

F S Babbitt,

Nozzle.

N^o 81,242.

Patented Aug 18, 1868.

Fig. 1.

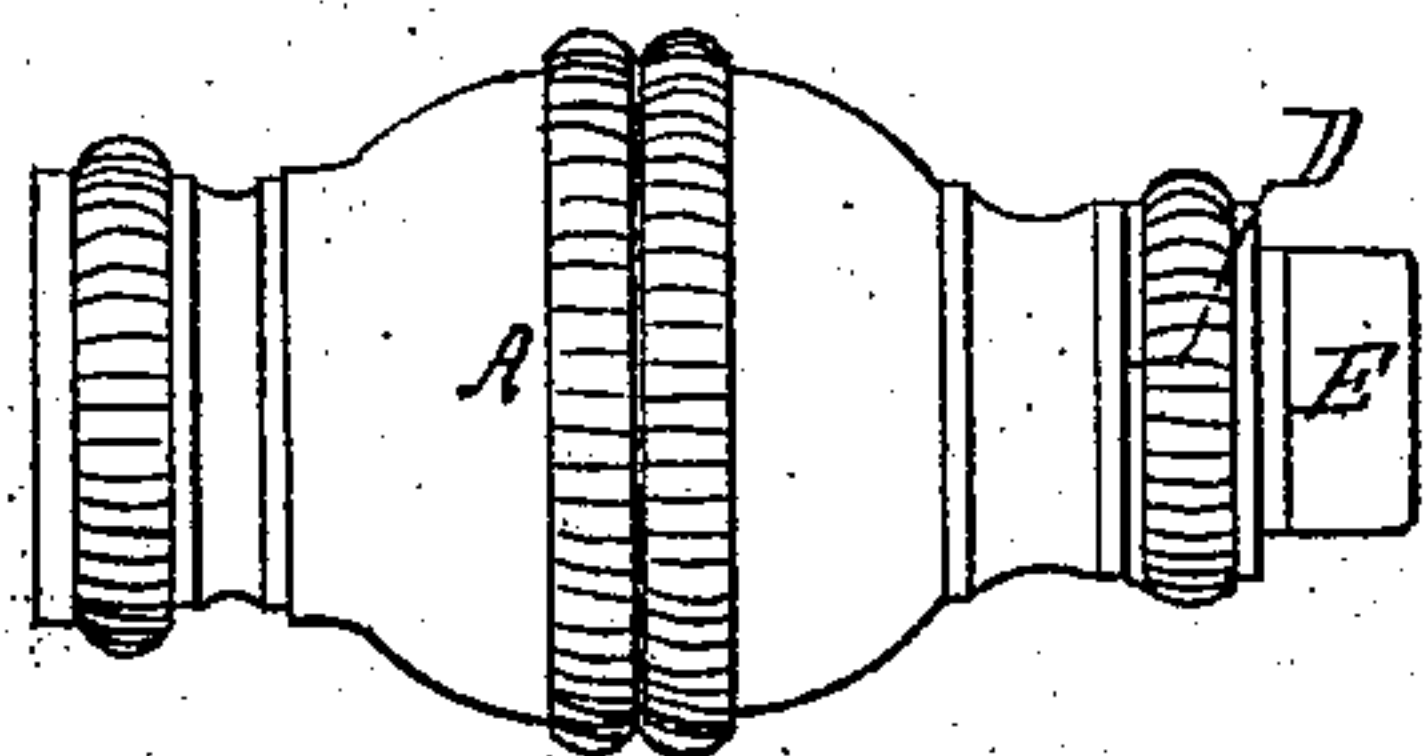


Fig. 2.

