

No. 667,491.

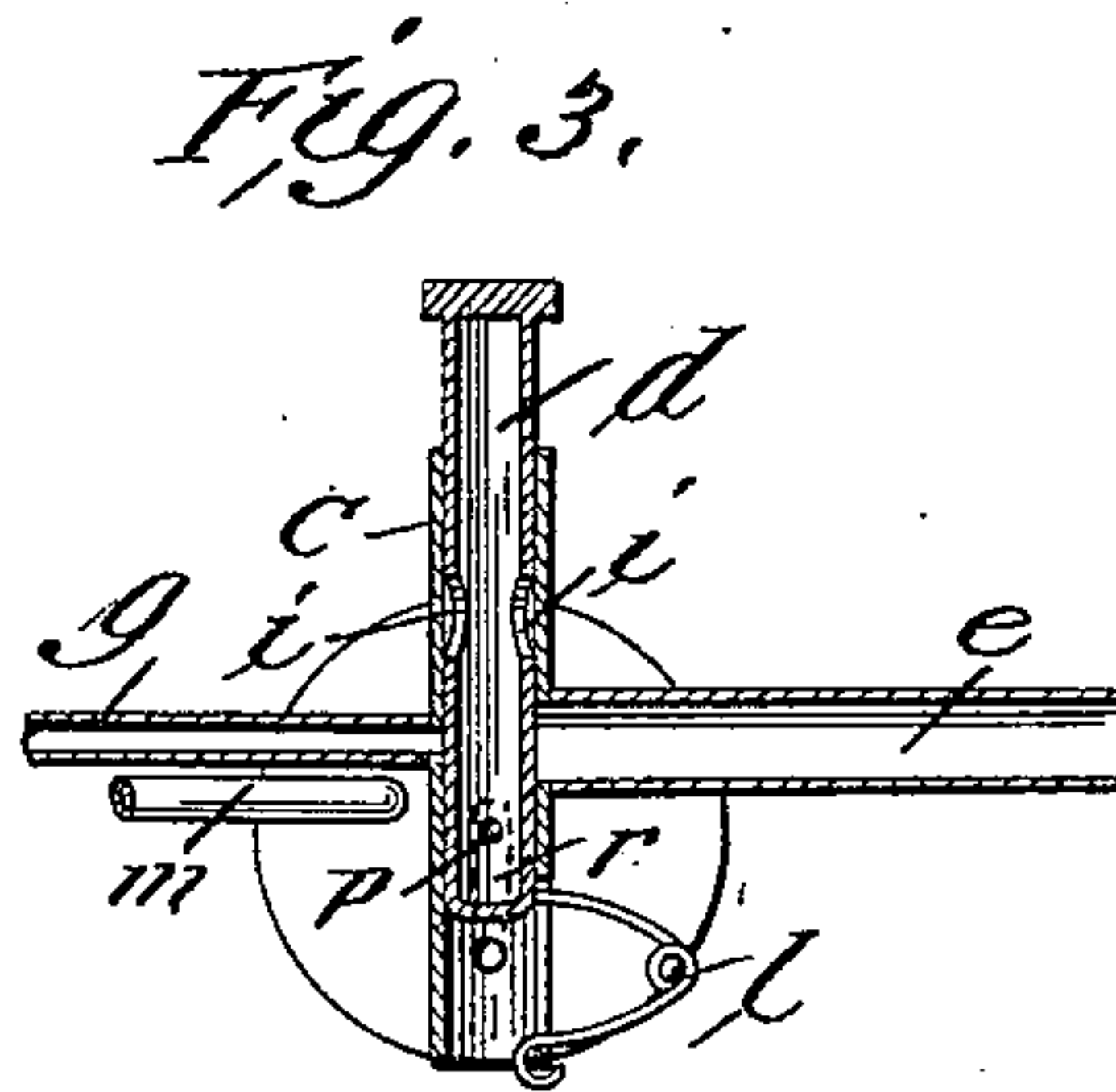
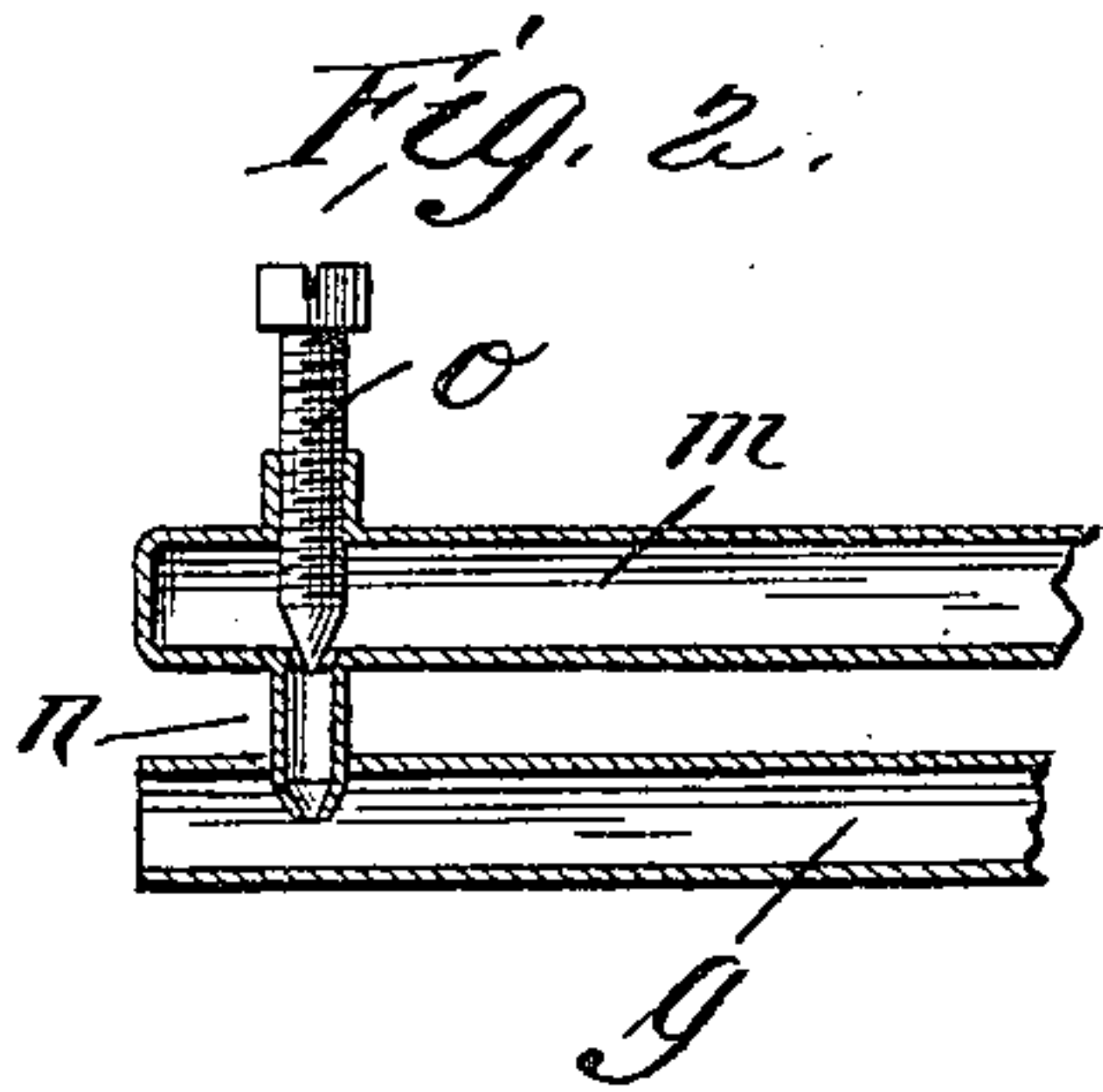
