

G. N. RAYMOND & G. B. PERKINS.
Hose-Nozzle.

No. 208,122.

Patented Sept. 17, 1878.

fig 1

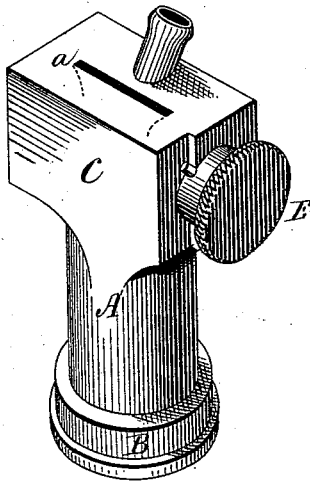


fig 2

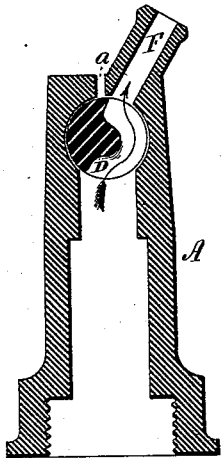
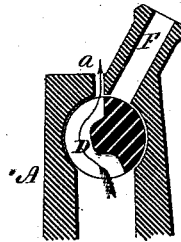


fig 3



Witnesses

J. H. Shumway
H. A. Peters

Geo. N. Raymond
& *Geo. B. Perkins*
Inventors

By Atty.

Wm. O. Emle

UNITED STATES PATENT OFFICE.

GEORGE N. RAYMOND AND GEORGE B. PERKINS, OF BRIDGEPORT, CONN.

IMPROVEMENT IN HOSE-NOZZLES.

Specification forming part of Letters Patent No. **208,122**, dated September 17, 1878; application filed March 4, 1878.

To all whom it may concern:

Be it known that we, GEO. N. RAYMOND and GEO. B. PERKINS, of Bridgeport, in the county of Fairfield and State of Connecticut, have invented a new Improvement in Hose-
Nozzles; and we do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, which said drawings constitute part of this specification, and represent, in—

Figure 1, perspective view; Figs. 2 and 3, vertical sections differently adjusted.

This invention relates to an improvement in hose-nozzles, the object being to give to the nozzle a variable stream, either a spray or solid stream. In nozzles for this purpose, as heretofore constructed, the spray has been produced either by caps with numerous perforations or a thin circular slit, which would discharge a tubular thin sheet, breaking into a spray. In both cases the spray is thrown in all directions—up, down, and to the right and left.

The object of this invention is to distribute the spray in a plane instead of tubular form; and it consists in the combination and arrangement of the plug and discharge, as fully hereinafter described, and more particularly recited in the claims.

A is a tube, arranged for connection to the pipe or hose by a collar, B, in the usual manner. This tube terminates in a head, C, in which is a slit, *a*, at right angles to the axis of the tube. Through the head and parallel with this slit is a transverse plug, D, made adjustable from the outside by a suitable head, E. A passage is cut through the plug, so that the water flows to the passage *a*, as indicated by the arrows in Fig. 3. By turning the plug toward the slit the passage may be made greater or less, and the stream discharged ac-

ordingly, thicker or thinner. The stream spreads to the right and left because of the expansion of the slit in the same direction (indicated by broken lines, Fig. 1,) and breaks into spray very soon after leaving the nozzle, and the spray is thrown in a plane only, so that the water may be distributed much better than where it is thrown in a tubular or circular form.

By providing this adjustment for the slit it enables the washing or cleaning of foreign substances that pass therein, which cannot be done from the usual perforations. In those sprinklers such foreign substance stops the flow, and it cannot be started without removing and freeing it from the obstruction, whereas this may be cleansed at any time while in use by simply opening the discharge to a greater extent.

Combined in this nozzle is a passage, F, arranged relatively to the slit and plug as shown, so that when the position of the plug is reversed, as seen in Fig. 2, the discharge is in the passage F, and slit cut off.

If it is desirable to cut off the water entirely, it will be seen that by turning the plug till the solid surface covers both openings that object will be accomplished.

We do not broadly claim a hose-nozzle convertible from solid stream to spray, as such, we are aware, is not new; but

What we do claim as new, and desire to secure by Letters Patent, is—

1. The combination, in a hose-nozzle, of the slit *a* and transverse adjustable plug D, substantially as described.

2. The combination, in a hose-nozzle, of the slit *a*, solid discharge F, and transverse plug D, substantially as described.

GEO. N. RAYMOND.
GEO. B. PERKINS.

Witnesses:

MICHAEL C. MCGUINNESS,
ALFRED B. BEERS.