(No Model.)

J. F. CORBLY.

ATOMIZER.

No. 322,908. Patented July 28, 1885.

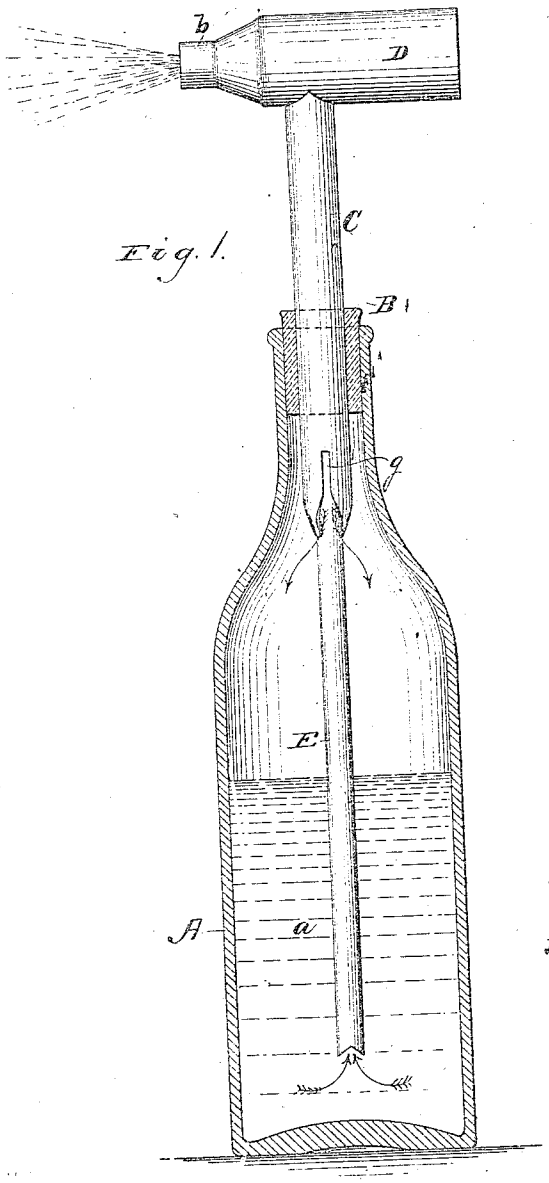


Fig. 1.

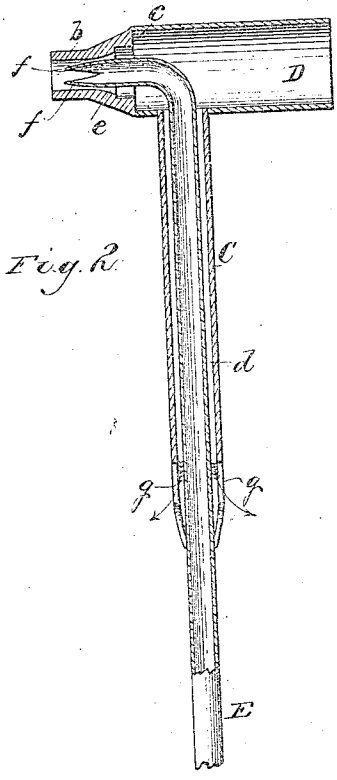


Fig. 2.

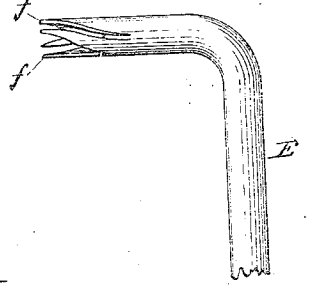


Fig. 3.

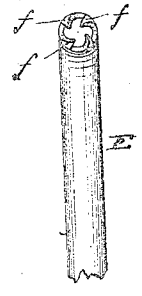


Fig. 4.

Witnesses.

Henry Brodhurst.

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per F. F. Warner.

