

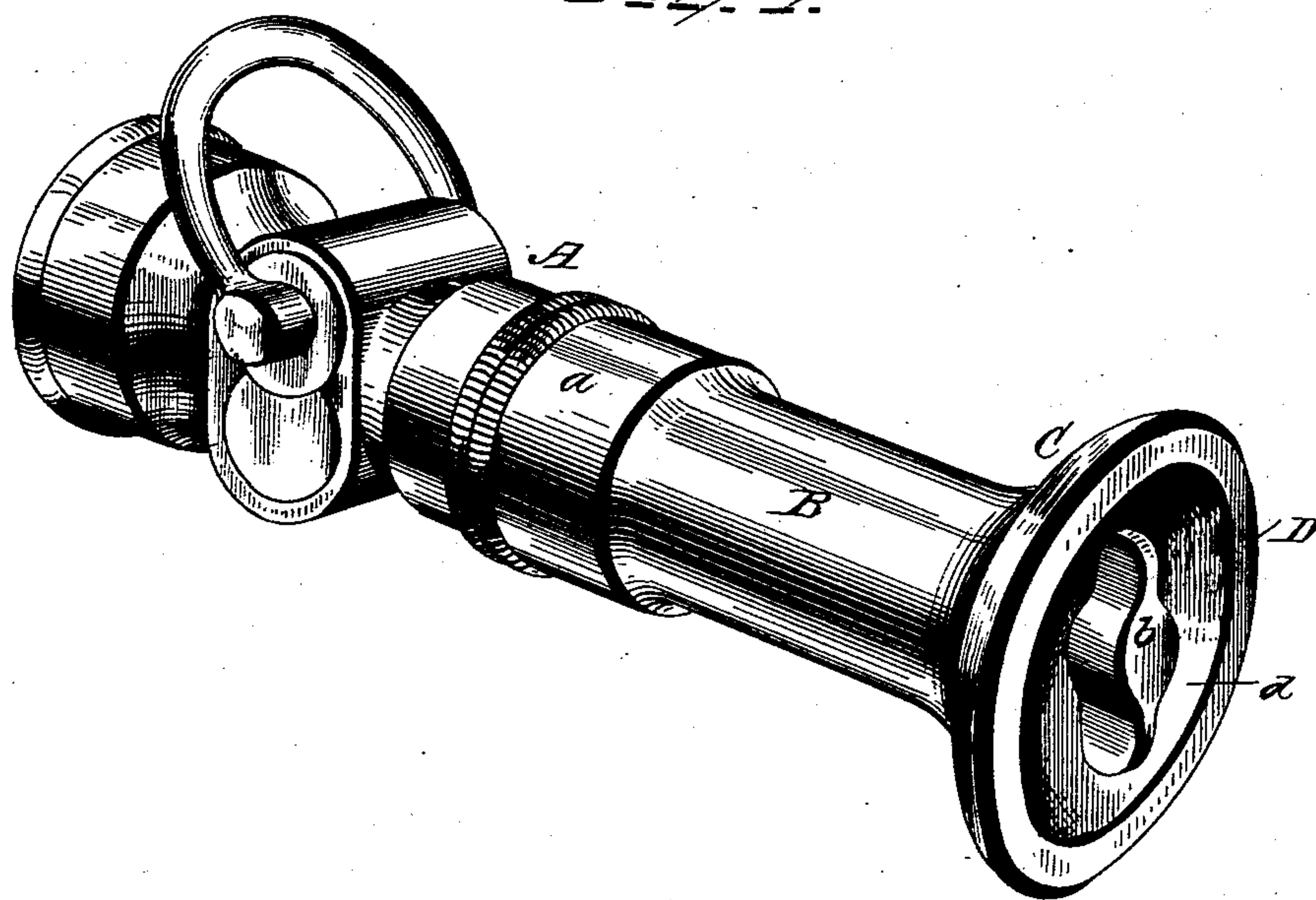
(No Model.)

