(No Model.)

F. GRINNELL.

FIRE EXTINGUISHER.

No. 250,912. Patented Dec. 13, 1881.

Fig. 1.

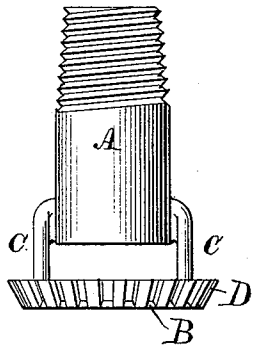


Fig. 3.

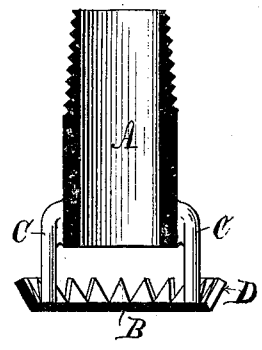


Fig. 2.

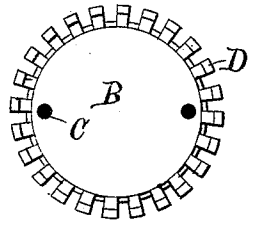


Fig. 4.

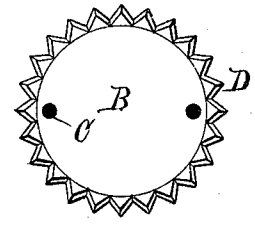
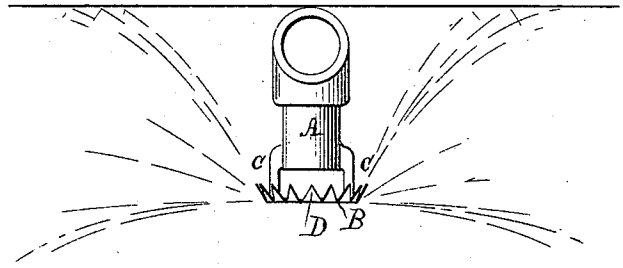


Fig. 5.



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UNITED STATES PATENT OFFICE.

FREDERICK GRINNELL, OF PROVIDENCE, RHODE ISLAND.

FIRE-EXTINGUISHER.

SPECIFICATION forming part of Letters Patent No. 250,912, dated December 13, 1881.

Application filed October 17, 1881. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK GRINNELL, of the city and county of Providence, State of Rhode Island, have invented a new and useful Improvement in Fire-Extinguishers; and I hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

This invention has reference to an improvement in the construction of the discharge-nozzle connected with a system of pipes placed in a building for the purpose of extinguishing fire.

The invention consists in the peculiar construction of the nozzle, in which a flat disk surrounded with a serrated edge is secured in front of the discharge-opening, as will be more fully set forth hereinafter.

Figure 1 is a view of a discharge-nozzle provided with a disk having a serrated or slotted rim. Fig. 2 is a plan view of the disk shown in Fig. 1. Fig. 3 is a sectional view of a discharge-nozzle provided with a disk having a serrated or saw-tooth-edged rim. Fig. 4 is a plan view of the disk shown in Fig. 3. Fig. 5 is an end view of a distributing-pipe, showing the discharge-nozzle secured in a pendent position from the same, and also the distribution of the water caused by the serrated disk.

In the drawings, A is a pipe-nipple provided with a screw-thread, so that it can be screwed into a pipe-fitting and form the discharge-nozzle.

B is a disk secured to the nipple A by the studs C C.

D is a beveled serrated rim, having a saw-toothed, a slotted, or other irregular edge, by means of which a portion of the discharged water is thrown upward and the rest distributed laterally.

The object of the invention is to so construct the discharge-nozzle that the ceiling of a room will be thoroughly wet by the discharge-water and the water cut up into spray without the use of small perforations and without the liability of clogging the discharge-opening with impurities contained in the pipes or in the water.

By the use of the disk B and serrated rim the water is evenly distributed by the impact of the water on the disk and the deflection of a portion of the water by the serrated rim. As the openings are large, any impurities contained in the water will be washed out without interfering with the operations of the device.

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

1. The combination, with the nozzle A, of the disk B, provided with the serrated rim D.

2. A fire-extinguisher consisting of a pendent discharge-nozzle having a flat disk provided with a serrated rim secured below the nozzle, as described.

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