

No. 801,210.

PATENTED OCT. 10, 1905.

W. BURNETT.  
HOSE NOZZLE.

APPLICATION FILED NOV. 19, 1904.

Fig. 4.

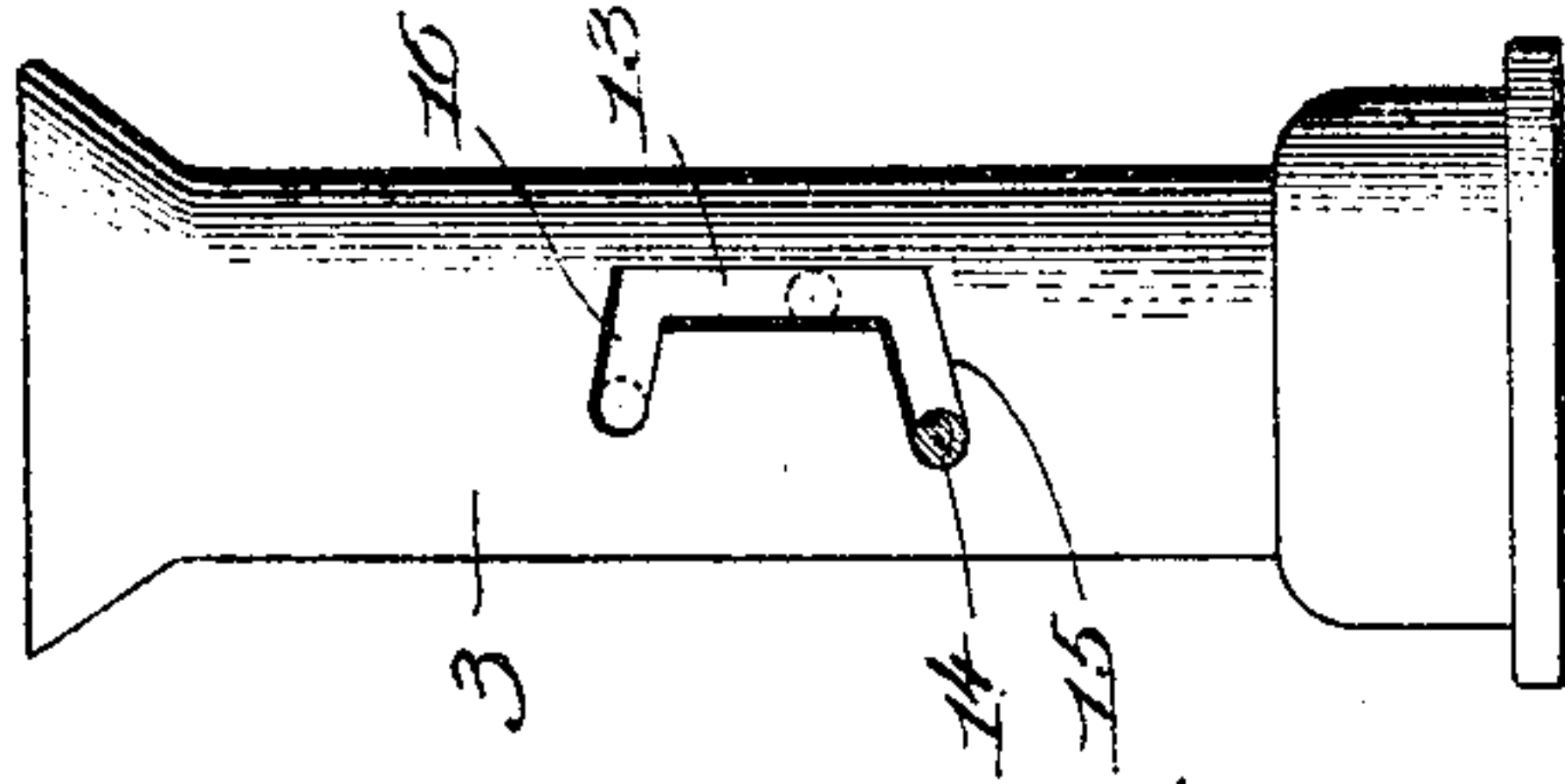


Fig. 3.