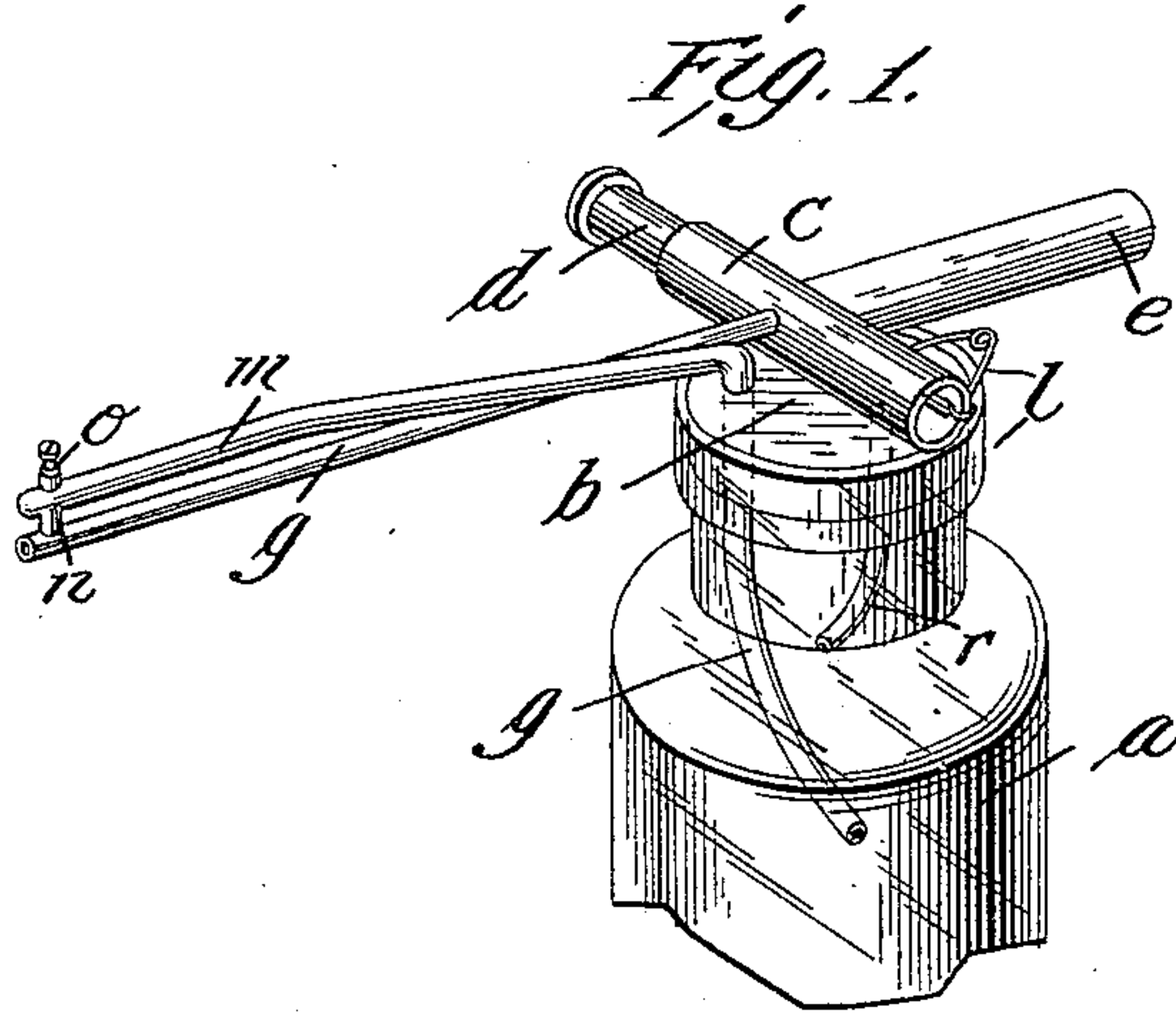
Patented Feb. 5, 1901.