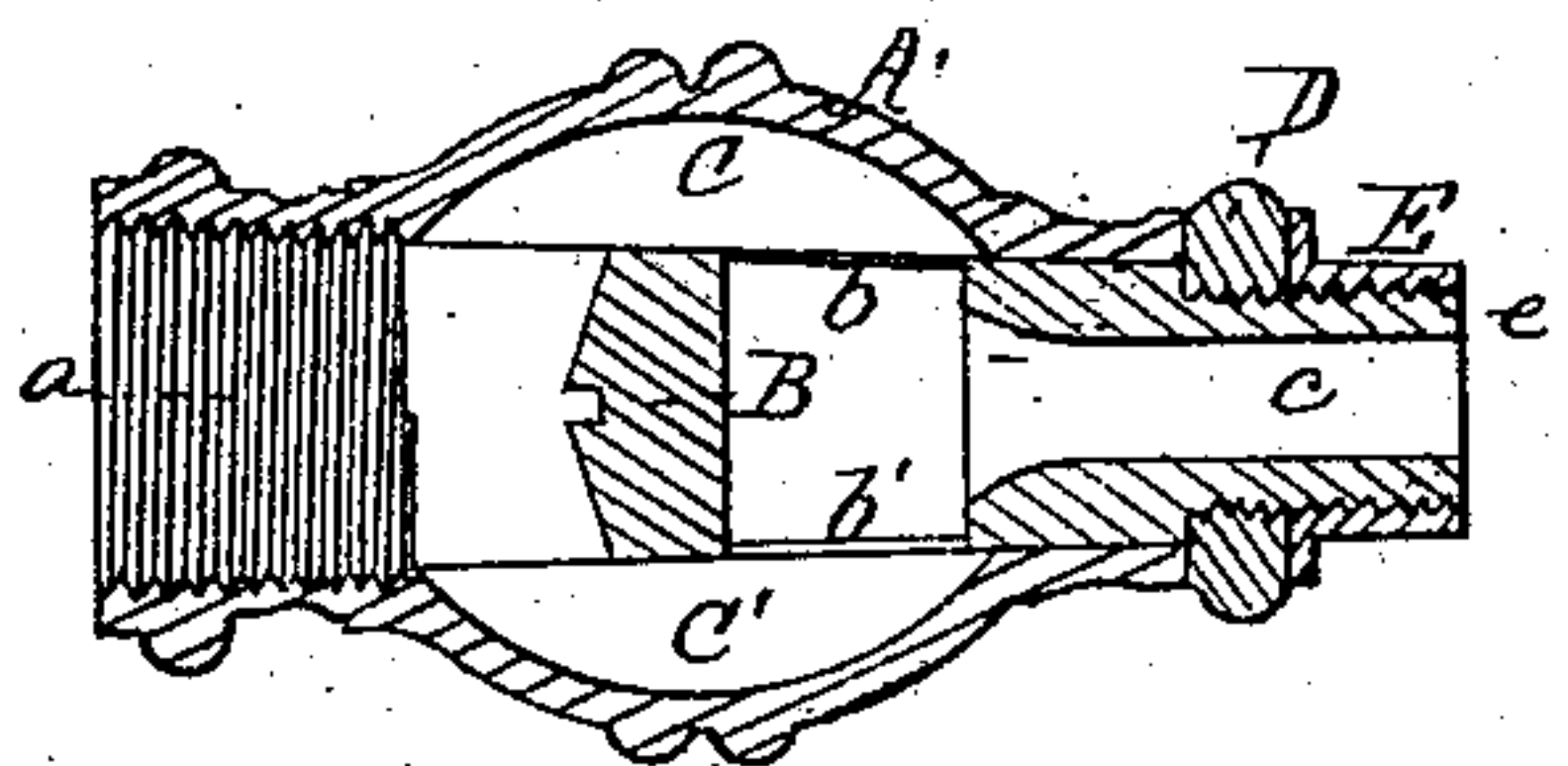


Fig. 4.

