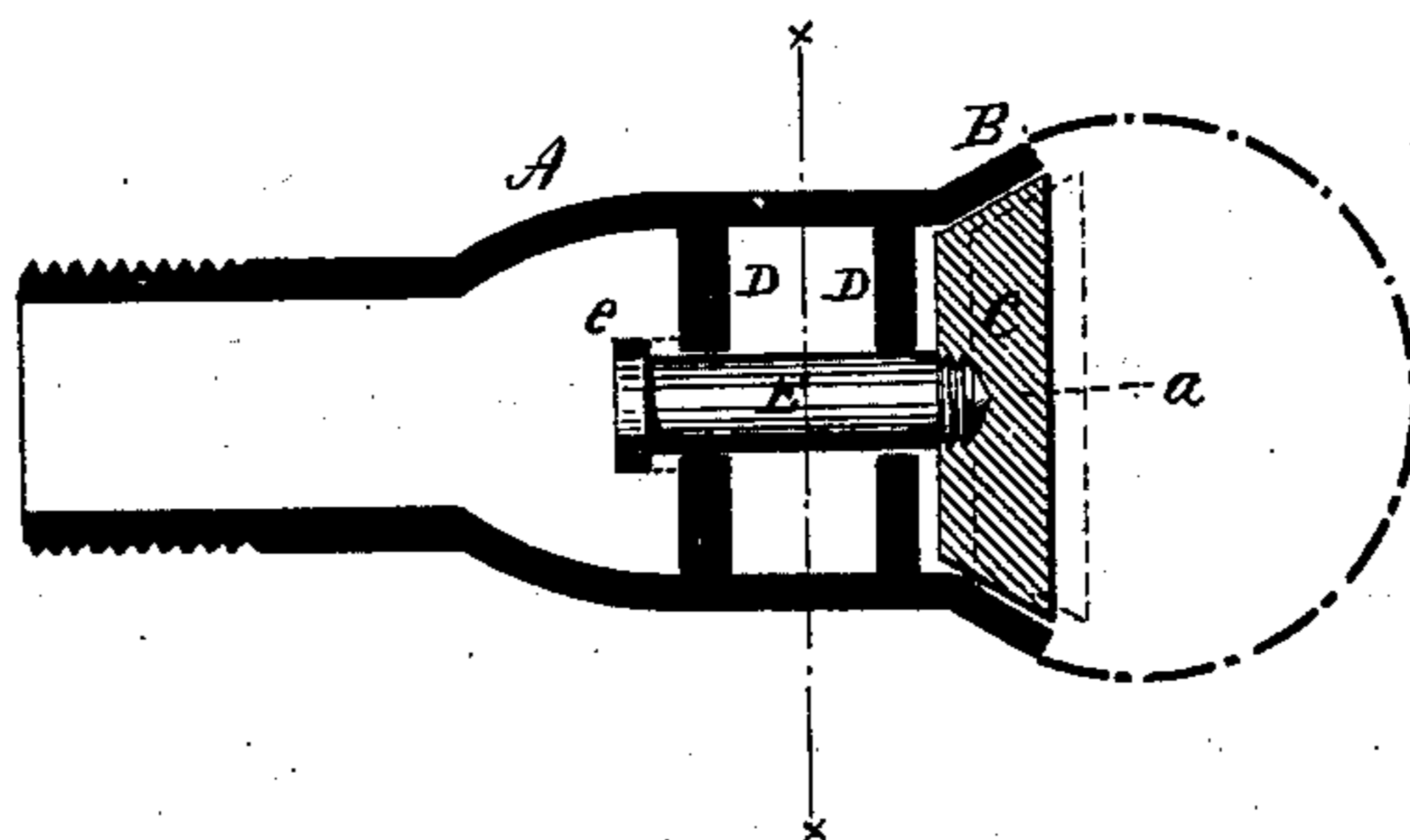
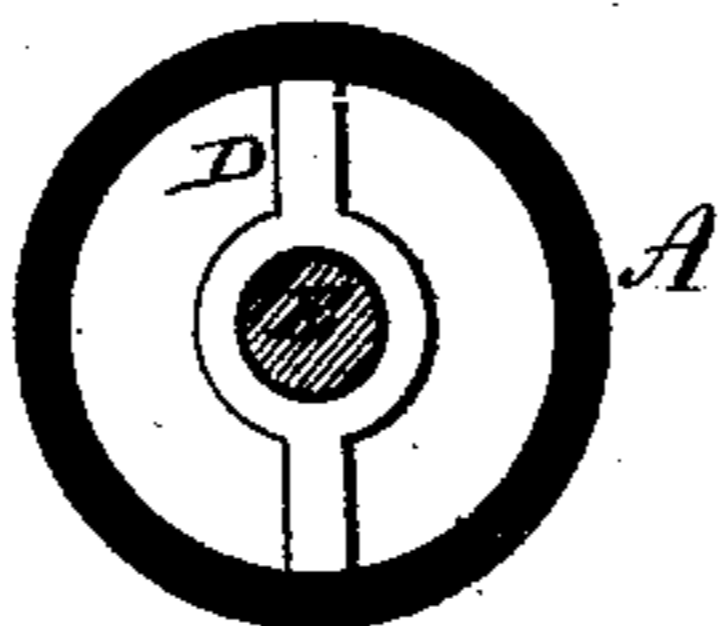


fig. 2



Witnesses.

