

No. 756,161.

PATENTED MAR. 29, 1904.

J. P. FARMER.
ATOMIZER.

APPLICATION FILED JULY 24, 1903.

NO MODEL.

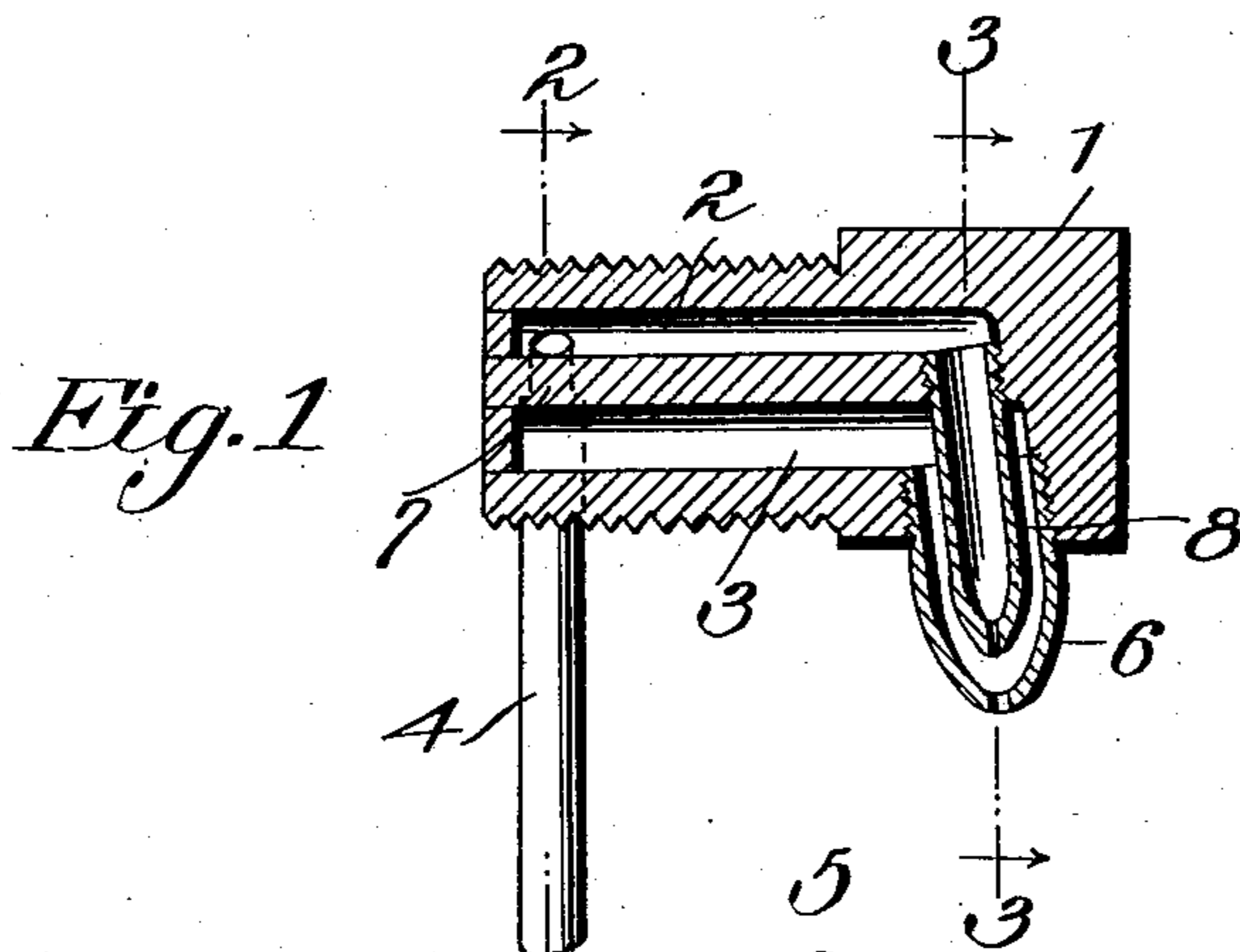


Fig. 5.

