

No. 664,893.

Patented Jan. 1, 1901.

P. C. PETERSON.
SPRAYING NOZZLE.

(Application filed Mar. 31, 1900.)

(No Model.)

Fig. 1.

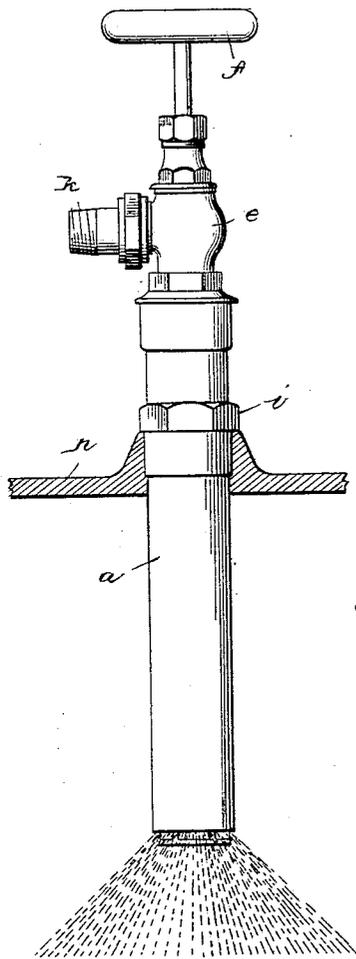


Fig. 2.

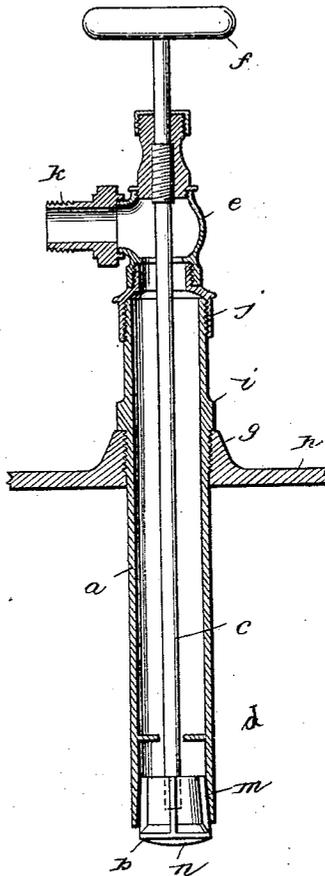


Fig. 3.

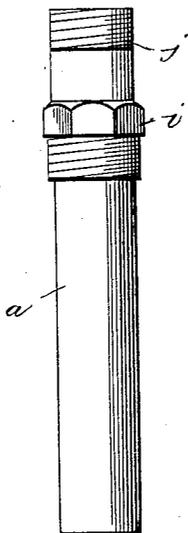


Fig. 5.

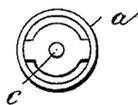
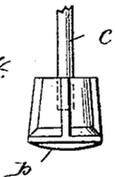


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

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SPRAYING-NOZZLE.

SPECIFICATION forming part of Letters Patent No. 664,893, dated January 1, 1901.

Application filed March 31, 1900. Serial No. 11,012. (No model.)

To all whom it may concern:

Be it known that I, PETER C. PETERSON, a citizen of the United States, residing at Ottawa, in the county of Franklin and State of Kansas, have invented a new and useful Spraying-Nozzle, of which the following is a specification.

My invention relates to spraying-nozzles, and has for its object to produce a nozzle which will be simple in construction and effective in operation and can be applied to any use to which the ordinary nozzle is adapted.

With this object in view my invention consists in the novel construction and arrangement of parts of the same, as will be hereinafter more fully set forth.

In the accompanying drawings, in which the same reference characters indicate corresponding parts in each of the views in which they occur, Figure 1 is a side elevation of my improved nozzle, showing it in operation. Fig. 2 is a longitudinal sectional view of the same. Fig. 3 is a side elevation of the tube portion of the nozzle. Fig. 4 is an elevation of the spraying or spreading portion of the nozzle, and Fig. 5 is a bottom end view of Fig. 3.