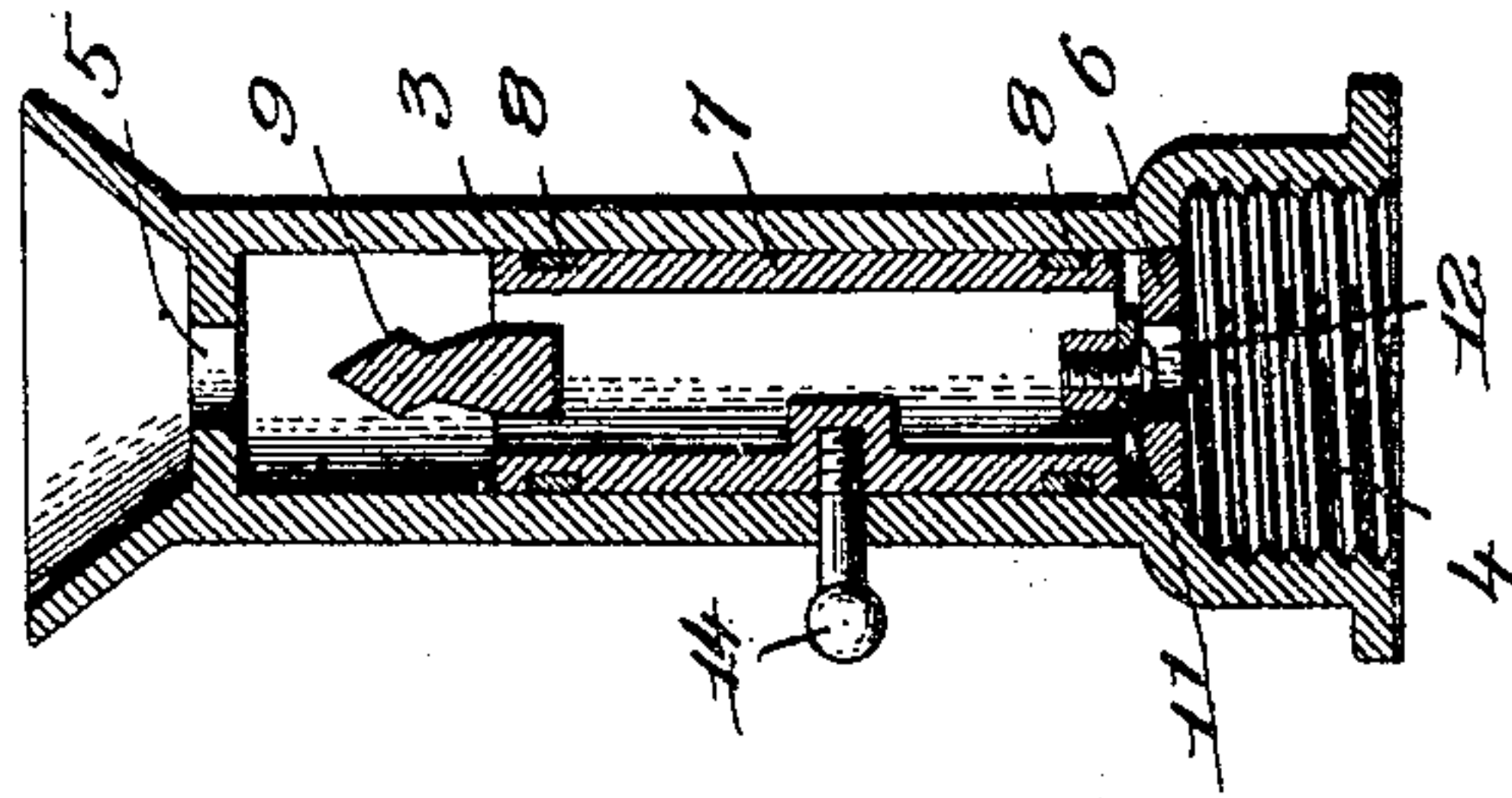


Fig. 2.