O. H. BRIGHAM.

ATOMIZER.

(Application filed Sept. 25, 1900.)

(No Model.)



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# UNITED STATES PATENT OFFICE.

ORMAN H. BRIGHAM, OF CHATSWORTH, ILLINOIS.

## ATOMIZER.

SPECIFICATION forming part of Letters Patent No. 667,491, dated February 5, 1901.

Application filed September 25, 1900. Serial No. 31,067. (No model.)

*To all whom it may concern:*

Be it known that I, ORMAN H. BRIGHAM, a citizen of the United States, residing at Chatsworth, Illinois, have invented certain new and useful Improvements in Atomizers, of which the following is a specification.

My invention relates to atomizers; and the object thereof is to provide means for supplying the liquid to be sprayed in regulated quantities to the air-tube, which will be readily accessible both for the purpose of regulating the supply and for cleansing the parts should they become clogged.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is an elevation of the device, and Figs. 2 and 3 are detail views.

A receptacle for containing the liquid to be sprayed or atomized is shown herein as an ordinary bottle *a*, into the neck of which the stopper *b*, carrying the various parts of my atomizer, is fitted. Across the top of the stopper a cylindrical valve-case *c* extends, in which a hollow sliding valve *d* is guided. Extending at right angles to the valve-case and in communication with the same, centrally thereof, is a pipe *e*, connecting with a suitable air-supply under pressure. An air-tube *g*, of smaller diameter, leads from the valve-casing from a point directly opposite to the connection of the pipe *e* therewith. The valve is provided with two oppositely-arranged openings *i*, which are adapted to aline with the ends of the pipe *e* and tube *g* to open communication between the same when said valve is pushed in against the tension of the spring *l*, which normally holds said valve with said openings out of alinement. A second tube *m*, extending parallel with tube *g*, passes through the stopper and depends into the receptacle *a*. Near the outer end of the latter tube a short pipe connection *n* is made with

the tube *e*, by which the liquid which passes through the tube *m* is directed into the air-current forced through the tube *e* and so broken up into a spray. To regulate the supply passing through this connection, a needle-valve *o* is provided. This valve being easily accessible, it may be readily removed to permit the parts being cleansed should they become clogged.

A vent-tube *r* extends through the stopper, its upper end opening into the valve-casing and alining with an opening *p* in the valve when the latter is pushed in, so that a supply of air will be fed into the bottle to prevent a vacuum forming therein.

I claim—

1. In combination in an atomizer with the liquid-receptacle and stopper, the valve, and the air-supply pipe, of an air-tube, a liquid-tube closed at its outer end and a valve-controlled connection leading from the liquid-tube into the air-tube in the rear of the discharge end of the latter, substantially as described.

2. The combination in an atomizer with the liquid-receptacle, the stopper, a valve-casing carried thereby, a pipe connection leading to an air-supply, an air-tube opening into said casing, and a valve therein adapted to put said air-pipe and air-tube in open communication, of a liquid-tube running parallel with the air-tube and extending through the stopper into the receptacle, a branch leading from the end of the liquid-tube into the air-tube and a needle-valve controlling the same, substantially as described.

In witness whereof I have hereunto set my hand in presence of two witnesses.

O. H. BRIGHAM.

Witnesses:

CHAS. D. CARY,  
M. H. MCCARTY.