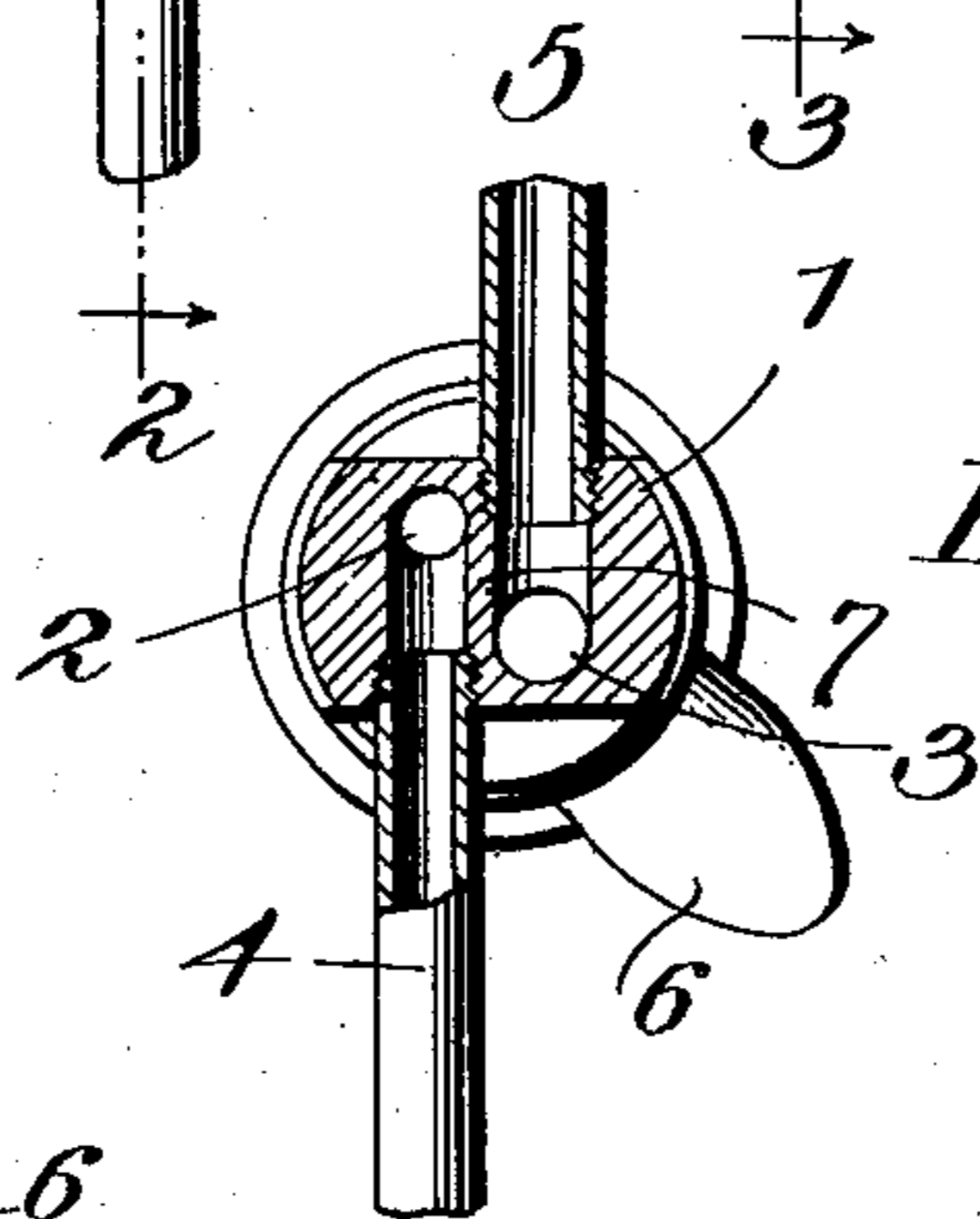
