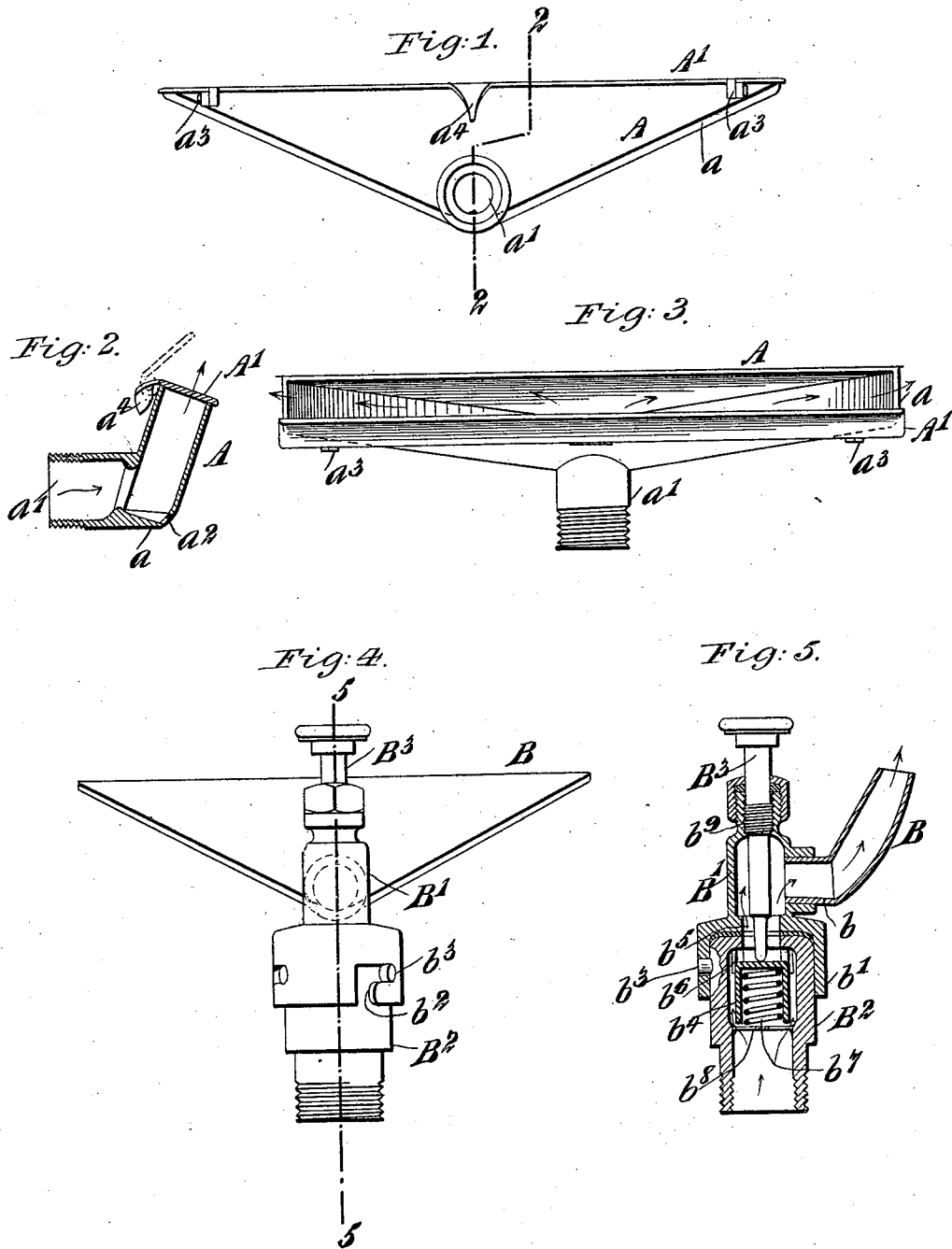


(No Model.)

J. G. HAGMANN.
FIRE EXTINGUISHER NOZZLE.

No. 562,295.

Patented June 16, 1896.



WITNESSES:

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JOHN GEORGE HAGMANN, OF LA CROSSE, WISCONSIN.

FIRE-EXTINGUISHER NOZZLE.

SPECIFICATION forming part of Letters Patent No. 562,295, dated June 16, 1896.

Application filed December 30, 1895. Serial No. 573,771. (No model.)

To all whom it may concern:

Be it known that I, JOHN GEORGE HAGMANN, of La Crosse, in the county of La Crosse and State of Wisconsin, have invented a new and Improved Fire-Extinguisher Nozzle, of which the following is a full, clear, and exact description.

This invention relates to nozzles for the discharge and spread of water in the case of fire, and it is designed to be secured to the outer side of a building or to the inner side thereof in any room or rooms, and it may also be adapted for use in connection with the nozzle of an ordinary fire-hose.

I will describe a nozzle embodying my invention, and then point out the novel features in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of a nozzle embodying my invention. Fig. 2 is a section thereof on the line 2 2 of Fig. 1. Fig. 3 is a top plan view thereof, showing the cover open. Fig. 4 is a side elevation of a modification, and Fig. 5 is a section on the line 5 5 of Fig. 4.

