R. PATTIN.

FIRE EXTINGUISHING NOZZLE.

APPLICATION FILED MAR. 22, 1911.

1,017,585. Patented Feb. 13, 1912.

Fig. 1.

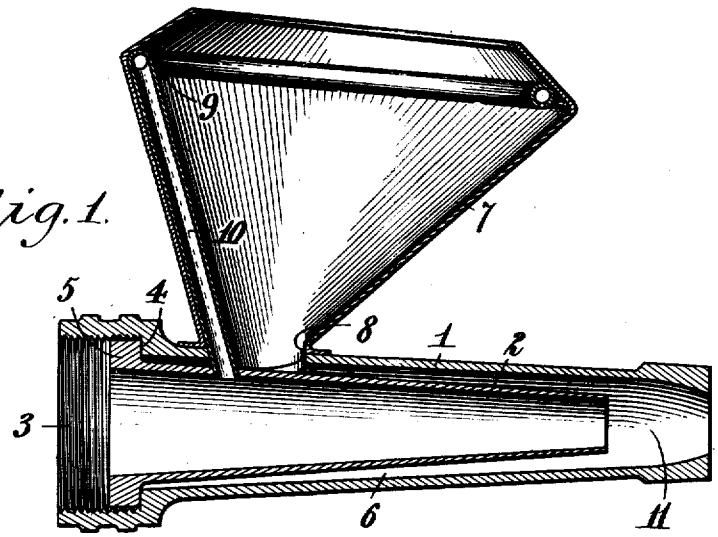
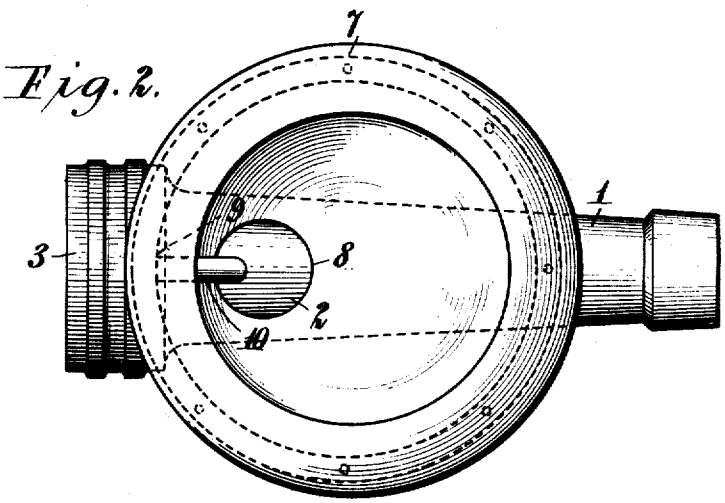


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

RICHARD PATTIN, OF BROOKLINE, MASSACHUSETTS.

FIRE-EXTINGUISHING NOZZLE.

1,017,585. Specification of Letters Patent. Patented Feb. 13, 1912.

Application filed March 22, 1911. Serial No. 616,123.

To all whom it may concern:

Be it known that I, RICHARD PATTIN, a citizen of the United States, residing at Brookline, in the county of Norfolk and State of Massachusetts, have invented new and useful Improvements in Fire-Extinguishing Nozzles, of which the following is a specification.

This invention relates to fire extinguishing nozzles, and has for an object to provide a nozzle adapted for the reception of a fire extinguishing chemical which is automatically forced from the nozzle on the effective discharge of the water.

In the drawing, forming a portion of this specification and in which like numerals of reference indicate similar parts in the several views:—Figure 1 is a longitudinal section through my improved nozzle. Fig. 2 is a plan view thereof.

My improved nozzle comprises an outer member 1 and an inner member 2, the former having a threaded socket 3 therein and being formed immediately at one end of the socket to provide a shoulder 4 against which the flanged end 5 of the inner member 2 is suitably secured in any well known manner. The members 1 and 2 are each substantially conical in configuration, the walls of the members being flared outwardly so that the reduced end of each member is outermost, thereby providing in each member at its outer end a restricted discharge passage. The members 1 and 2 are spaced from each other throughout so as to form a chemical discharging space 6 entirely around the inner member 2.

A hopper 7 is supported by the outer member 1, the reduced end 8 of the hopper fitted to and disposed above the passage in the member 1 and arranged therein so that it opens directly into the chemical discharging space 6. The hopper is designed for the reception of a powdered fire extinguishing chemical, preferably salt, and in view thereof, I provide the hopper 7 with a perforated sprayer 9 having a leg portion 10 which extends downwardly at one side of the hopper within the same and which opens directly into the inner member 2 substantially at the inner end of the nozzle.

The outer end of the member 1 extends considerably beyond the outer reduced end of the inner member 2 so that when the water is discharged from the small end of the inner member its passage in the space 11 between the ends of the inner and outer members 1 and 2 will operate to form a suction in the space 6, thereby drawing elements of the fire extinguishing chemical from the hopper to the space 6, from which latter the chemical will be mixed with the water and discharged therewith from the outer end of the nozzle. It will of course be understood that by providing the inner member 2 with a restricted outer passage and a relatively large inner passage the nozzle will operate on the discharge of water therefrom to cause a quantity of the water to be discharged into the perforated sprayer 9 by way of the leg 10. In this manner the salts or powdered fire extinguishing chemicals will be saturated with the water and the water itself will be free to percolate through the salt and discharged directly into the space 6 for the purpose hereinbefore specified.

While the nozzle described herein is particularly intended to be used where it is desired to discharge the chemical with the water, it will of course be understood that I do not limit myself to such use, as it is obvious that the nozzle can be used as an ordinary nozzle without discharging a chemical solution with the water.

I claim:—

1. A fire extinguishing nozzle comprising inner and outer spaced tubes, each of said tubes being formed with a relatively large inner portion and a restricted outer portion, a hopper for a powdered fire extinguishing chemical supported by the outer tube and opening directly thereinto, and a spraying pipe carried by the hopper and located therewithin and having a leg portion extending downwardly within the hopper and into the inner tube.

2. A fire extinguishing nozzle comprising inner and outer tubes each being of an outwardly decreasing diameter, the said tubes being spaced apart, and the outer tube being extended in advance of the outer end of the inner tube, a hopper supported by the outer tube, and a spraying member carried by the hopper and having a water intake end extending into the inner tube midway between the ends thereof and adapted to receive water on the flow of the same through the inner tube.

3. A fire extinguishing nozzle comprising inner and outer tubes, the said tubes each being of an outwardly decreasing diameter,

a hopper carried by the outer tube, the said tubes being spaced from each other to form an intervening chemical receiving space for receiving the chemical from the hopper, the said hopper being in open communication with said space, and a sprayer carried by the hopper and having an intake portion extending downwardly into the inner tube and disposed adjacent to the large end of the said tube so that a part of the water under pressure when discharging through the tube will be directed to the said sprayer.

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

RICHARD PATTIN.

Witnesses:

EDWARD W. BAKER,

ABBIE M. DUNBAR.