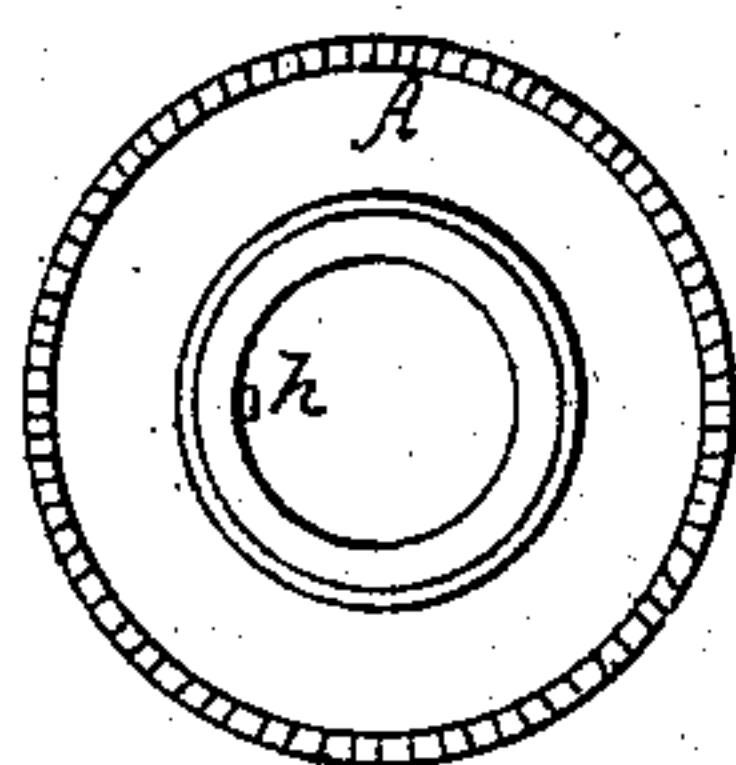
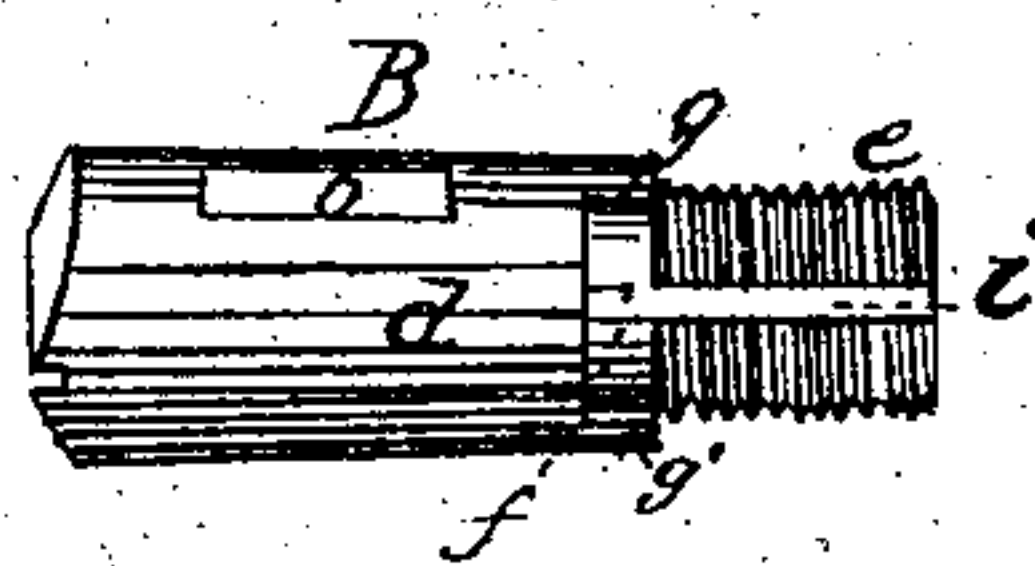


Fig. 3.



Witnesses:

S. N. Piper
J. R. Snow.

Inventor

F. S. Babbitt

by his attorney

R. H. Eddy

United States Patent Office.

FRANCIS S. BABBITT, OF TAUNTON, MASSACHUSETTS.

Letters Patent No. 81,242, dated August 18, 1868.