Referring first to the example of my improvement shown in Figs. 1, 2 and 3, A designates a nozzle in the form of an elongated trough or box, the bottom wall *a* of which is inclined downward from each end of the nozzle to the center thereof, and at the bottom of this central portion is a water-inlet *a'*, which is adapted to engage with a stand-pipe secured to a building. Through the bottom of the front wall of the nozzle and in line with the inlet *a'*, is a small outlet *a''*, which will allow the discharge of water after the device shall have been used, and thus prevent the standing and freezing of water therein.

The nozzle may be provided with a cover *A'*, which is hinged to lugs *a'''*, extended rearward from each wall of the nozzle. This cover is designed to prevent the entrance of dirt when the device is used on the outer side of a building. In case of fire, however, when the water is turned on, it will force the cover open to allow the escape of water. A curved finger *a''''* is extended rearward from the central portion of the cover and is adapted to engage with the rear wall of the device, to support the

cover *A'* in the position indicated in dotted lines in Fig. 2, whereby when the water is cut off the cover *A'* will automatically fall to its closing position. It will be seen that the nozzle is inclined or extended at an angle forward from the plane of the inlet *a'*.

The device just described is designed to be affixed to the outer side of a building, near or upon the cornice, and have connection with a supply-pipe provided with a cut-off at its lower portion, or in a convenient place to be reached for turning water on or off. Of course any desired number of the nozzles may be employed, the object being to discharge the water in sheets that will spread out over the surface of a building or over plate-glass windows, for protection against fire in an adjacent building. The devices, however, may be placed against the side walls of the interior of a building, and in these instances each nozzle may be attached to an independent feed-pipe, or they may be attached in groups to discharge in different directions.

The device as shown in Figs. 4 and 5 is designed to be attached to the nozzle of an ordinary fire-hose, so that a pipeman when in a burning building may cause a stream of water to be discharged in a wide sheet, which will in a measure protect him from the heat of the flames, and at the same time the discharged water serves to extinguish the flames. This example of my improvement comprises a nozzle *B*, similar to the one above described, excepting that the front wall is curved transversely outward, as shown in Fig. 5.

The inlet portion *b* of the nozzle *B* communicates with a chamber within a cap-piece *B'*, having an enlarged portion *b'* at its lower end provided with bayonet-slots *b''*, adapted to engage with lugs *b'''*, extended from a valve-casing *B''*, to securely lock the parts together. Within the valve-casing *B''* is a valve *b''''*, here shown in the form of a thimble or cup adapted to close an opening *b'''''* in the end of the valve-casing, which opening communicates with an opening entering the chamber in the cap-piece *B'*.

The valve *b''''* moves between guide-pieces *b''''''*, arranged within the valve-casing *B''*, and at a suitable distance from its side wall to allow the passage of the water between the valve and the said side wall of the valve-casing

when said valve is in its lowermost position. A spring b^7 , engaging at its lower end with a spider b^8 , arranged within the valve-casing, and at its upper end engaging with the valve b^4 , serves to hold said valve against its seat to close the opening b^5 .

As a means for opening the valve b^4 , I employ a pin B^3 , which has a screw-threaded portion b^9 , engaging an interior thread in the upper neck portion of the cap-piece B' , and the lower end of this pin B^3 engages with the top of the valve b^4 , so that by screwing the pin inward the valve may be forced away from its seat, and of course when the pin is moved in the opposite direction the spring b^7 will return the valve to its seat and thereby cut off the flow of water.

This nozzle as described may be carried in the pocket of a fireman, and therefore ready for instant use, and in this example the nozzle B , it will be seen, is inclined outward from the cap-piece B' , so that when the device is held in a vertical position a sheet of water will be thrown outward and forward from the fireman.

It is obvious that the device embodying my invention may be employed for interior protection in connection with a thermostat, and when so employed the nozzles should be arranged in groups of three or four, back to back, so as to throw water in all directions horizontally.

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

1. A nozzle for a fire-extinguisher, substantially trough-shaped and having its bottom wall inclined from the ends downward to the central portion, and an inlet in the lower portion thereof, the said nozzle being arranged at an angle to the inlet, and having a drain through the lower portion of its front wall, substantially as specified.

2. A nozzle for a fire-extinguisher, of a substantially elongated trough shape and having its bottom wall inclined from the ends downward, an inlet leading into the lowest portion of the nozzle, a drain through the lower portion of the nozzle and a hinged cover on the nozzle, adapted to be opened by water-pressure and to close automatically on relief of the water-pressure, substantially as specified.

3. A nozzle for a fire-extinguisher, comprising a substantially elongated trough-shaped nozzle portion having an inclined bottom wall, a cap-piece having a chamber communicating with the interior of said nozzle, the said nozzle being inclined upward and outward from the cap-piece a valve-casing adapted for engagement with a hose, a valve in said casing, means for detachably locking the cap-piece to the valve-casing, a push-pin for moving the valve from its seat, guide-pieces for the valve on the inner side of the casing, a spider in the casing, and a spring resting on said spider and engaging the valve substantially as specified.

JOHN GEORGE HAGMANN.

Witnesses:

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