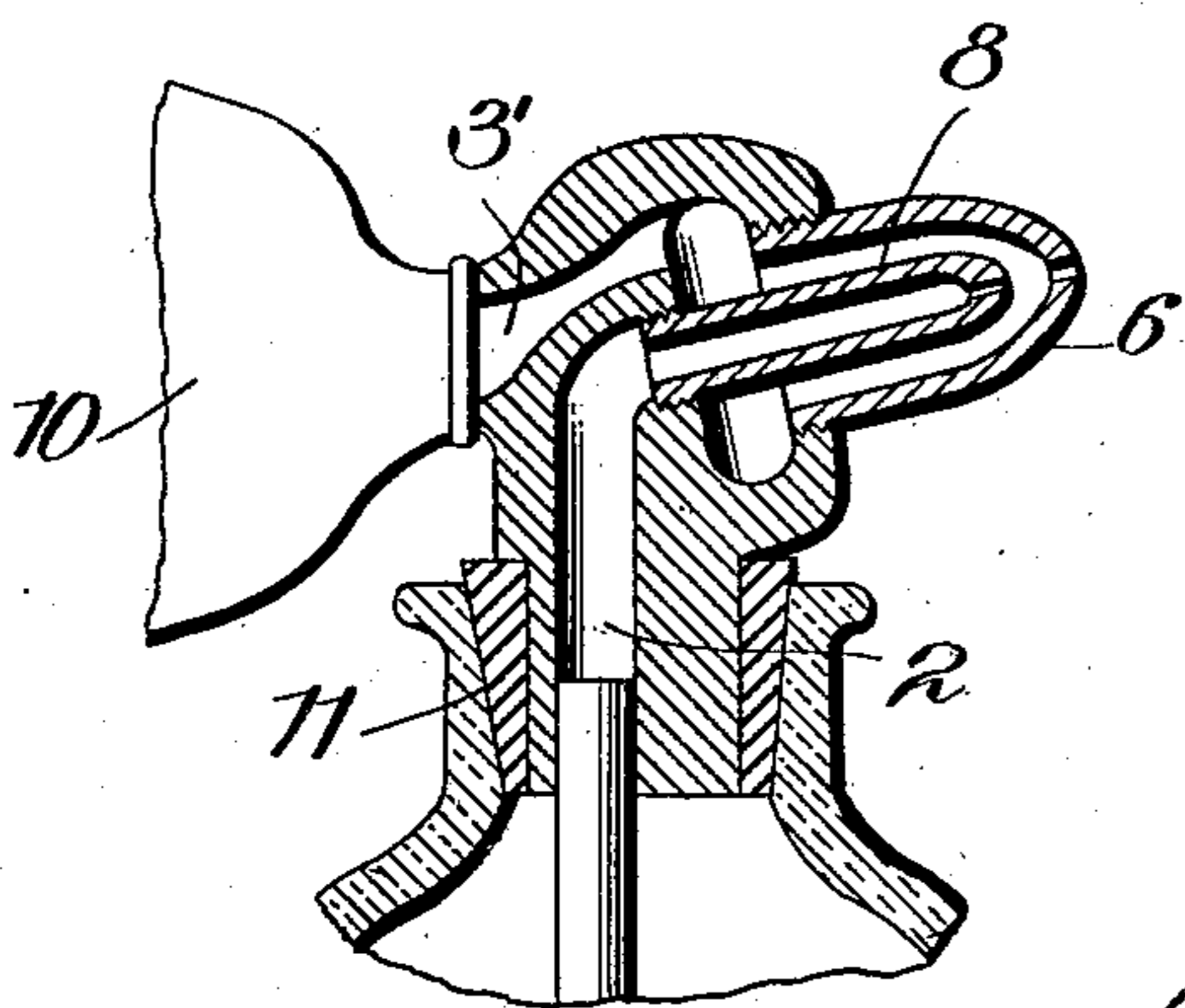


