C. H. MILLER.

Water-Sprinkling Nozzle.

No. 165,111. Patented June 29, 1875.

Fig. 1.

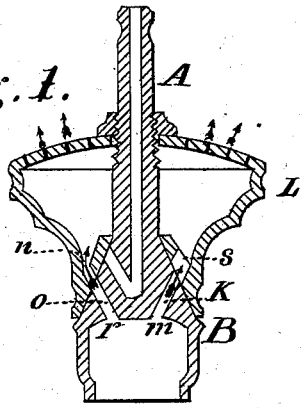


Fig. 2.

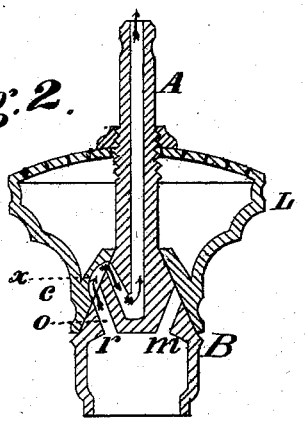


Fig. 3.

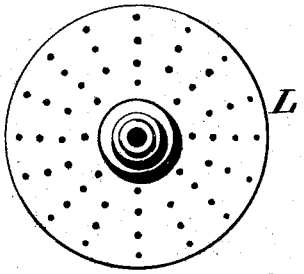


Fig. 4.

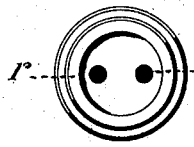


Fig. 5.

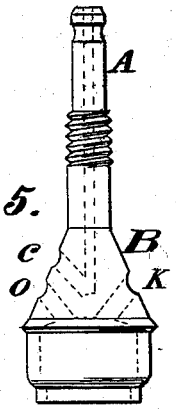
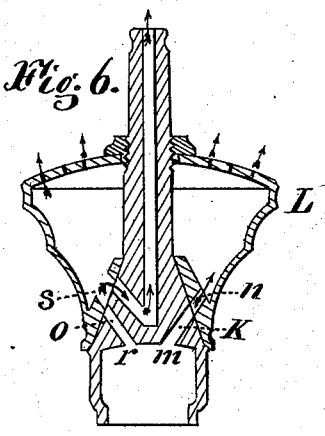


Fig. 6.



Witnesses

A. Pinner.

Joseph Lefales

Inventor.

Charles H. Miller

UNITED STATES PATENT OFFICE.

CHARLES H. MILLER, OF BUFFALO, NEW YORK.

IMPROVEMENT IN WATER-SPRINKLING NOZZLES.

Specification forming part of Letters Patent No. **165,111**, dated June 29, 1875; application filed June 6, 1874.

To all whom it may concern:

Be it known that I, CHARLES H. MILLER, of the city of Buffalo, in the county of Erie and State of New York, have invented a new and useful Improvement in Water-Sprinkler Nozzles; and I do hereby declare that the following is a full and exact description of the same, reference being had to the annexed drawings making a part of this specification.

This invention relates more particularly to nozzles of pipes attached to garden-hose or street-sprinklers; and the invention consists in a conducting-tube, a center, and a movable closely-fitting outer cover for said conducting-tube and center, said center having a series of holes or openings, in combination with corresponding holes or openings in the movable outer cover, which, on being turned, allows a single jet of water, or fine spray, or a jet and spray combined, to issue, as hereinafter described.

In the accompanying drawing, letters of like name and kind refer to like parts in each of the figures.

Figure 1 is a vertical section, showing the conducting-tube, the center, and the movable closely-fitting outer cover of said tube and center, and the position of the center and movable outer cover when set or turned for sprinkling. Fig. 2 shows the position of the same when set or turned for a jet. Fig. 3 is the perforated top of the movable outer cover and the nut holding the same in position. Fig. 4 represents the inner view of the elongation of center, with openings or holes in the bottom of said center. Fig. 5 represents the conducting-tube, the center, and the openings or holes in said center. Fig. 6 is a vertical section, showing the conducting-tube, center, and the movable closely-fitting outer cover of said tube and center, and the position of the center and movable outer cover when set or turned to throw a jet and spray combined.

A represents the tube for throwing the jet; B, the center; *o*, *c*, and K, the openings or holes in said center; *r* and *m*, the openings or holes in the inner part of center, corresponding to openings or holes *o* and K on its outer surface; L, the movable outer cover, closely fitting the center B.

Placing the openings or holes *o* and K of center B respectively opposite to the openings or holes *n* and *s* in the movable outer cover L, as shown in Fig. 1, the water or fluid is excluded from tube A, enters the cavity in the upper part of the movable outer cover L, forces its way through the perforations in its top, and is thrown off as spray. The course of the water is indicated by the arrows in said Fig. 1.

Turning the movable outer cover L to the right until the opening or hole *o* in center is placed opposite to the cavity *x* in the movable outer cover L, the water or fluid enters through said opening or hole *o*, the cavity *x* of the movable outer cover L, and through opening or hole *c* in center, the tube A, and is thrown off as a jet only. The course of the water is indicated by the arrows in Fig. 2.

Turning the movable outer cover L to the right until the openings or holes K and *o* of center B are respectively placed opposite to the openings or holes *s* and *n* in the movable outer cover L, the water or fluid enters both tube A and the upper cavity of movable outer cover L, and is thrown off as spray and a jet combined. The course of the water is indicated by the arrows in Fig. 6.

Revolving the outer cover L to any intermediate position between the openings or holes in center B, an entire and complete shut-off of the water or fluid is effected from both tube A and cavity L in the outer cover, and the water or fluid is confined to the hose or pipe from which the tube and sprinkler receive their supply.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The center B, in combination with tube A, substantially as and for the purposes described.

2. The movable closely-fitting outer cover L for said center B and tube A, substantially as and for the purposes specified.

3. The combination of the openings or holes *c*, *o*, and K in the center B with the openings or holes *n* and *s* and the cavity *x* in the outer cover L, for the purposes described.

4. The movable outer cover L and center B as a shut-off, when arranged and combined substantially as described.

CHARLES H. MILLER.

Witnesses:

M. PINNER,

JOSEPH LESSLER.