Referring more particularly to the drawings, *a* indicates the tube or main portion of my spraying-nozzle, which may be of any desirable size and length and can be formed from any suitable material. The intermediate portion of the tube near the upper end is provided with a screw-threaded enlargement *g*, by means of which it may be secured in position in a suitable support *h*. Directly above the screw-threaded portion there is a still greater enlargement *i*, which is formed angular in cross-section for the reception of a wrench in securing it in position, the shoulder formed by said enlargement forming an abutment for engaging with the support *h* and stopping its further rotation.

The upper end of the tube is screw-threaded, as shown at *j*, for the reception of an ordinary casing *e*, which is provided with a suitable coupling *k*, by means of which it may be connected with any suitable source of supply. A valve-stem *c* extends through the top of the casing *e* and longitudinally of the casing *a* and has its upper end provided with a valve-wheel *f* and the lower end with a plug or

spreader *b*. The intermediate portion of the stem, as at *c*, is screw-threaded to engage with the casing for the purpose of moving the spreader back and forth relatively to the mouth of the tube as the wheel and stem are rotated. Near the lower end the tube is provided internally with a suitable stem-guide *d*, which causes the spreader *b* to be centered within the mouth of the tube.

The spreader is preferably screwed to the lower end of the stem *c* and has a series of longitudinally-arranged ribs *m*, which fit snugly within the mouth of the tube *a* and hold the central portion of the spreader axially within the tube. The spreader is preferably formed slightly conical, and the end of the tube is slightly recessed or flared for the reception of the spreader. The head *n*, or outer end of the spreader, is preferably enlarged, so that when the spreader is drawn within the end of the tube the periphery of the head will approach or engage with the wall of the tube, and thereby permit a greater or less quantity of water to escape or to close it entirely.

As above described, it will be seen that my improved sprinkler can be secured in any desired position by simply inserting the tube through a suitable base and screwing it fast therein. Water being turned on from the source of supply, it will enter through the casing at the top and pass through the channels between the conical portion of the spreader and the end of the tube formed by the ribs or projecting portion *m* upon the sides of the spreader. By moving the head back and forth relatively to the mouth of the tube by means of the stem and valve-wheel the amount of water to be discharged by the sprinkler can be adjusted to any desired quantity, and after the adjustment has been made it will permanently remain that way until changed by the rotation of the wheel and valve-stem. By making the spreader removable from the stem and the stem removable from the casing the different parts may be easily separated and reassembled for the purpose of repair or alteration at any time and without requiring the services of a skilled mechanic. The ribs upon the sides of the spreader will hold the main portion of the spreader at a uniform distance from the end of the tube, and thereby cause an equal quan-

tity of fluid to be always delivered at all points around the mouth of the sprinkler.

Although I have shown what I consider to be the most desirable form of constructing my improved sprinkler, yet I reserve to myself the right to make such changes and alterations therein as will come within the scope of my invention.

While I have described my invention as pertaining to water, it is of course understood that it can be used for any kind of fluid.

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

1. In a sprinkling-nozzle, the combination, with a tube provided with means for supporting the same, an inlet at one end and a flared outlet at the other, a slightly-tapering spreader within the flared end, the exterior of which is provided with longitudinal ribs and the periphery of the head is even with

said ribs, and means for moving said spreader longitudinally within the flared portion, substantially as described.

2. In a sprinkling-nozzle, the combination, with a tube, one end of which is externally screw-threaded and the other end is flared outwardly and the intermediate portion is provided with an externally-screw-threaded enlargement and an angular enlargement adjacent thereto, of a casing on the screw-threaded end of the tube provided with an inlet, and an adjusting-rod through the casing and the tube, the top of which is provided with means for rotating it and the lower end is provided with a spreader in the flared portion of the tube.

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Witnesses:

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E. H. BECKER.