Fig. 4.

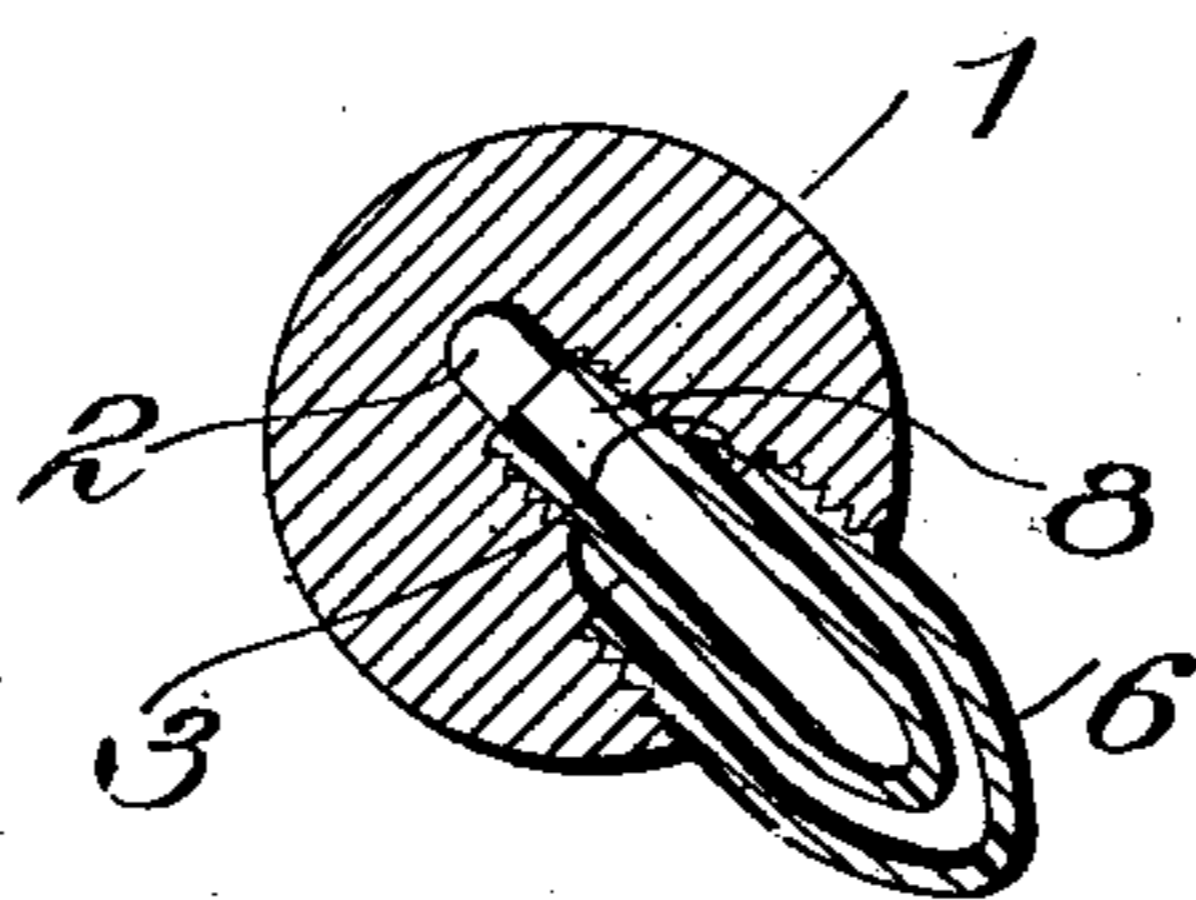


Fig. 3.

Witnesses
E. W. Stewart
John P. Farmer

John P. Farmer Inventor.
by *Chas. Snow*
Attorneys

UNITED STATES PATENT OFFICE.

JOHN P. FARMER, OF PORTLAND, OREGON, ASSIGNOR TO A. F. FLEGEL,
OF PORTLAND, OREGON.

ATOMIZER.

SPECIFICATION forming part of Letters Patent No. 756,161, dated March 29, 1904.

Application filed July 24, 1903. Serial No. 166,866. (No model.)

To all whom it may concern:

Be it known that I, JOHN P. FARMER, a citizen of the United States, residing at Portland, in the county of Multnomah and State of Oregon, have invented a new and useful Atomizer, of which the following is a specification.

This invention relates to atomizers, and has for its principal object to provide a serviceable and efficient device for atomizing water and other liquids.

