

(No Model.)

F. E. JOHNSON.
HOSE NOZZLE.

No. 578,517.

Patented Mar. 9, 1897.

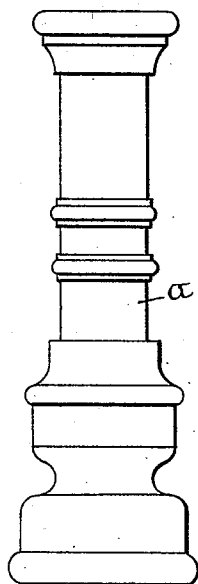


Fig. 1

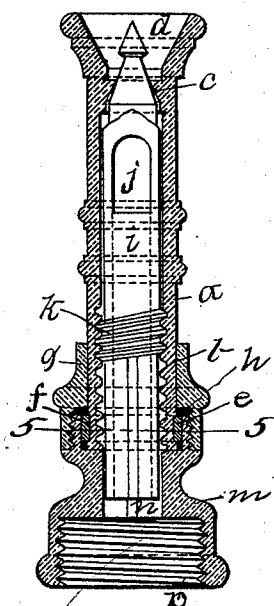


Fig. 2

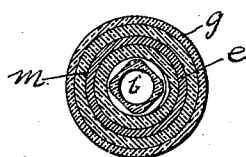


Fig. 5

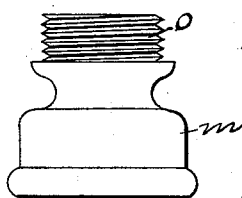


Fig. 4

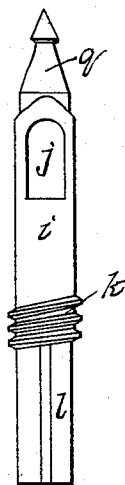


Fig. 3

Witnesses
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UNITED STATES PATENT OFFICE.

FRANK E. JOHNSON, OF GREENSBURG, PENNSYLVANIA, ASSIGNOR TO JOHN T. KELLY, OF BROOKLYN, NEW YORK, AND GEORGE M. JONES, OF PITTSBURG, PENNSYLVANIA.

HOSE-NOZZLE.

SPECIFICATION forming part of Letters Patent No. 578,517, dated March 9, 1897.

Application filed February 18, 1895. Serial No. 538,820. (No model.)

To all whom it may concern:

Be it known that I, FRANK E. JOHNSON, a resident of Greensburg, in the county of Westmoreland and State of Pennsylvania, have invented a new and useful Improvement in Hose-Nozzles, (Case B;) and I do hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to hose-nozzles, and more particularly to that class of nozzles which are capable of spraying the water as it is discharged therefrom.

My invention comprises, generally stated, a rotary body portion which is interiorly threaded at one end thereof, a hollow spindle having an opening therein, and a threaded portion adapted to engage with said body portion, the lower end of said spindle being angular in cross-section and entering a correspondingly-shaped seat in a suitable hose connection, whereby upon turning said body portion the said spindle is advanced or withdrawn, as may be desired.

To enable others skilled in the art to make and use my invention, I will describe the same more fully, referring to the accompanying drawings, in which—

Figure 1 is a side elevation of my improved nozzle. Fig. 2 is a vertical section thereof. Fig. 3 is a view of the spindle. Fig. 4 is a view of the socket adapted to receive the end of the spindle; Fig. 5, a section on line 5 5, Fig. 2.

Like letters indicate like parts in each of the figures.

The rotary body portion *a* is provided with the screw-threads *b* on the interior and at the lower end thereof. It is provided further with the interior shoulder *c* and the flaring mouth *d*. A splitting *e* engages with a groove *f* at the lower end of the body portion. A collar *g* surrounds said body portion *a* above said ring, and said collar incloses the packing *h*, which is wrapped around the body portion at the lower end thereof.

Fitting within the body portion *a* is the spindle *i*, which is hollow and provided with openings *j* to permit of the escape of the water into said body portion. The spindle *i* is

provided with the screw-threads *k*, which engage with the screw-threads *b* of the body portion *a*. The lower end *l* of said spindle is angular in cross-section, as shown. This lower end *l* of said spindle fits within the correspondingly-shaped seat *m* in the hose connection *n*. This hose connection *n* is threaded, as at *o*, to engage with the collar *g* and has the interior threads *p*, by which said connection is connected up to the hose.

The upper end of the spindle *i* has the ordinary double cone *q*, by which the mouth of the nozzle is controlled according to the spraying action desired.

When my improved nozzle is in use, by turning the rotary body portion *a*, the threads *b*, engaging the threads *k* of the spindle *i*, act to advance or withdraw said spindle, as may be desired. By having the advancing and withdrawing of the spindle accomplished directly by the threads within the body portion engaging with the threads on the spindle and a non-rotary connection between the spindle and the hose connection I avoid the strain occasioned by having the spindle turn with the body portion and its threaded portion engaging with the hose connection and turning therein.

Owing to the fact that the lower end of the spindle has the long square shank *l* fitting within the correspondingly-shaped seat *m* in the hose connection, I am enabled to dispense with the great number of threads ordinarily employed on the spindle to keep said spindle in proper alinement.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a nozzle, the combination of a rotary body portion having a valve-seat at the upper end and an interior threaded portion below the same, of a spindle having exterior threads engaging with the threads of the body portion and an angular portion below the same, said spindle having a central passage leading from the base toward the top thereof and terminating in side ports, a valve beyond said ports, a base connection having an angular seat engaging with the base of said

spindle, and a collar connecting the hose connection, and body portion, substantially as set forth.

2. In a nozzle, the combination with a rotary body portion having threads therein, of a hollow spindle with openings therein and a threaded portion engaging with the threads in said body portion, said spindle below said threaded portion having a straight square

shank, and a hose connection having a square seat therein adapted to receive said shank, substantially as set forth.

In testimony whereof I, the said FRANK E. JOHNSON, have hereunto set my hand.

FRANK E. JOHNSON.

Witnesses:

L. D. CASTLE,
W. C. LOOR.