W. BINFORD  
SPRAY NOZZLE.

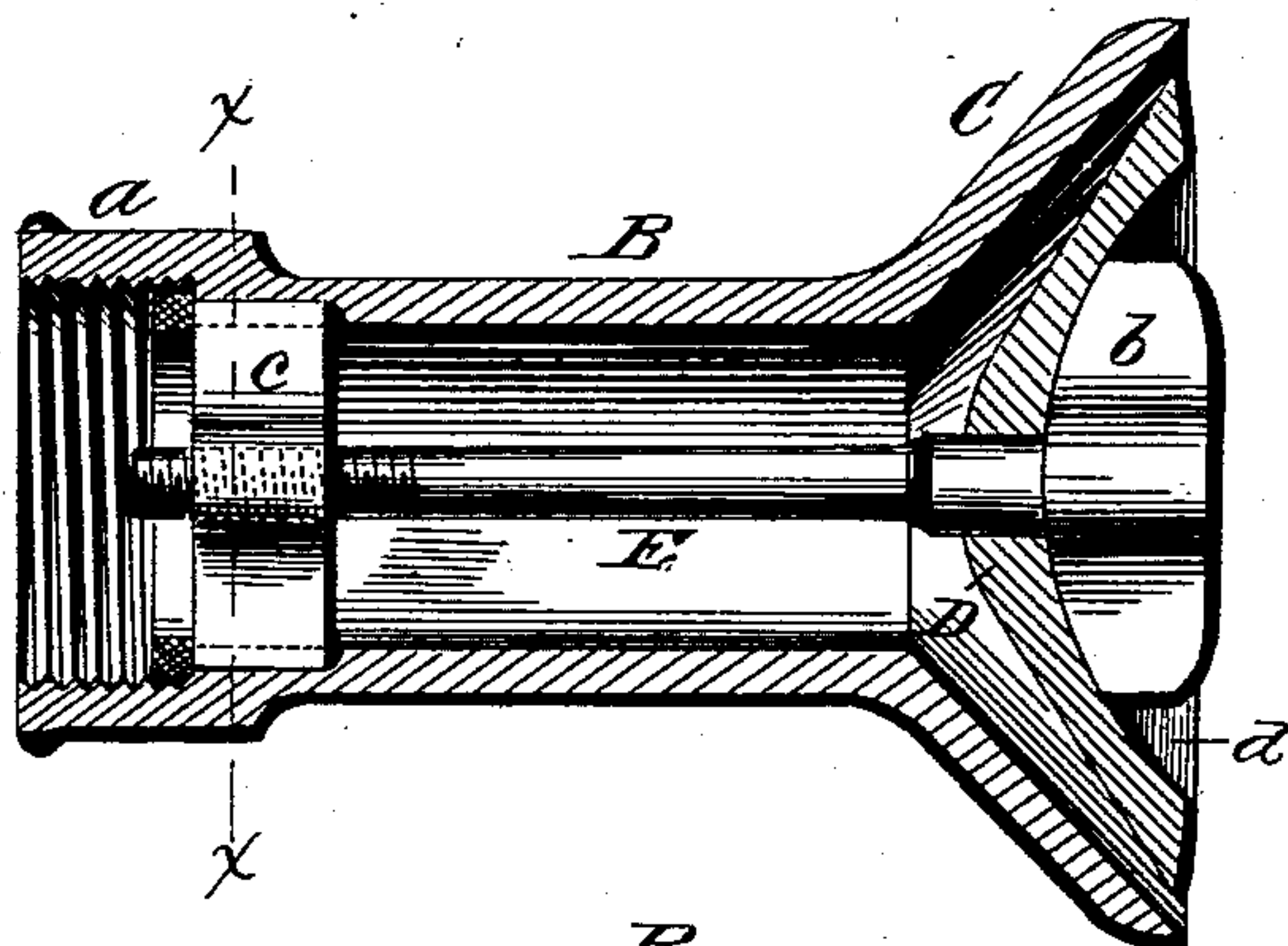
No. 571,940.

Patented Nov. 24, 1896.

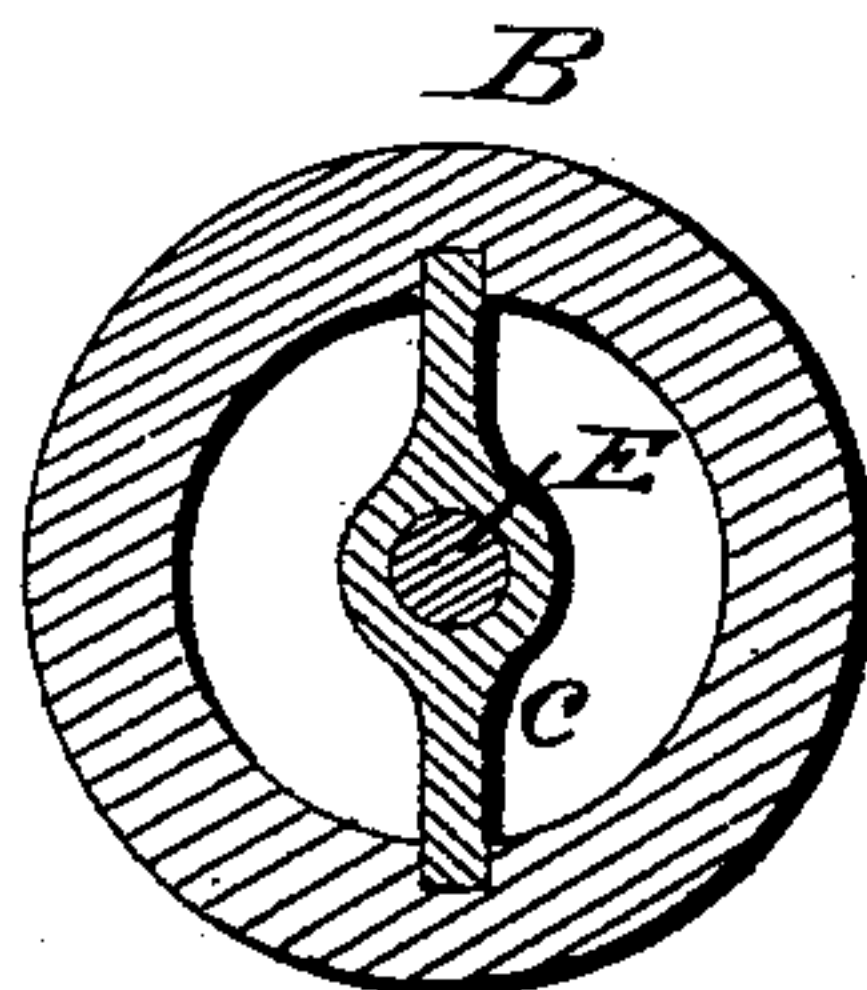
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



