

No. 721,656.

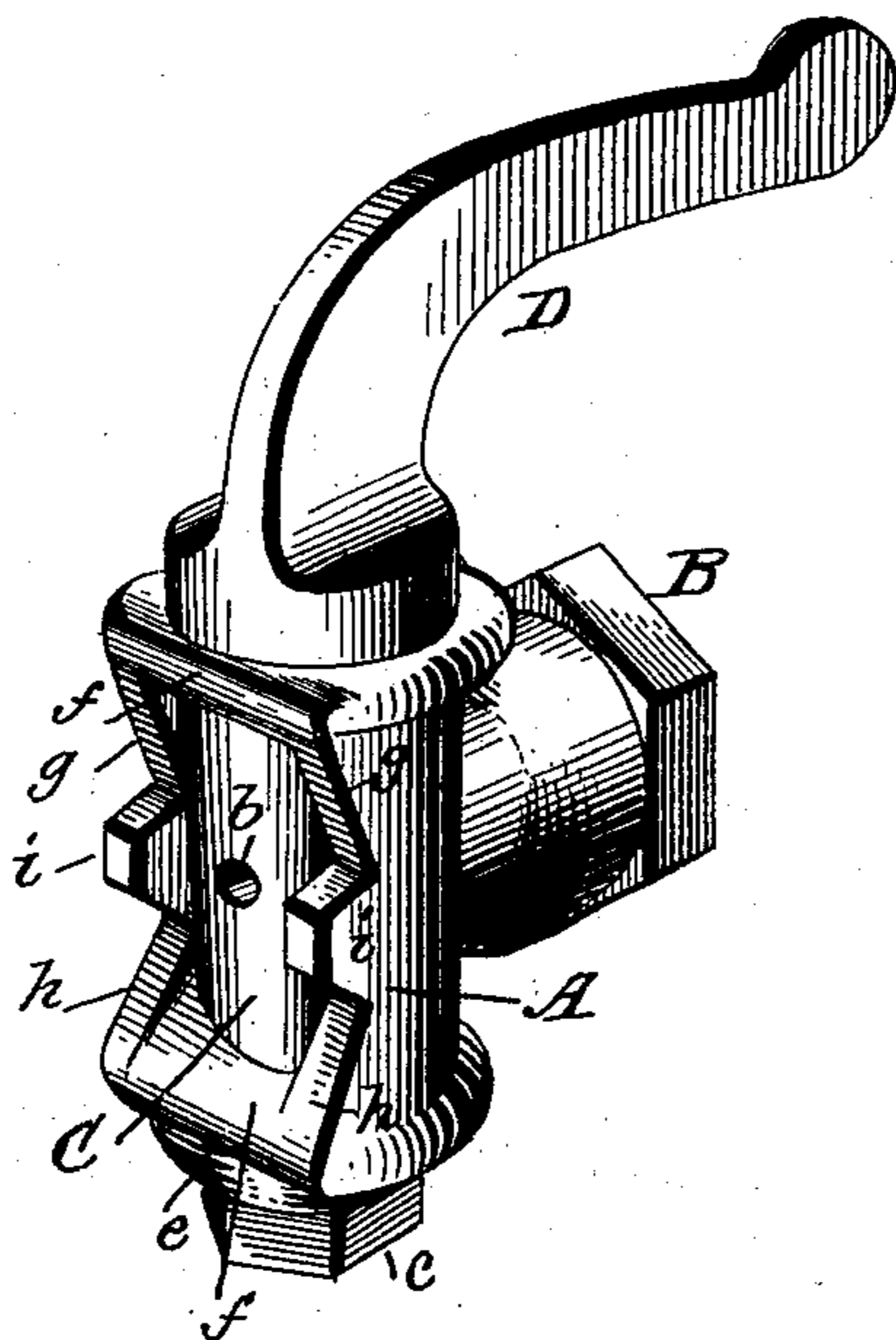
PATENTED MAR. 3, 1903.

