

(No Model.)

C. W. TALCOTT.  
FIRE EXTINGUISHER.

No. 255,047.

Patented Mar. 14, 1882.

Fig. 1.

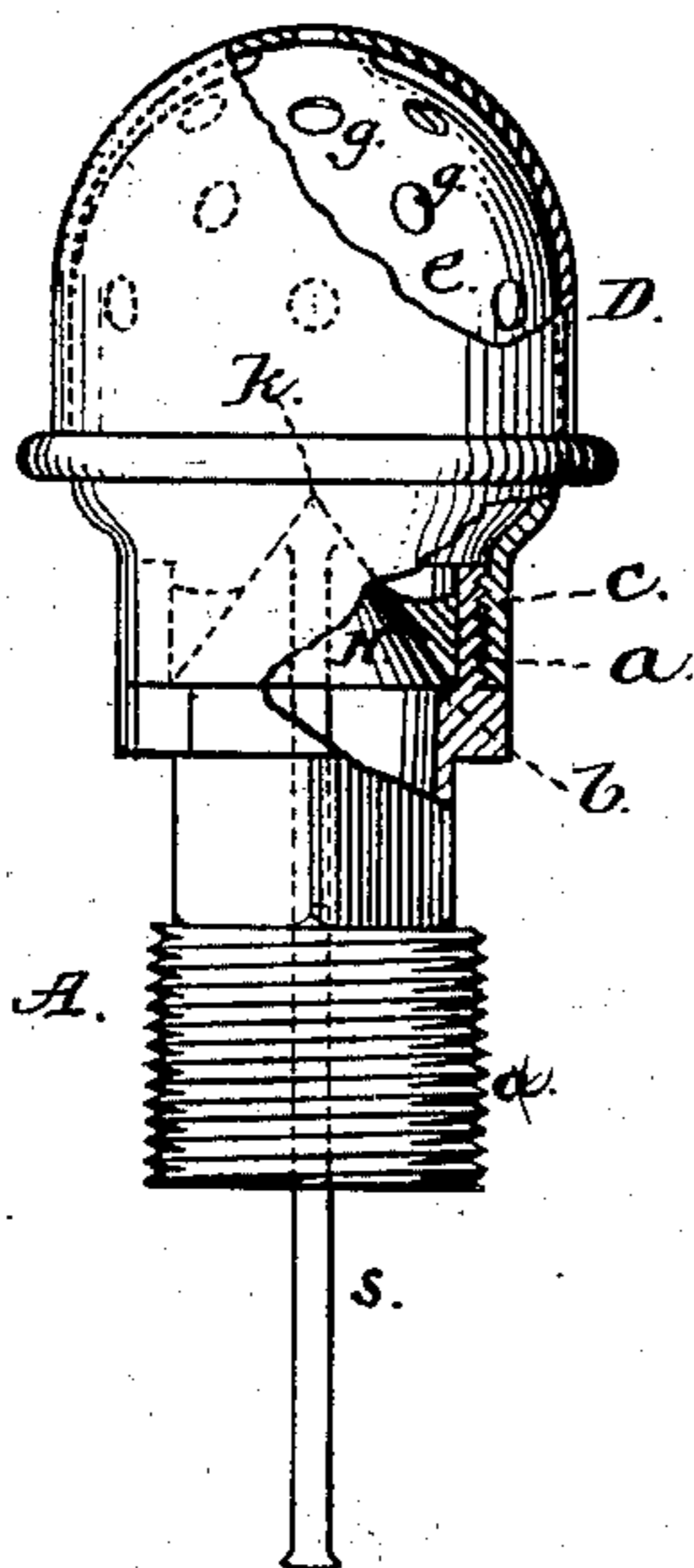
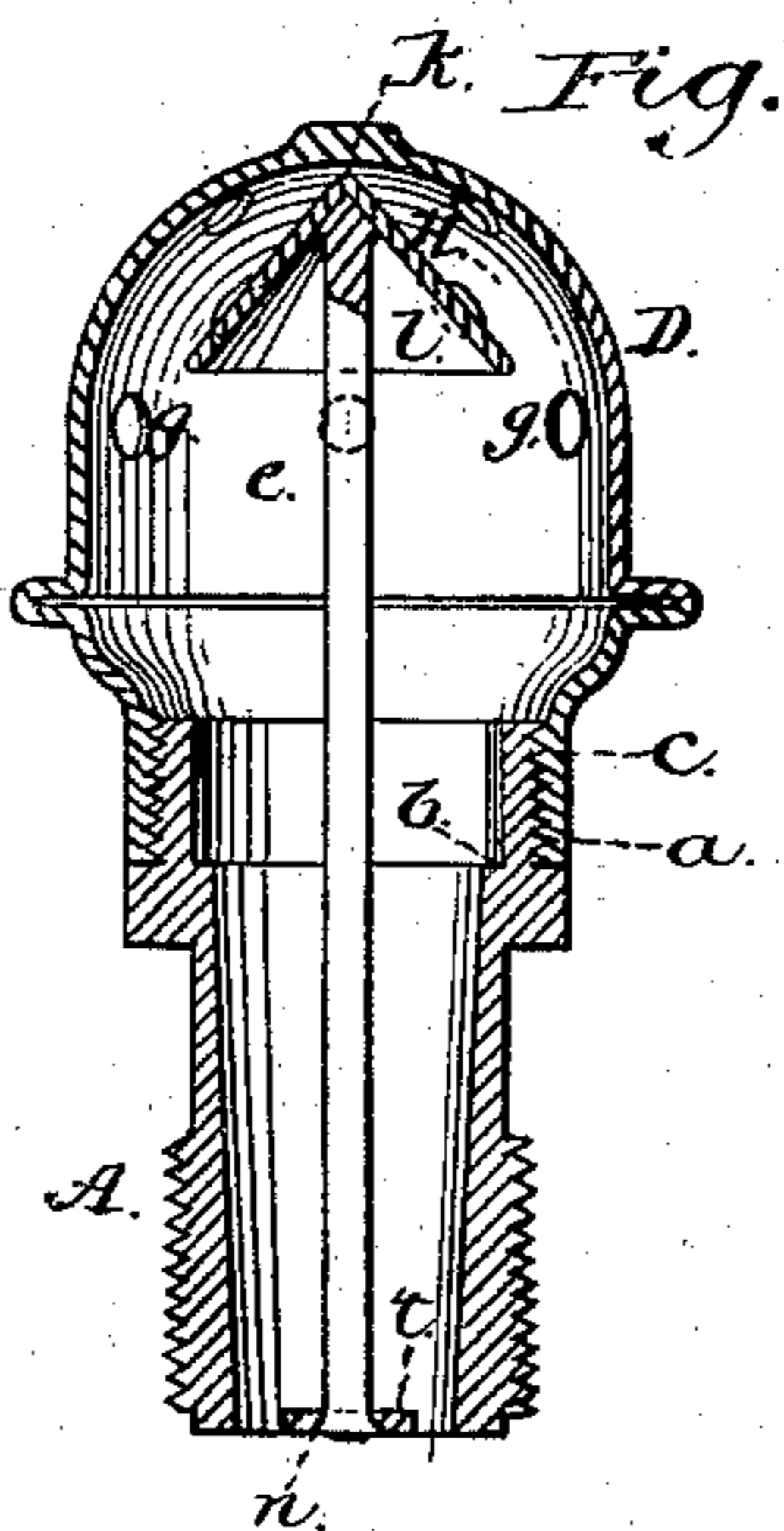


