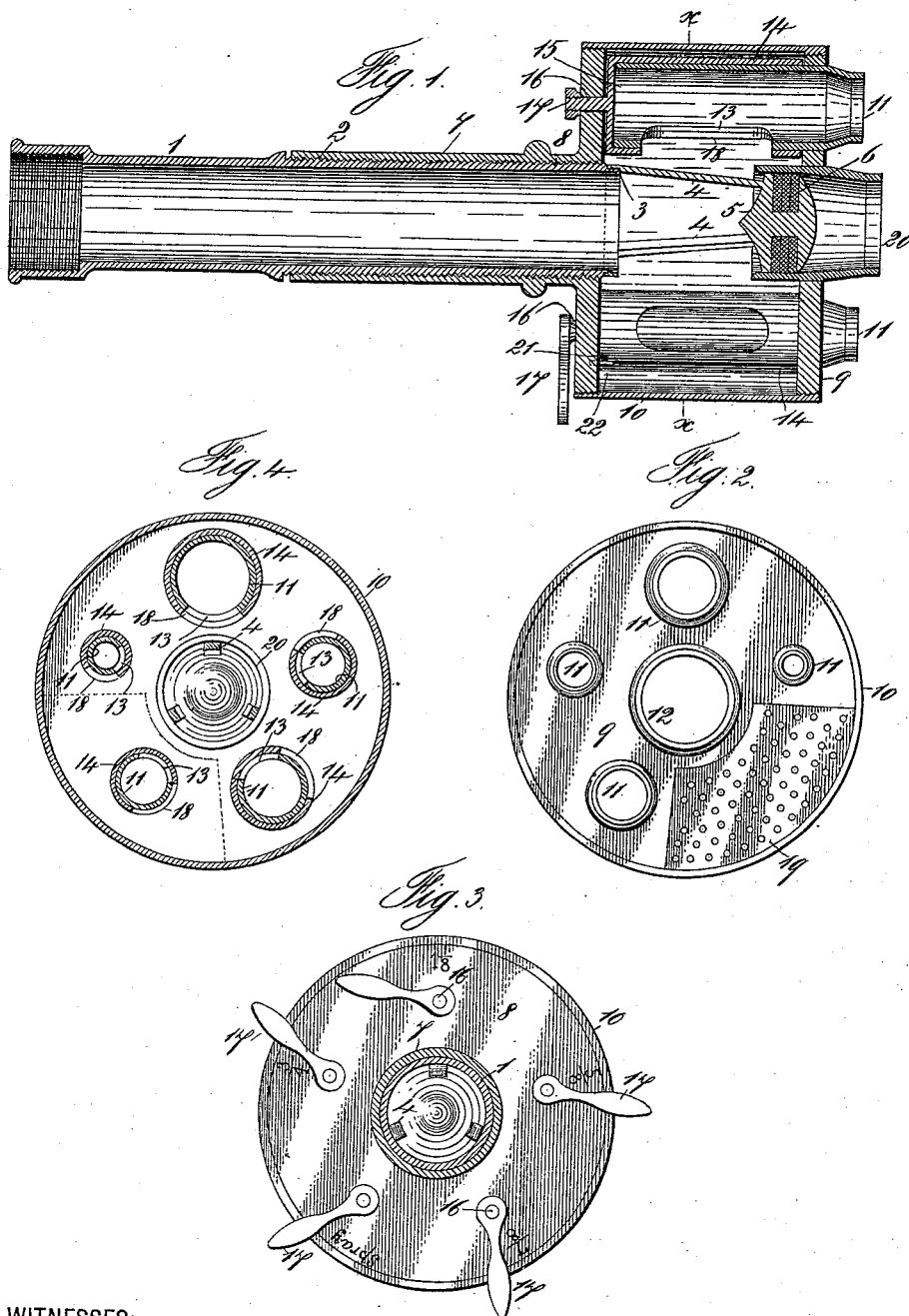


(No Model.)

W. LEGGETT.  
HOSE NOZZLE.

No. 490,445.

Patented Jan. 24, 1893.



WITNESSES:

*John Buckler,*  
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# UNITED STATES PATENT OFFICE.

WILLIAM LEGGETT, OF NUTLEY, NEW JERSEY.

## HOSE-NOZZLE.

SPECIFICATION forming part of Letters Patent No. 490,445, dated January 24, 1893.

Application filed April 7, 1892. Serial No. 428,113. (No model.)

### *To all whom it may concern:*

Be it known that I, WILLIAM LEGGETT, a citizen of the United States, residing at Nutley, in the county of Essex and State of New Jersey, have invented new and useful Improvements in Hose-Nozzles, of which the following is a specification.