J. BEAN.  
NOZZLE.

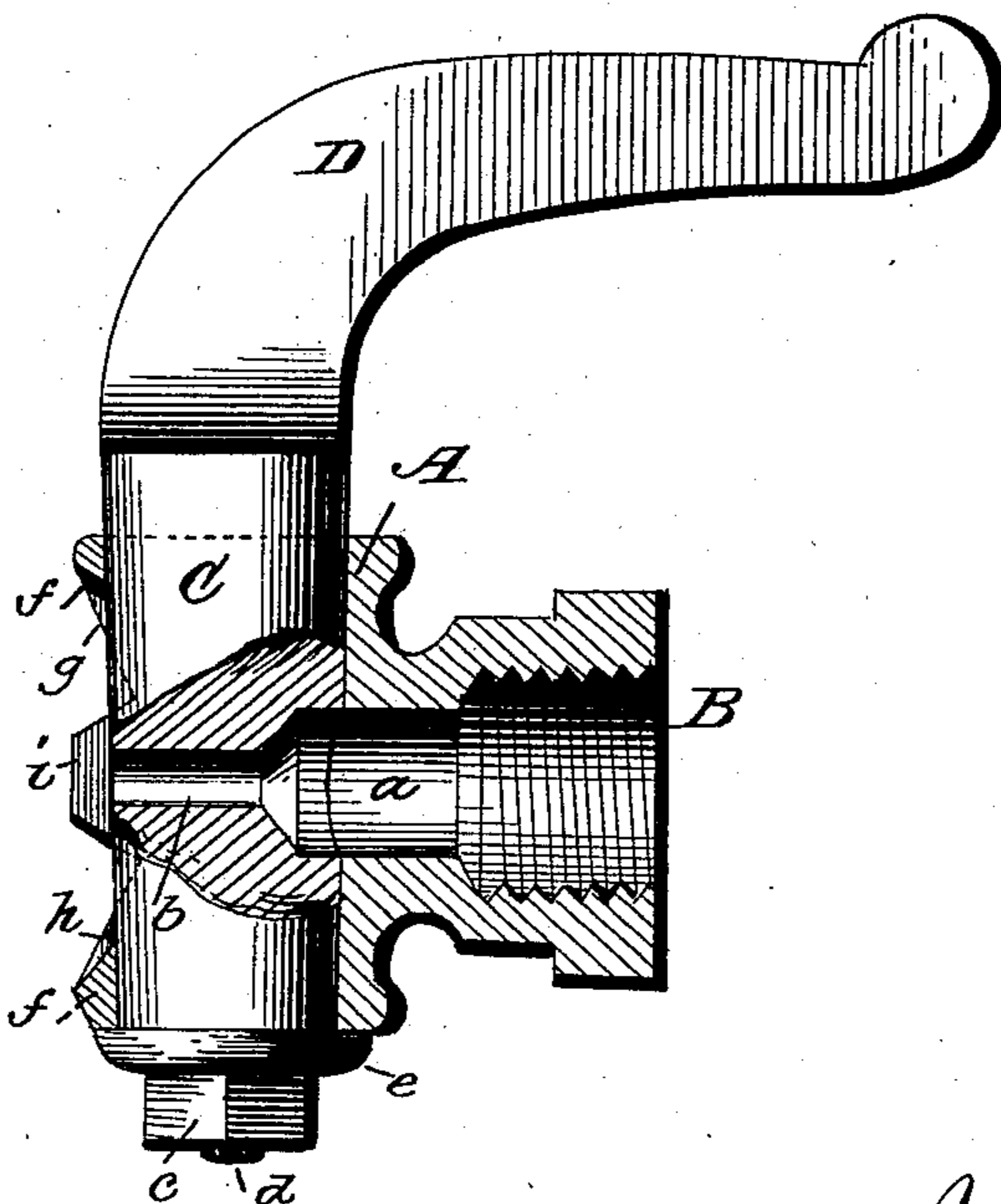
APPLICATION FILED OCT. 28, 1902.

NO MODEL.

*Fig. 1.*



*Fig. 2.*



Witnesses  
G. Williamson  
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# UNITED STATES PATENT OFFICE.

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## NOZZLE.

SPECIFICATION forming part of Letters Patent No. 721,656, dated March 3, 1903.

Application filed October 28, 1902. Serial No. 129,065. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN BEAN, a citizen of the United States, residing at Los Gatos, in the county of Santa Clara and State of California, have invented certain new and useful Improvements in Nozzles; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being 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 a simple and effective nozzle adapted for connecting with a pump, reservoir, or other convenient source of supply containing the liquid to be discharged through the nozzle in a spray or solid stream, as circumstances would require, the shell or body of the nozzle through which the liquid passes being so constructed that all drippage and leakage in the nozzle will be immediately taken in by the draft of the suction and carried out with the spray or stream of liquid, thereby preventing the same from accumulating on the edges or lips of the opening in the shell or body and dropping off therefrom.

The invention therefore consists in a nozzle constructed substantially as shown in the drawings and hereinafter described and claimed.

Figure 1 of the drawings is a perspective view of a nozzle embodying my invention; Fig. 2, a side elevation partly in section.

In the accompanying drawings, A represents the shell or body of the nozzle, which is provided with a suitable coupling B, preferably having screw-threads upon its interior for connecting thereto a tube, pipe, or hose or connecting the coupling directly to the vessel or reservoir containing the liquid. Any suitable means, however, may be employed for attaching the nozzle, so as to make a communication between it and the source of supply, as found most preferable, said coupling having an inlet *a* to communicate with the contracted outlet *b* for the discharge of the liquid, the outlet extending diametrically through the plug-valve C and said plug-valve having a suitable handle D for turning it. The plug-valve is retained in the shell or body by means of the screw-nut *c* engaging the screw-nipple *d* thereof, a washer *e* being interposed between the nut and the lower end

of the plug-valve. The opening in front of the shell or body A extends nearly the entire length thereof, leaving a web *f* at both the top and bottom to properly retain the valve-plug in the shell or body and form a bearing therefor. The side wall or walls of the shell or body have inclined lip or lips *g h*, both lips at their inner ends joining an outward projection of any suitable form and construction, which I will term a "tongue" *i*. The outer sides of the lips *g h* serve the purpose of carrying to the tongue *i* all drippings and leakage, where it is immediately taken in by the draft of the suction and carried out with the spray.

Heretofore the edges of the spray fell short on account of the friction caused by the outer sides of the spray having to travel a greater distance on the edges of the lip of the side wall of the body or shell than the center of spray; but the employment of a projection or tongue gives the same friction to all parts of the spray, and therefore must travel the same distance after leaving the nozzle, thereby providing a nozzle that will throw a spray without drippage and without any part of the spray falling short and being wasted.

It is evident that any suitable form and construction of lip and any suitable form and construction of tongue may be used without departing from the spirit of my invention, and any such changes as would come within ordinary mechanical skill and judgment may be resorted to, as found most preferable.

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

1. In a nozzle, the shell or body thereof having a tongue upon its side wall which extends out beyond the edge of said wall and of a less width than the length thereof, substantially as and for the purpose described.

2. In a nozzle, the shell or body thereof having double inclined lips and a projection or tongue to which the inner ends of the lips join, substantially as and for the purpose specified.

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

JOHN BEAN.

Witnesses:

D. C. CRUMMEY,  
ALF. P. LAHMER.