Fig. 2.



WITNESSES

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# UNITED STATES PATENT OFFICE.

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## FIRE-EXTINGUISHER.

SPECIFICATION forming part of Letters Patent No. 255,047, dated March 14, 1882.

Application filed December 15, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES W. TALCOTT, a citizen of the United States, resident at Woonsocket, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Fire-Extinguishers or Automatic Sprinklers; 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, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification, in which—

Figure 1 is a side elevation, partly broken away; and Fig. 2 is a sectional view.

This invention has relation to automatic sprinklers for the purpose of extinguishing fire; and it consists in the construction and novel arrangement of the cone-shaped concave plug and its holding stem, said plug being seated on an annular bearing in the end of the water-pipe with its concavity toward the water-head, its stem passing through a perforated cross-bar, in rear of which it is provided with a head or stop, the end of the pipe being provided with the usual perforated bulb or enlargement, all as hereinafter set forth, and particularly pointed out in the claim appended:

In the accompanying drawings, the letter A designates the end of a water-pipe, which is designed to project a little within the wall of an apartment or building, and is formed with an exterior thread, *a*, and an interior annular shoulder or bearing, *b*.

On the thread of the pipe is placed the threaded neck *c* of the perforated sprinkling bulb or cap D, which projects somewhat in front of the end of the pipe, forming an enlarged chamber, *e*, into which the water rushes and from which it is expelled in jets through the perforations *g* when the plug in the water-pipe is set free by the fusing of the metallic fastening, whereby it is secured to the bearing *b* in said pipe. It is not new to provide a water-pipe with a plug designed to be set free in this manner, and it is common to use the perforated bulb or sprinkler in connection therewith.

The improvements now to be described relate especially to the devices whereby the plug is conducted toward the outer center of the distributor or bulb, in position to arrest sedi-

ment or coarse matter which would not readily pass through the holes of the bulb, and whereby the forward motion of the water is broken, so that it is turned rather backward and toward the burning surfaces.

H indicates the plug, which is cone-shaped, as shown, its exterior or outward surface rising to a point, *k*, which is not apt to close any of the perforations of the distributor, so that its full sprinkling effect will be attained. The inner or rear face of the plug is concave, as indicated at *l*, and the plug is provided with a stem, *s*, which is centrally and rigidly attached to its inner face, and extends into the water-pipe through a perforated bearing, *n*, in a cross-bar, *t*, which is arranged in the rear portion of the wall-section of said pipe and in rear of the annular bearing *b* therein.

The action is as follows: When the fire occurs the fusible metal whereby the margin of the plug is connected to the bearing *b* is melted, and the plug is carried forward, guided centrally by its stem into the perforated bulb and toward its outer center, which portion is usually made without perforations, the object being to throw the water outward and downward or backward as much as possible to increase the effect on the burning surfaces. This is also enhanced by the action of the concave rear face of the plug, which is designed to arrest sediment and matter which may be in the pipe and prevent it from clogging any of the holes of the distributing-cap, and to turn the flow of water backward within the bulb-chamber. The outer face of the plug, being pointed and directed by the guide-stem, will not obstruct any of the perforations of the cap, so that its full sprinkling effect will be attained.

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

In an automatic fire-extinguishing nozzle, the pointed cone-shaped plug H, having the concave rear face, *l*, and the guide-stem *s*, rigidly attached thereto, these parts being adapted to operate in connection with the pipe A, having the annular bearing *b*, and the perforated cross-bar *t*, and the perforated bulb or cap D, substantially as specified.

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

Witnesses: CHARLES W. TALCOTT.  
GEORGE A. WILBER,  
P. C. MASI.