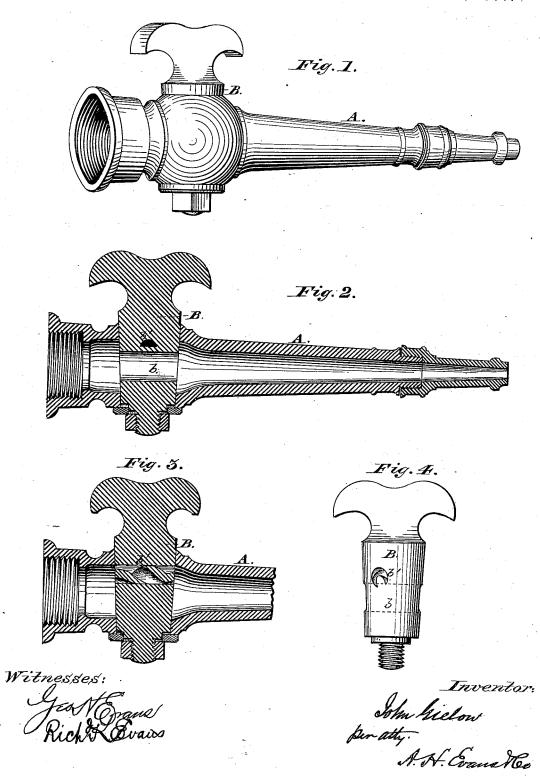
## J. GIELOW.

## NOZZLES FOR HOSE.

No. 187,123.

Patented Feb. 6, 1877.



## UNITED STATES PATENT OFFICE.

JOHN GIELOW, OF CHICAGO, ILLINOIS.

## IMPROVEMENT IN NOZZLES FOR HOSE.

Specification forming part of Letters Patent No. 187,123, dated February 6, 1877; application filed January 23, 1877.

To all whom it may concern:

Be it known that I, John Gielow, of Chicago, State of Illinois, have invented certain Improvements in Nozzles for Hose, of which the following is a clear, full, and exact description, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a perspective view of a nozzle with my improvements attached. Fig. 2 is a longitudinal section of the same with the main port in line with the nozzle. Fig. 3 is the same view with the worm-port in line with the nozzle. Fig. 4 is separate views of the plug withdrawn.

My invention relates to that class of hosenozzles designed for yards, gardens, and other ornamental uses; and it consists in making a worm-port through the plug, so located that it produces a spray when in a certain position, or a solid stream may be had with plug in regular open position.

To enable others skilled in the art to make and use my invention, I will proceed to describe the exact manner in which I have carried it out.

In nozzles heretofore constructed designed to produce a spray, the spiral water-ways have been made in the body of the nozzle; but this construction is difficult and costly, and tends to weaken the nozzle itself.

To overcome these objections is the object of my present invention.

In the drawings, A represents an ordinary nozzle, provided with the plug B. This plug is constructed with the usual main port b for throwing a solid stream; and on a line diagonal with it I provide a worm-port, b'. This latter port is conveniently constructed by first making a smooth port, similar to but smaller than the main port, and fitting into this worm, so as to give the water the desired twist or spiral motion in its passage through the plug, and by which is produced the desired spray. The worm-port may also be cored out. The line of direction of the main port and the worm port is such that one may be open and the other closed, or both closed by a simple adjustment of the plug; or the plug may be changed, at pleasure, so as to produce a great variety of jets from a solid unbroken stream to the finest spray.

Having thus explained my invention, what I claim as new is—

In a nozzle for hoze, the plug B, provided with the main port b and worm-port b', substantially as and for the purpose set forth.

JOHN GIELOW.

Witnesses:

ROB. B. MITCHELL, M. J. DALY.