J. H. Gummey
L. D. Rogers

Albert M. Burritt &

Lewis D. Castle

Inventors

By atty.

John E. Early

UNITED STATES PATENT OFFICE.

ALBERT M. BURRITT AND LEWIS D. CASTLE, OF WATERBURY, CONN., ASSIGN-
ORS TO THE A. BURRITT HARDWARE COMPANY, OF SAME PLACE.

FIRE-EXTINGUISHER.

SPECIFICATION forming part of Letters Patent No. 248,253, dated October 11, 1881.

Application filed August 22, 1881. (No model.)

To all whom it may concern:

Be it known that we, ALBERT M. BURRITT and LEWIS D. CASTLE, of Waterbury, in the county of New Haven and State of Connecticut, have invented a new Improvement in Fire-Extinguishers; and we do hereby declare the following, when taken in connection with the accompanying drawings, and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a longitudinal section; Fig. 2, a transverse section.

This invention relates to an improvement in that class of fire-extinguishers which consist in openings or nozzles arranged at different points in a line of supply-pipe, and in which the flow is prevented by a plug fusible at a low degree of heat, so that when fire occurs near the nozzle the water will be liberated by the heat arising from the fire and flow through the nozzle to extinguish the fire.

In some cases the plug is of fusible metal entirely. In others it is a metal plug secured by fusible metal. In either case the plug requires renewing after it shall have been once removed or destroyed by heat. Again, a distributor is necessary, in connection with such plugs, in order to throw the water in the form of spray.

The object of this invention is to provide a plug which shall simply open by the application of heat, and in so opening will form a passage for the water, through which it will be forced in the form of spray, and also to hold the plug or limit its movement, so that it will move from its seat only sufficiently far to permit the requisite flow of water, and also so that after the flow the opening may be temporarily closed by the plug itself, as more fully herein-after described.

A represents the nozzle, which is connected with the supply-pipe in the usual manner. Its outer end, B, is made in the form of a conical valve-seat, and so that the plug C, which is made of hard metal, may fit close thereon.

Within or across the nozzle is one or more bridges, D, through which a spindle, E, passes,

having a head, *e*, in rear of the inner bridge, and so that it may take a bearing thereon and prevent the spindle from being drawn outward. The outer end, *a*, of the spindle is screw-threaded, and the plug C is tapped correspondingly, so as to be screwed onto the spindle E, and it may be screwed on so as to draw the plug down tight upon its seat; but ordinarily, and for use as an extinguisher, when the plug is upon its seat the head *e* lies away from the bridge D, as seen in Fig. 1, and the plug is secured in its seat by solder or other connection fusible at a low degree of heat. Thus arranged, when the plug is liberated by heat it is quickly thrown outward by the pressure of water thereon, as seen in broken lines, Fig. 1, until the head of the spindle comes against the bridge. There the plug will be arrested and stand, leaving a thin opening entirely around it, through which the water will freely pass—the space so thin that the water will quickly break into spray and be thrown in all directions, so that no perforated distributor is necessarily required. After the plug has been liberated and the fire extinguished, the plug may be forced to its seat by screwing it onto the spindle E until it bears hard against its seat and shuts off the further flow of water. There it will remain until it may be conveniently soldered and arranged as before.

The spindle should be made of irregular shape, as seen in Fig. 2, or constructed so that the plug may be turned without turning the spindle, in order that the plug may be adjusted thereon relatively to its seat either to bring it to a hard bearing thereon, to close the passage, or to adjust the thickness of the opening. Thus the plug will not be so far displaced as by any possibility to be lost or destroyed.

If desired, a perforated distributor may be applied outside the plug, into which the water will flow and be distributed in the usual manner; but such perforated distributor is unnecessary.

We claim—

1. The nozzle A, constructed with a conical seat, combined with the plug C, constructed to fit said seat, and secured in said seat by a

fusible connection, and the headed spindle E, attached to said plug and supported in the nozzle to arrest the outward or opening movement of the plug, substantially as described.

- 5 2. The combination of the nozzle A, constructed with the conical seat, combined with the plug C, constructed to fit said seat, and secured therein by a fusible connection with the headed spindle E, supported in the said noz-

zle, and connected to the said plug by a screw thread, whereby said plug may be drawn upon its seat, substantially as described.

ALBERT M. BURRITT.
LEWIS D. CASTLE.

Witnesses:

A. C. BURRITT,
D. F. WEBSTER.