WITNESSES

*Williamson*  
*Walter Potter*

INVENTOR

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*per Cha. H. Fowler*  
Attorney



# UNITED STATES PATENT OFFICE.

WILLIAM BINFORD, OF OGDEN, UTAH.

## SPRAY-NOZZLE.

SPECIFICATION forming part of Letters Patent No. 571,940, dated November 24, 1896.

Application filed April 11, 1896. Serial No. 587,142. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM BINFORD, a citizen of the United States, residing at Ogden, in the county of Weber and State of Utah, have  
5 invented certain new and useful Improvements in Spray-Nozzles; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being  
10 had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon.

The present invention has for its object to provide an adjustable spray-nozzle that may be equally applicable for use on a fire or garden hose or wherever such a nozzle would be  
15 found useful; and it consists in a nozzle constructed substantially as shown in the drawings and hereinafter described and claimed.

Figure 1 of the drawings is a perspective  
20 view of my improved nozzle, showing it applied to the coupling-section of a fire-hose; Fig. 2, a longitudinal section of the nozzle; Fig. 3, a transverse section thereof, taken on line *xx* of Fig. 2.

25 In the accompanying drawings, A represents the ordinary coupling-section of a fire-hose, and B my improved nozzle connected thereto by means of the interior screw-threaded sleeve *a*. This nozzle may be of  
30 any suitable length and diameter to adapt it to the various uses to which it may be applied, such as an attachment to fire-hose or garden or other hose, thereby necessitating  
35 nozzles of different sizes and means of securing the nozzle thereto which may be different from the screw-threaded sleeve herein described.

The outer end of the nozzle is funnel shape, as shown at C, which may be formed integral  
40 therewith or separate and afterward connected to the end of the nozzle by a screw-coupling or by other preferred means found most desirable.

45 A concavo-convex sprayer D is located within the funnel-shaped end of the nozzle and is rendered adjustable with relation thereto by means of a screw-threaded stem E, which

is rigidly attached to the sprayer and is provided with a thumb-piece *b*, whereby the stem is turned in the bearing to adjust the sprayer  
50 and diminish or increase the space between the sprayer and funnel-shaped end of the nozzle, and thereby regulate the spray of water coming therefrom. The inner end only of the  
55 stem E is screw-threaded to engage with the screw-threaded hold in a suitable bearing *c*, and when a solid stream is desired by a few turns of the stem it may be disengaged from  
its bearing and the stem and sprayer detached and removed from the nozzle. 60

The outer concave side of the sprayer enables the thumb-piece to be seated therein and avoids the necessity of it projecting out  
any very great distance from the plane of the  
65 sprayer. A further advantage in the concavity of the sprayer is that a depression, as shown at *d*, is provided for the fingers when grasping the thumb-piece in adjusting the  
sprayer.

In constructing the nozzle and its operating parts many modifications or changes may be made therein without departing from the principle of the invention. 70

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

The nozzle B provided with the flaring end C, and having longitudinal grooves in its opposite end, and the perforated bearing *c* which has its ends held in the grooves, combined  
80 with the screw-bolt, provided with a thumb-nut on its outer end, and the convex sprayer which is located within the flaring end of the nozzle; the screw-bolt being made to pass  
85 through the sprayer and screw into the cross-piece *c*, substantially as shown.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

WILLIAM BINFORD.

Witnesses:

EDW. H. ANDERSON,  
JNO. V. BLUTH.