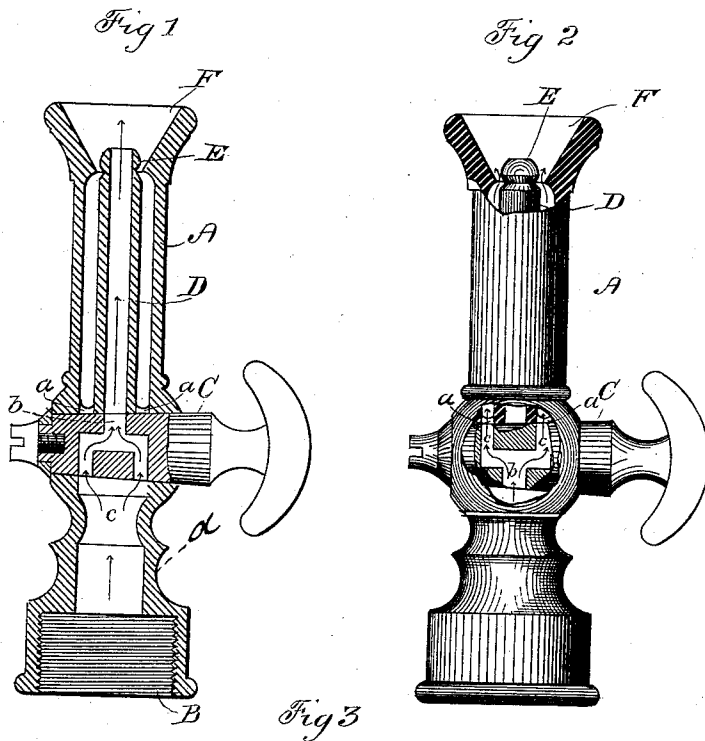


(No Model.)

E. R. TOMLINSON.  
JET AND SPRAY NOZZLE.

No. 336,602.

Patented Feb. 23, 1886.



Witnesses  
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# UNITED STATES PATENT OFFICE.

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## JET AND SPRAY NOZZLE.

SPECIFICATION forming part of Letters Patent No. 336,602, dated February 23, 1886.

Application filed August 14, 1885. Serial No. 174,393. (No model.)

To all whom it may concern:

Be it known that I, EDWIN R. TOMLINSON, a citizen of the United States, residing at Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Jet and Spray Nozzles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to certain novel and useful improvements in jet and spray nozzles, and has for its object to provide a device of this description by means of which the water passing through may be caused to issue either in a solid jet or in the form of diverging spray; and with these ends in view my invention consists in certain details of construction and combination of elements hereinafter fully explained, and then specifically designated by the claims.

In order that those skilled in the art to which my invention appertains may more fully understand its construction and operation, I will proceed to describe the same in detail, referring by letter to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a central longitudinal section of my device, showing it arranged to emit a solid jet; Fig. 2, a partial section similar to Fig. 1, but arranged to throw a spray; and Fig. 3, a transverse section through the plug-seat, the plug being removed.

Similar letters denote like parts in the several figures of the drawings.

A is the hollow body of the nozzle, screw-threaded at B for attachment to the hose, and provided with a tapered two-way plug, C, transverse to the length of the nozzle. Above this plug, and arranged axially with respect to the body of the nozzle, is the jet-pipe D. Near its outer end the jet-pipe is slightly contracted, so as to leave at its extremity a head, E, and the outward opening of the body of the nozzle is choked at the same transverse plane as the contracted portion of the jet-pipe, from which point it flares out-

ward to its extreme end F. Leading from the plug, and arranged one on either side of the entrance to the jet-pipe, are two openings, *a*, into the body of the nozzle outside of the jet-pipe. The tapered two-way plug is hollow, and has the way *b* upon one side central as to its length, and upon the other the ways *c*, each a little to one side of the center. Entrance of water from the lower end of the nozzle-body through the lower wall of the seat is effected by a way, *d*, as long as the two ways *c* and the distance between them. The plug is secured in the seat in any suitable manner, as by a washer and screw tapped into the end of the plug.

The operation of my improvement is as follows: When it is desired to project a jet of water, the plug is turned to the position seen in Fig. 1. The water will then in its passage enter the plug through ways *d* and *c*, and pass outward to the jet-pipe through the way *b*, which corresponds with the rear end of said pipe. The passage of the stream when diverging spray is desired (see Fig. 2) is through ways *d* and *b* into the plug, thence to the body of the nozzle outside the jet-pipe through ways *c* and *a*, and finally outward through the annular orifice between the head of the jet-pipe and the choked end of the nozzle-body. It will thus readily be seen that the change from solid jet to diverging spray may be effected by simply reversing the plug in its seat.

I am well aware that nozzles adapted to throw either solid stream or to be used as a sprinkler have heretofore been made, and I do not wish to be understood as laying claim, broadly, to this idea. Neither do I desire to be understood as claiming the use of a two or more way cock to effect the divergence of the stream, for this I know to have been done.

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

1. The combination, with the hollow body of the nozzle choked at its forward extremity and having the two-way cut-off plug, of the jet-pipe arranged axially in the body of the nozzle, contracted and slightly protruding

beyond its forward opening, whereby a small annular exit is left for the escape of the water around the jet-pipe, substantially as specified.

2. A jet and spray nozzle having its forward end choked around a contracted jet-pipe arranged axially therein and protruding therefrom, in combination with a two-way cut-off seated in the body of the nozzle, whereby the water may be projected through the jet-pipe

in a solid stream or around the latter and out in diverging spray, substantially as set forth. 10

In testimony whereof I affix my signature in presence of two witnesses.

EDWIN R. TOMLINSON.

Witnesses:

S. S. WILLIAMSON,  
W. T. HAVILAND.