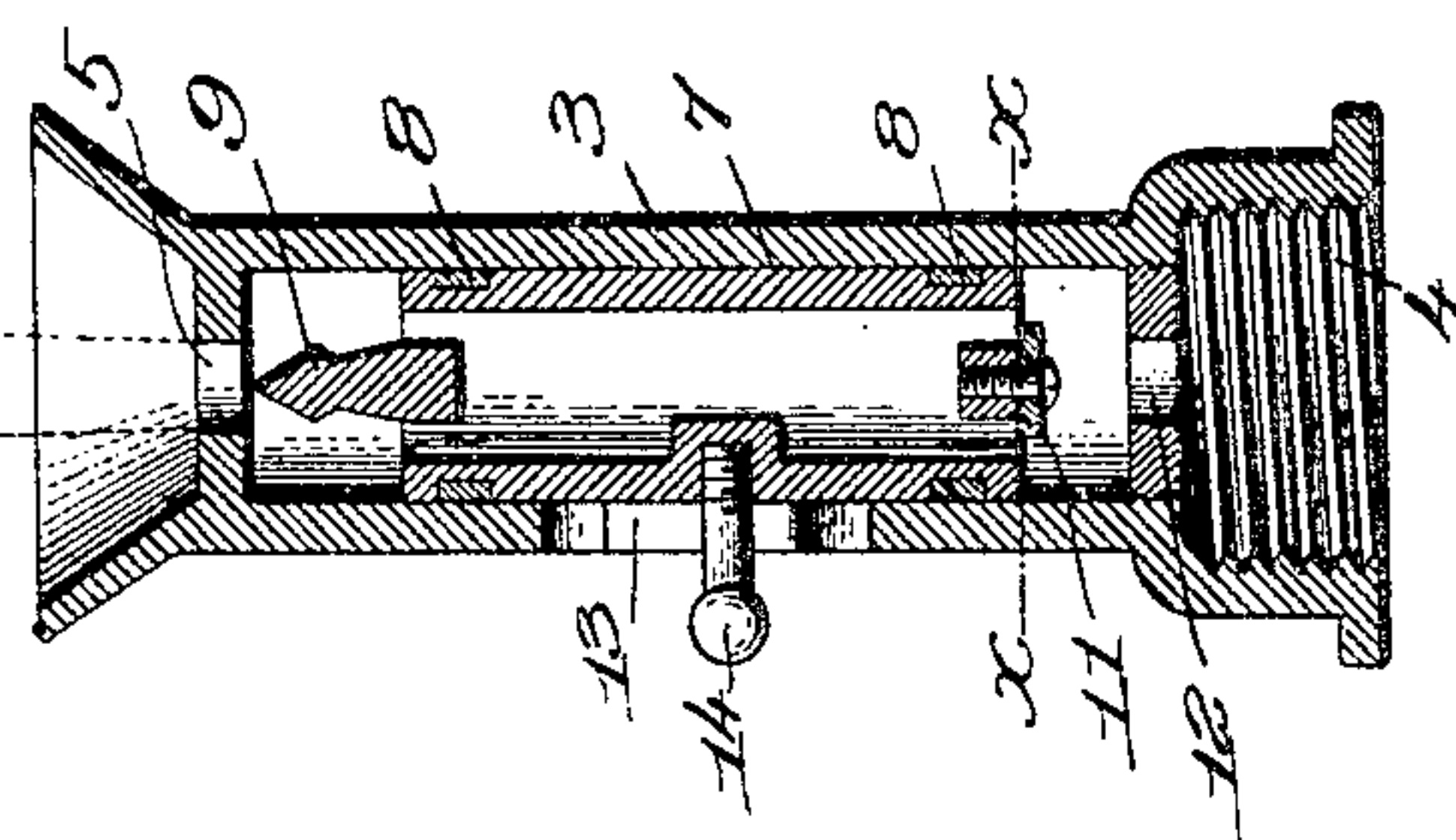


Fig. 1.

