L. POH & C. SHOOP.

HOSE-NOZZLES.

No. 195,643. Patented Sept. 25, 1877.

Fig. 1

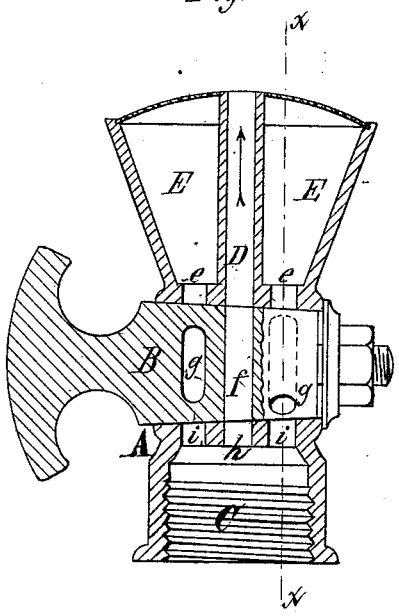


Fig. 2

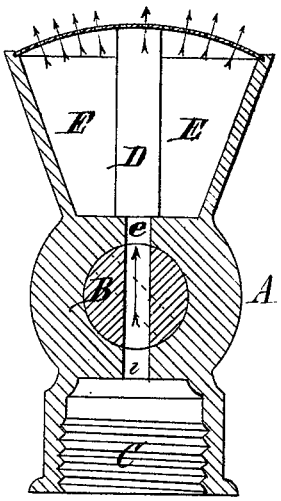
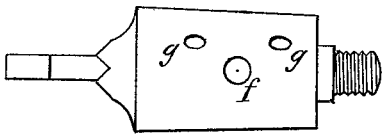


Fig. 3.



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UNITED STATES PATENT OFFICE.

LOUIS POH AND CHARLES SHOOP, OF BUFFALO, NEW YORK.

IMPROVEMENT IN HOSE-NOZZLES.

Specification forming part of Letters Patent No. **195,643**, dated September 25, 1877; application filed June 16, 1877.

To all whom it may concern:

Be it known that we, LOUIS POH and CHARLES SHOOP, both of the city of Buffalo, in the county of Erie and State of New York, have invented certain Improvements in Hose-Nozzles, which improvements are fully set forth in the following specification, reference being had to the accompanying drawings.

Our invention relates to that class of hose-nozzles which are employed with garden-hose and street-washers, and which combine a plain jet and a rose-sprinkler, through either of which the water may be discharged by properly turning the plug which controls the flow of water through the nozzle.

Our invention consists of the particular construction of the hose-nozzle, so that the water will pass through the same in a straight unbroken current, whether the jet or sprinkler is used, as will be hereinafter more fully set forth.

In the accompanying drawing, Figure 1 is a sectional elevation of our improved hose-nozzle. Fig. 2 is a sectional elevation at right angles to Fig. 1 through one of the water-passages leading to the sprinkler, line *x x*, Fig. 1. Fig. 3 is a plan view of the plug.

Like letters of reference refer to like parts in each of the figures.

A represents the body of the nozzle, provided with a conical seat for the reception of a solid plug, B. C is the induction-pipe of the nozzle, provided with an internal screw-thread for securing the nozzle to the hose. D is the central discharge-pipe, through which the plain jet or stream is thrown, and E the chamber of the rose-sprinkler surrounding the discharge-pipe D, which latter forms an axial continuation of the induction-pipe C. The chamber E communicates with the plug-seat by two openings, *e e*, arranged on opposite sides of the central pipe D in the longitudinal direction of the plug, as clearly shown in Figs. 1 and 2. The plug B is provided with a central water-passage, *f*, corresponding in size with the bore of the central discharge-pipe D, and two side water-passages, *g g*, arranged on opposite sides of the central passage *f*, so as to register with the openings *e e* of the sprinkler-chamber. The side water-passages *g g* are arranged at an angle, preferably, of about forty-five degrees, with the central water-passage *f*. The induction-pipe C of the nozzle is provided with a central opening, *h*, and two side openings, *i i*, corresponding in size and arrangement with the water-passages *f* and *g g* of the plug.

Upon placing the plug B so that its central water-passage *f* coincides with the opening *h* and pipe D, as shown in Fig. 1, a plain jet will be thrown from the nozzle, the coincidence of the water-passages *g g* and the openings *e e* of the sprinkler-chamber and *i i* of the induction-pipe being broken. By turning the plug B, so as to cause its side water-passages *g g* to register with the openings *e e* and *i i*, as shown in Fig. 2, the water is directed into the sprinkler-chamber, while the central discharge-pipe D is closed. Upon continuing the turning of the plug in the same direction the water is entirely shut off from the nozzle.

It will be seen that in both cases, whether the jet or sprinkler is used, the water is conducted to the discharge-orifice through straight water-ways of uniform dimensions, thereby enabling the nozzle to throw a greater quantity of water to a greater distance than nozzles in which the water-ways are curved or broken and of uneven size.

When the side passages *g g* of the plug are arranged at an angle of forty-five degrees to the central passage *f*, the three movements of the plug, including the jet, sprinkler, and shut-off, are contained within a quarter-turn of the plug, making the manipulation of our improved nozzle very easy and convenient.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

The combination, with the induction-pipe C, provided with openings *h* and *i i*, and central discharge-pipe D, and surrounding sprinkler-chamber E, provided with openings *e e*, of the solid plug B, provided with a central water-passage, *f*, and side passages *g g*, arranged at an angle therewith, so as to form straight communications, respectively, between the openings *h* and *i i* and D and *e e*, as and for the purpose hereinbefore set forth.

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