My invention relates especially to the construction and arrangement of nozzles employed to throw water for extinguishing fires, and has for its object the provision of a compact, simple and effective nozzle whereby one or more streams of water of different sizes may be thrown from the same chamber, and independently cut off or changed at pleasure with the greatest ease.

To attain the desired end, my invention consists essentially in a water supply pipe bearing a chamber provided with a plurality of independently regulatable stream exits of different diameters; and my invention also involves certain other novel and useful combinations or arrangements of parts, and peculiarities of construction and operation, all of which will be hereinafter first fully described, and then pointed out in the claims.

In the accompanying drawings, Figure 1 is a longitudinal, axial sectional view of my improved nozzle. Fig. 2 is a front elevation thereof; Fig. 3 is a rear elevation of the water chamber. Fig. 4 is a cross-sectional view at line  $x-x$  of Fig. 1.

Like numerals of reference, wherever they occur, indicate corresponding parts in all the figures.

1 is a water supply pipe, designed for coupling to any suitable hose. This pipe 1, is screw-threaded at 2, and bears upon its inner extremity a ring 3, from which extend arms 4, carrying a plug 5. This plug is preferably provided with packing 6, as particularly shown in Fig. 1.

7 is a pipe, screw-threaded upon its interior, and engaging with the pipe 1.

8 is a disk formed with or secured to the pipe 7.

9 is a disk of similar size.

10 is a shell or drum, secured to the disks 8 and 9 by screw-threads, or in any other approved manner. The disk 9 is perforated for the reception of water exit tubes 11, of different sizes and capacities. These tubes are all

firmly secured to the disk 9, and extend into the water chamber formed by said disk, the drum 10, and inner disk 8, as particularly shown in Fig. 1. At 13 each tube 11 is cut away.

14 are tubes fitting snugly around each tube 11. The inner end of each tube 14 is closed by a disk 15, said disk bearing an axial shaft, 16, passing through a perforation in disk 8, and having a manipulating handle 17, attached thereto. The wall of each tube 14 is cut away at 18, correspondingly to the wall of tube 11.

19 is a spray-box fixed over the mouth of one of the tubes 11.

20 is a central exit tube, into which the plug 5 is arranged to pass.

21 is a pin fixed in a tube 14, and 22 are pins fixed in the disk 8, this arrangement regulating the position of the movable tube.

When constructed and arranged as above described, the operation of my improved nozzle is as follows: Water being supplied thereto, the chamber becomes filled. If it is desired to throw the large, central stream, by rotating the pipe 7 upon the fixed pipe 1, the plug 5 is withdrawn from the tube 20, leaving a free exit for the water, the other exits being all closed. If it is desired to shut off this stream, the rotation of the tube pipe 7 is reversed, gradually closing the exit 20, thus obviating an undue pressure within the hose wherewith my nozzle is employed, preventing bursting of the same, and giving the relief valve usually employed upon fire engines, ample time to operate. If it is desired to throw a different stream from the center exit, the operator selects the size he requires, at the rear of the water chamber, and as little resistance is offered, owing to the peculiar arrangement of my device, to the manipulation of a crank 17, he readily opens the desired exit, and the water will find an easy and unobstructed course through the chamber. If desired, two, or all of the exits may be opened at one and the same time, and in shutting off a large stream, a smaller may be first turned on, preventing undue pressure, and after the larger exit is closed, the smaller may be closed.

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

1. A hose nozzle in which is comprised a water supply pipe for coupling to the hose, a chamber connected to said supply pipe, a plurality of stream exits from the front of said  
5 chamber, and means for independently regulating said exits from the rear of the chamber, substantially as set forth.

2. In a device of the character herein specified, the combination with the water chamber,  
10 of a plurality of inwardly projecting exit tubes, each open at the side within the chamber, said inwardly projecting exit tubes being each surrounded by a movable tube, also having an opening in the side, substantially as  
15 shown and described.

3. In a device of the character herein specified, the combination with a fixed exit tube mounted in a water chamber and open at one

side, of a surrounding movable tube, closed at its inner end, having an opening in the  
20 side, and being provided with means for moving the said outer tube, substantially as shown and described.

4. In a device of the character herein specified, a fixed water supply pipe bearing at one  
25 extremity arms whereon is mounted a plug; an outer pipe movably mounted upon the supply pipe, said outer pipe bearing a water chamber, having an exit tube into which the above mentioned plug may pass, the whole combined  
30 and arranged to operate, substantially as shown and described.

WILLIAM LEGGETT.

Witnesses:

A. M. PIERCE,  
ISABEL CHESTER.