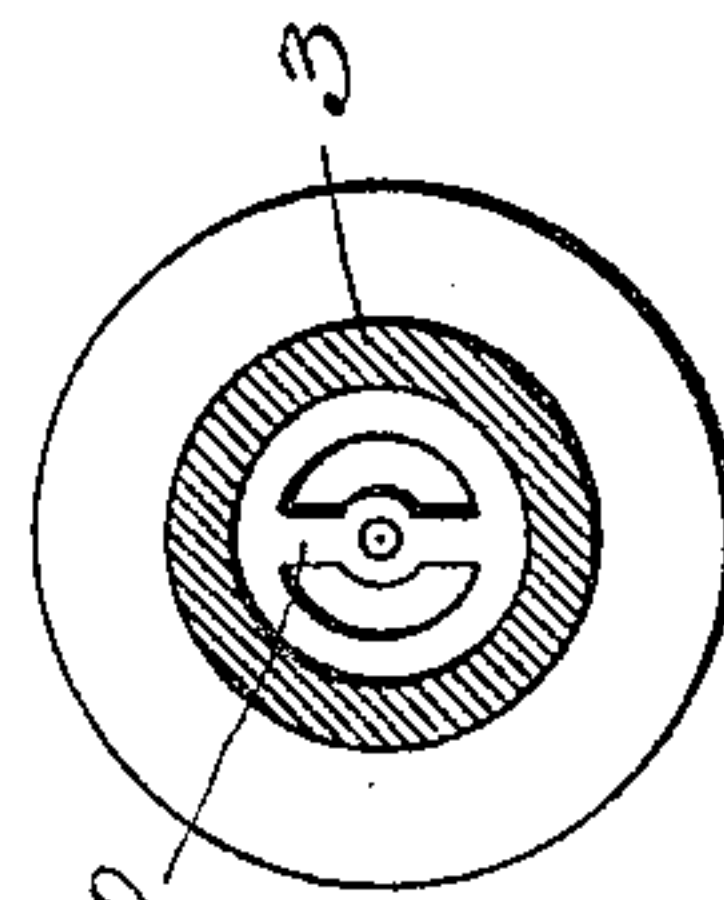
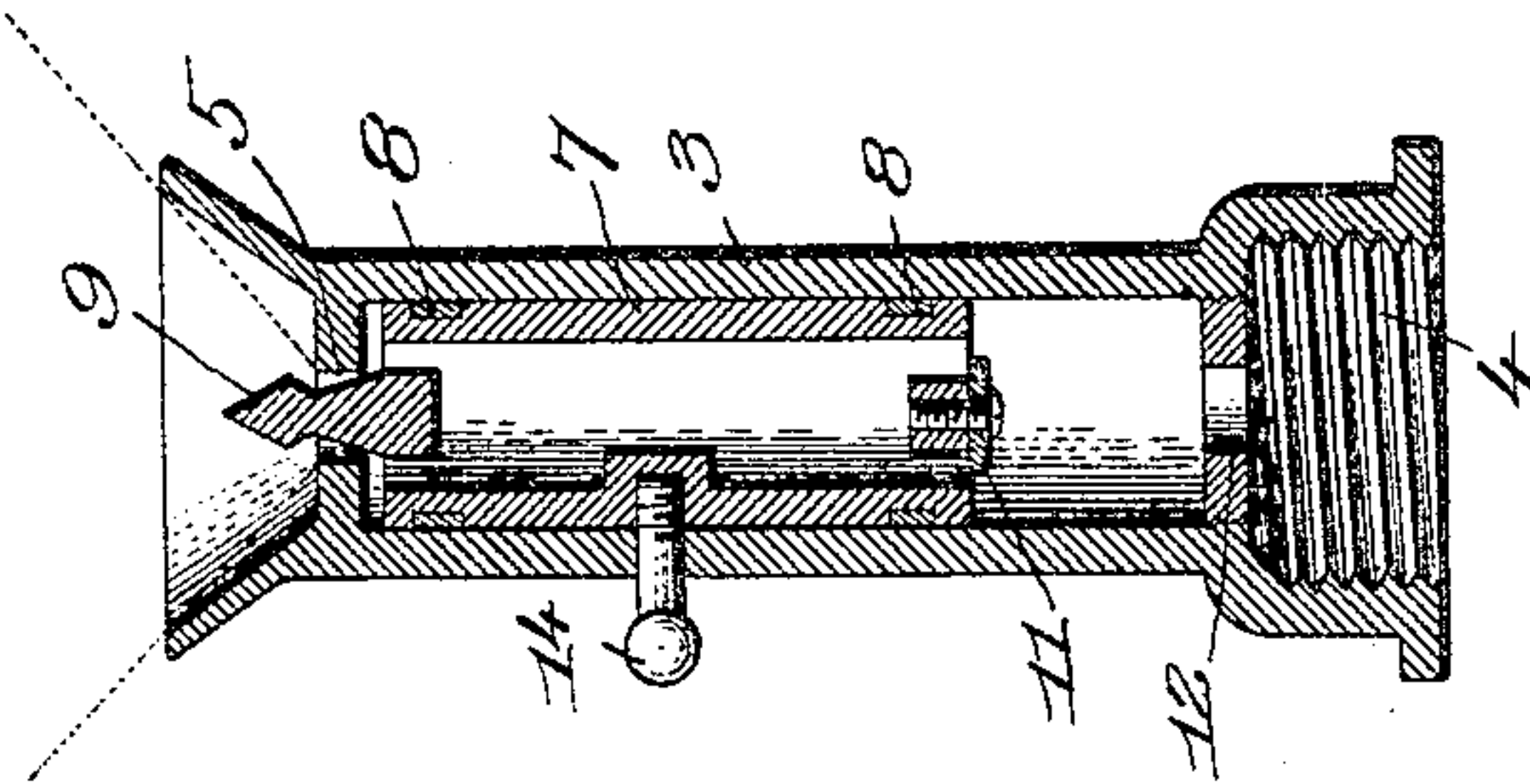