IMPROVEMENT IN NOZZLES FOR PIPES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL PERSONS TO WHOM THESE PRESENTS MAY COME:

Be it known that I, FRANCIS S. BABBITT, of Taunton, in the county of Bristol, and State of Massachusetts, have invented a new and useful or improved Nozzle for Hose-Pipe, Hydrants, &c.; and I do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 is a side view, and

Figure 2 a longitudinal section of a nozzle constructed in accordance with my invention.

Figure 3 is a side elevation of the screw-plug or valve.

The object of my invention is to so construct the nozzle or discharging-mouth of a hose-pipe or other device for the discharge of water, that, by a simple and effective means, the flowage of water may be either entirely checked or the water be caused to flow out in a solid cylindrical form, or in divergent lines, forming spray, or in a hollow cone, whose base may be of greater or less diameter, as may be desirable, thus performing the functions of the two nozzles ordinarily used, viz, the sprinkler and the solid-stream nozzle.

In the said drawings, A denotes the body portion of the nozzle, which is a hollow tube, made with a tapering bore to receive a tapering screw-plug or valve, B. The large end of the said body has a female screw, *a*, formed in it to screw on or connect with a male screw attached to the hose-pipe or hydrant. Within the said body, and on opposite sides of the bore thereof, I form two long chambers C C', which are to operate in conjunction with two ports *b b'* formed in opposite sides of the screw-plug B, as shown in fig. 2. The said screw-plug has its upper end solid. A passage, *c*, leads from the ports *b b'*, and axially toward and through the smaller end of the plug B. Furthermore, the said screw-plug has its frusto-conical part *d* formed or ground, so as to fit closely to the interior surface of the body A, and make a tight joint therewith. The said plug B also has a screw, *e*, cut on its lower end to receive a milled nut, D, and a friction or check-nut, E, which are arranged as seen in fig. 1. There is also formed on the periphery of the screw-plug a transverse recess or arcal chamber *f*, the same being formed with shoulders or abutments *g g'*, which are to operate with a stud or projection, *h*, formed on the inner surface of the bore of the body A, as seen in fig. 4, which is an end view of the said body. The object of the said stud and chamber is to limit the rotary movements of the said screw-plug. A groove or chamber, *i*, leads from the chamber *f* across the threads of the screw, in manner as shown in fig. 3. The object of such groove is to enable the stud *h* to be placed in its chamber, and the screw-plug to be removed from the body portion whenever it may be desirable.

Having described the construction of my improved nozzle, I will describe its operation.

If we suppose the nozzle to be attached to a hose-pipe communicating with a hydrant or reservoir of water, and we desire to discharge the water in a full and solid stream, we first turn the milled nut D, so as to bring the two ports *b b'* into direct communication with the chambers C C' of the body A. Under these circumstances the water will be discharged from the nozzle in a stream equal to the full capacity of its bore. By turning the said nut a partial revolution, we can so limit the receiving-area of the ports *b b'* that the water issuing from the nozzle will have the form of mist or spray, and, by a further movement of the said nut D, the water may be caused to issue forth in lines more or less divergent, forming a hollow cone of greater or less diameter, as may be desirable, and by a still further movement of the nut D, the ports *b b'* may be closed, whereby the flowage of the water will be entirely checked.

From the above it will be seen that, by the peculiar construction of my improved nozzle, it serves to perform the duties of the two nozzles ordinarily employed, thereby dispensing with the cost of one nozzle, and the trouble of changing the nozzles, as circumstances may require.

I claim an improved hose-pipe nozzle, consisting of the body A, the hollow screw-plug B, the milled nut D, and the check-nut E, the whole being constructed and made to operate together, substantially as above set forth.

I also claim the screw-plug B, as made with the chamber or recess *f*, the same operating in conjunction with the stud or projection *h* disposed on the inner periphery of the body A, in the manner and for the purpose set forth.

FRANCIS S. BABBITT.