A further object of the invention is to provide an atomizer of simple construction and so arranged as to provide a novel form of support for the two nozzles for the passage of the liquid and the atomizing fluid.

With these and other objects in view, as will hereinafter more fully appear, the invention consists in the novel construction and arrangement of parts hereinafter described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that various changes in the form, proportions, size, and minor details of the structure may be made without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings, Figure 1 is a longitudinal sectional elevation of an atomizer constructed in accordance with the invention. Fig. 2 is a transverse sectional elevation of the same on the line 2 2 of Fig. 1. Fig. 3 is a similar view on the line 3 3 of Fig. 1. Fig. 4 is a detail perspective view of the outer nozzle detached. Fig. 5 is a transverse sectional elevation of a modified form of nozzle that may be employed in connection with a bottle or similar receptacle for atomizing perfumes and the like.

Similar numerals of reference are employed to indicate corresponding parts throughout the several figures of the drawings.

The device forming the subject of the present invention is designed principally as a moistener for applying water to a letter or package, although it may be employed in any capacity for the atomizing of a liquid by means of air or other fluid under pressure. The body of the atomizer is formed of a block 1, having a pair of substantially parallel pas-

sages 2 and 3, which may be formed by drilling one end of the block and then closing the ends of the passages by means of suitable plugs. The passage 2 is connected to a water-supply pipe 4, and the passage 3 is connected to a source of supply for air or other fluid under pressure. At that end of the block opposite the supply-pipes is a threaded opening for the reception of a hollow nipple or nozzle 6, which communicates with the air-passage 3, and in this nipple or nozzle is a minute opening through which the current of air or steam is forced. The two passages are divided from each other by a wall or partition 7, having a threaded opening for the reception of a nozzle 8, provided with a discharge-opening, and said nozzle extends partly through the nipple or nozzle 6 and is arranged concentric therewith, so that both of the openings will be in alinement.

The body portion or block is preferably provided with screw-threads in order that it may be readily secured in place in a threaded opening formed in a portion of the casing of the machine to which it is attached, the threads also permitting the turning of the block in order to adjust the nozzles at any desired angle.

In the operation of the device air or other fluid under pressure is forced through the pipe 5 and passage 3 to the nozzle 6, passing out through the opening at the end of said nozzle, and in its passage a partial vacuum is formed in the water-nozzle 8, so that the flow of a current of water will be induced through the water-passage and the nozzle, and the water will mingle with the current of air and be forced through the contracted discharge-opening of the nozzle 6 in the form of a fine spray.

The device is of special value for the forcing of small quantities of water onto a surface to be moistened, such as a letter or other article, preparatory to the reception of a stamp or label, and it may also be employed for the spraying of scents or, on a larger scale, for the atomizing of liquids of various kinds for commercial purposes.

In Fig. 5 is illustrated a slight modification of the invention as applied to a bottle or like receptacle for the atomizing of perfumes or

for medical or disinfecting purposes. The liquid passage 2 is substantially the same as previously described, while the passage 3' for the air is led to one side of the block and is
5 connected to an air-bulb 10. The body of the block is suitably shaped to receive an annulus 11, of cork or packing material.

Having thus described the invention, what is claimed is—

10 1. In an atomizer, a pair of concentrically-disposed nozzles, a block to which said nozzles are secured, liquid and fluid passages formed in the block, a partition dividing said
15 passages from each other, and means for securing the inner of said nozzles to the partition.

2. In an atomizer, the combination with a block having independent fluid and liquid passages, a partition separating said passages, an inner liquid-nozzle secured to the partition

and communicating with the liquid-passage, 20 and an outer atomizing-nozzle surrounding the first and communicating with the fluid-passage.

3. In an atomizer, a block having independent air and liquid passages, a partition divid- 25 ing the passages and provided with a threaded opening, a liquid-nozzle having a threaded portion adapted to said opening, and a second atomizing-nozzle partly surrounding the first
30 and having threads adapted to a threaded opening formed in said block.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JOHN P. FARMER

Witnesses:

A. F. FLEGEL,
IVA M. HODGES.