Fig. 5.

Witnesses:  
Fred S. Grunlof.  
W. C. Lunsford.

Inventor.  
Wesley Burnett,  
by Crosby Ferguson,  
Attys.



# UNITED STATES PATENT OFFICE.

WESLEY BURNETT, OF CAMBRIDGE, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO WILLIAM K. MASON, OF BROOKLINE, MASSACHUSETTS.

## HOSE-NOZZLE.

No. 801,210.

Specification of Letters Patent.

Patented Oct. 10, 1905.

Application filed November 19, 1904. Serial No. 233,405.

*To all whom it may concern:*

Be it known that I, WESLEY BURNETT, a citizen of the United States, residing at Cambridge, in the county of Middlesex and State of Massachusetts, have invented an Improvement in Hose-Nozzles, of which the following description, in connection with the accompanying drawings, is a specification, like numericalson the drawings representing like parts.

This invention relates to hose-nozzles, and has for its object to provide a nozzle which is simple and inexpensive to manufacture and which is easily and quickly operated.

The device comprises a barrel having at one end an eduction-aperture and at the other end a valve-seat and a hollow plunger within said barrel, the inner end of the plunger being formed to constitute a valve and the outer end carrying a spraying-bulb. The plunger has a thumb-piece secured thereto which projects through a slot in the barrel, thereby permitting the plunger to be operated from the exterior of the barrel. When the plunger is moved inwardly, the valve at one end thereof engages the valve-seat in the nozzle, while when the valve is moved in the opposite direction to separate the valve from the valve-seat the water can flow through the plunger and out the eduction-aperture. The character of the stream, whether in the form of a solid stream or in the form of a spray, depends upon the position of the plunger, and consequently of the spraying-bulb, with reference to the eduction-aperture.

I have illustrated one embodiment of my invention in the accompanying drawings, in which—

Figure 1 is a longitudinal section through a nozzle embodying my invention, showing the nozzle arranged for delivering a spray. Fig. 2 is a similar section showing the plunger in the position to deliver a solid stream. Fig. 3 is a similar view showing the valve closed. Fig. 4 is a side elevation of the nozzle, and Fig. 5 is a section on the line *x x*, Fig. 2.

