

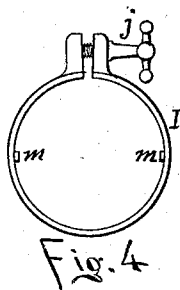
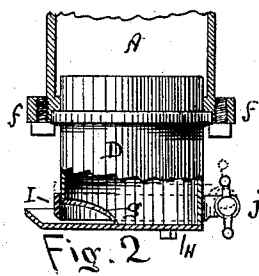
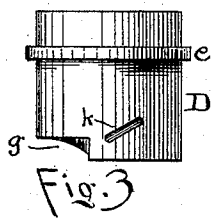
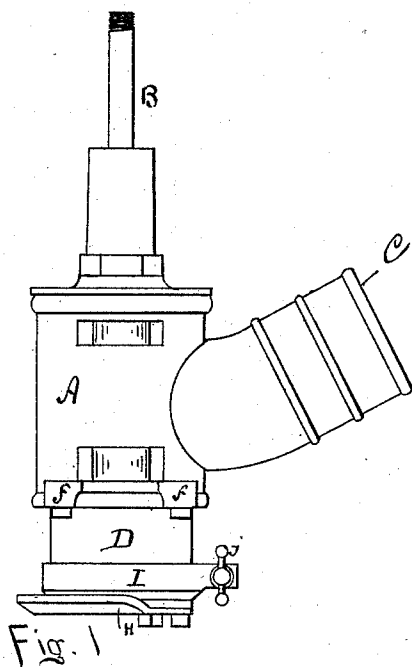
(No Model.)

C. M. COLLINS.

DEVICE FOR CONTROLLING THE WATER JETS OF STREET SPRINKLERS.

No. 476,187.

Patented May 31, 1892.



WITNESSES:

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UNITED STATES PATENT OFFICE.

CHARLES M. COLLINS, OF SOUTH BEND, INDIANA.

DEVICE FOR CONTROLLING THE WATER-JETS OF STREET-SPRINKLERS.

SPECIFICATION forming part of Letters Patent No. 476,187, dated May 31, 1892.

Application filed April 9, 1891. Serial No. 388,286. (No model.)

To all whom it may concern:

Be it known that I, CHARLES M. COLLINS, of South Bend, in St. Joseph county, in the State of Indiana, have invented new and useful Improvements in Devices for Controlling the Water-Jets of Street-Sprinklers; and I do hereby declare that the following is a full and accurate description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of my sprinkler. Fig. 2 is a vertical section of the same. Fig. 3 is a side elevation of the jet-chamber detached. Fig. 4 is a plan view of the jet-ring detached.

This improvement has particular reference to the sprinkler for which Letters Patent No. 381,986 were issued to me May 1, 1888, although it may be usefully applied to sprinklers which have very different internal structures from the one named. Therefore I do not design to limit myself to sprinklers of that particular structure.

The objects particularly aimed at in this improvement are the easy adjustment of the valve-ring which controls the thickness of the water-jet and the easy adjustment of the jet-chamber, so as to direct the jet more or less toward the side, as desired.

This invention is an improvement in that class of sprinklers for which Letters Patent No. 381,986 were granted to me May 1, 1888, wherein the quantity of issuing water was regulated by opening or closing different orifices by valves operated inside the jet-chamber.

The present invention regulates the quantity of issuing water by an exterior valve-ring, which covers more or less completely a single jet-opening. When it is desired to throw water laterally, as in sprinkling grass-plots adjacent to the curb, the jet-chamber is rotated to present the orifice toward the side.

A is the sprinkler-head, attached to the tank or tank-frame in some suitable and convenient way. It contains an interior valve for permitting or preventing the flow of water from the tank. B is the stem by means of which said valve may be moved.

C is the induction-pipe by means of which water is conducted from the tank to the head A. At the lower end of the head A the jet-

chamber D is attached by means of a flange *e* on said chamber and suitable collars or clips *f*, which reach under said flange and are securely bolted to the head, permitting the jet-chamber to be rotated in its attachment to said head for the purpose of adjusting the jet-orifice to the desired point. The jet-chamber D being below the valve, it is not necessary to make its attachment to said head water-tight; but it is made sufficiently so by good workmanship and the upward projection of said chamber within the head A. The jet-orifice is made by cutting a long notch *g* in the lower edge of the chamber D, and the whole lower end, with the exception of said notch, is closed by the plate H, which is securely bolted to the chamber D for that purpose. Around one side the edge of the bottom plate H is inclined upward to form a deflecting-lip in front of the jet-orifice *g*, against which the issuing water will strike and be deflected upward.

The regulating-valve is a ring I, which encircles the jet-chamber and slides up and down thereon to cover or expose the jet-orifice *g*. To fasten the ring I in place, a variety of well-known clamping devices may be employed; but I prefer to sever said ring and to provide a screw *j*, by means of which the severed ends may be drawn together or released, and thus said ring may be forcibly clamped upon the chamber D or released and loosened. To insure an upward or downward uniform movement of the ring I, I make oblique slots *k* on opposite sides of said chamber and provide the inner surface of the ring I with studs *m m* to fit into said slots. Therefore when the screw *j* is loosened and the ring I caused to rotate the studs *m m* compel said ring to move upward or downward on the chamber D, according to the direction of rotation, and thus the thickness and volume of the issuing stream are regulated and controlled.

Having described my invention, I claim—

1. In combination, in a valved sprinkler-head, a stationary part A, provided with a lateral branch for a water-inlet, an interior valve mechanism, and means for attaching said part A to the supporting-frame, a rotatable part D, constituting the water-distributing chamber and provided with a jet-orifice extending across one side of said chamber

transverse to its axis of rotation, and means whereby said part D may be locked in the position desired.

2. The jet-chamber D, provided with the slot-orifice *g*, combined with a movable valve-ring external to said chamber and means for causing said ring to ascend or descend while being rotated, for the purpose set forth.

3. The jet-chamber D, provided with the oblique slots *k*, substantially as set forth, combined with the valve-ring provided with studs

m, adapted to enter said slots and compel said ring to rise or fall, according to the direction of rotation.

4. The jet-chamber D, provided with orifice *g* and oblique slots *k*, combined with the ring I, provided with the studs *m m* and clamp-screw *j*, substantially as shown

CHARLES M. COLLINS.

Witnesses:

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