3 designates the barrel of the nozzle. Said barrel is provided at its inner end with interior screw-threads 4, by means of which it may be coupled to the hose, and at its other end with an eduction-aperture 5, through which the stream of water is delivered. At the inner end of said barrel is a member 6, having an aperture 12 therethrough and constituting a

valve-seat, said member preferably being screw-threaded into the barrel, and thus detachable therefrom. Situated within the barrel is a plunger 7, which is of a size to tightly fit the barrel and is preferably provided with packing-rings 8 to prevent any leakage of water between said plunger and barrel. The plunger is hollow, as illustrated, and its inner end is formed to constitute a valve which co-operates with the valve-seat 6. At the outer end the plunger carries a spraying-bulb 9, which is of a size to pass through the eduction-aperture 5.

In the preferred form of my invention each end of the plunger has a bridge-piece 10 extending across the same, and the bridge-piece at the outer end carries the spraying-bulb, while that at the inner end carries the valve. The valve may be of any suitable or usual type, that herein illustrated being merely a washer 11, which is of a size to cover the opening 12 in the valve-seat. The barrel is provided with the slot 13, through which projects a finger-piece 14, secured to the plunger. This slot is shown as having the angular portion 15 at the inner end and the inclined angular portion 16 at the outer end.

When the parts are in the position shown in Fig. 3, with the valve 11 engaging the valve-seat 6, the water is shut off, as will be obvious.

The angular portion 15 of the slot is formed to accommodate the finger-piece 14 when the valve is closed, the turning of the plunger so as to carry the finger-piece into said angular portion resulting in locking said plunger against movement. For delivering a solid stream of water the finger-piece is turned out of the angular portion and into the straight portion 13 of the slot, and the plunger is moved longitudinally of the barrel to separate the valve from the valve-seat, as shown in Fig. 2. The water will then pass through the plunger and be delivered from the eduction-aperture in a solid stream, as indicated in dotted lines. To get a spray, the plunger is moved toward the outer end of the barrel sufficiently far to carry the spraying-bulb through the eduction-aperture, as shown in Fig. 1, the finger-piece 14 in this position standing at the outer end of the straight portion 13 of the slot.

It will be noted that the angular portion 16 of the slot is inclined slightly. The purpose



of this is to permit the spread of the spray to be varied, for the spraying-bulb is moved farther through the eduction-aperture when the finger-piece is at the end of the angular 5 portion of the slot than when it is at the end of the straight portion thereof, and this difference of position in the spraying-bulb is sufficient to effect the spread of the spray.

It is not essential to my invention that the 10 slot in the barrel have the angular portion 16; but I prefer to construct the slot in this way in order to permit the spread of the spray to be varied.

It will be seen that my nozzle comprises 15 few parts and is very easily operated.

While I have described the best form of my invention now known to me, I do not wish to be limited to what is illustrated in the drawings, as various changes in the construction 20 and details of the parts may be made without departing from my invention.

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

25 1. In a hose-nozzle, a cylindrical barrel having a smooth interior bore and provided with an eduction-aperture at its outer end and a valve-seat at its inner end, a hollow externally-packed plunger fitting within the barrel, the inner end of said plunger constituting 30 a valve to engage the valve-seat, and a spraying-bulb at the outer end of the plunger adapt-

ed to pass through the eduction-aperture as the plunger is moved.

2. In a hose-nozzle, a cylindrical barrel hav- 35 ing a smooth interior bore, an eduction-aperture at its outer end and a valve-seat at its inner end, a hollow externally-packed plunger within the barrel, the inner end of said barrel constituting a plunger to engage the valve- 40 seat, a spraying-bulb at the outer end of the plunger, and a finger-piece secured to the plunger and projecting through a slot in the barrel.

3. In a hose-nozzle, a cylindrical barrel hav- 45 ing a smooth interior bore, an eduction-aperture at its outer end, and a detachable valve-seat at its inner end which faces toward the end of the barrel, a hollow externally-packed plunger fitting within the said barrel, the in- 50 ner end of said plunger constituting a valve to engage a valve-seat, a spraying-bulb at the outer end of the plunger adapted to pass through the eduction-aperture as the plunger is moved, and a finger-piece rigid with the 55 plunger and extending through a slot in the barrel.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WESLEY BURNETT.

Witnesses:

LOUIS C. SMITH,  
W. KENNEDY MASON.