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UNITED STATES PATENT OFFICE.

JOHN F. CORBLY, OF CHICAGO, ILLINOIS.

ATOMIZER.

SPECIFICATION forming part of Letters Patent No. 322,908, dated July 28, 1885.

Application filed June 1, 1885. (No model.)

To all whom it may concern:

Be it known that I, JOHN F. CORBLY, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful improvements in Atomizers, of which the following, in connection with the accompanying drawings, is a specification.

In the drawings, Figure 1 is a side elevation of my improved atomizer, showing the same as arranged in a bottle containing fluid, the said bottle being shown in section. Fig. 2 is a vertical central cross-section of the atomizer. Fig. 3 is a detail, the same being a side view of the upper end of the interior tube; and Fig. 4 is a front or end view of the part shown in Fig. 3.

Like letters of reference indicate like parts.

A represents an ordinary bottle, and *a* represents the fluid contents of the bottle. B is the cork.

C is a tube passing through the cork B, and D is a horizontally arranged tubular top piece applied to the upper end of the tube C. Both ends of the top piece, D, are open, and one end thereof is contracted, as shown at *b*, and has therein an annular shoulder, *c*. E is a tube arranged within the tube C, and having a smaller diameter than the latter tube, thus leaving between the tubes C and E an air-space, *d*. The upper end of the tube E enters the top piece, D, and is bent over horizontally, and enters the contracted part or end of the said top piece, as is clearly indicated in Fig. 2. The tubes C and E are connected at the lower end of the tube C, by preference, either by soldering or otherwise; but this connection need not be a rigid connection.

The upper end of the tube E, as will be perceived, does not entirely fill the contracted end of the top piece, D, a space, *e*, being left between the said parts. The upper end of the tube E has in it deep spiral cuts or notches *f f*, as is clearly indicated at Figs. 3 and 4, and the lower end of the tube C has in it slits, ports, or openings *g g*.

The device now described I arrange in a bottle by inserting it vertically through the cork, an opening being made therein sufficient to receive the tube C, with sufficient pressure or friction to hold or suspend the atomizer in the bottle, the bottom of the tube E being, by preference, but a little way above the bottom of the bottle.

To use the device, place the large end of the top piece, D, in the mouth and blow into the same. By this means the air, entering the top piece under more or less pressure passes down through the tube C and around the tube E and out of the ports *g g* into the upper part of the bottle, there creating a sufficient degree of air-pressure to force the liquid contents of the bottle up through and out of the tube E. As the fluid or liquid passes out of the upper end of that tube it has a spiral or twisted movement imparted to it, owing to the spirality of the cuts or notches *f f*, and at the same time the air, escaping from the contracted end of the top piece, D, impinges upon the escaping fluid and converts it into spray.

The device now described may be employed either as an atomizer for cologne-bottles, or for sprinkling tobacco or for sprinkling clothes, and for various like or similar purposes. The fluid ejected will be ejected in a comparatively large volume and to a comparatively long distance.

The device is simple in its construction and operation, is cheap and durable.

The device can also be used in spraying flowers, and for disinfecting purposes, with liquid or powder.

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

1. An atomizer consisting of the combination of a tube, E, having in its upper end the spiral cuts or notches *f f*, the tube or top piece, D, having a contracted end entered by the upper end of the tube E, and the outer tube, C, having at or near its lower end the openings or ports *g g*, substantially as and for the purposes specified.

2. The combination, in an atomizer, of the horizontally arranged tube D, open at both ends, the depending tube C, open at or near its lower end, and the interior tube, E, entering the tube D, and bent horizontally at its upper end, so that the said end shall be arranged, substantially as shown, with relation

to the eduction or discharging end of the tube D, substantially as and for the purposes specified.

3. An atomizer in which the upper end of the discharging tube has spiral cuts or notches, substantially as and for the purposes specified.

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

JOHN F. CORBLY.

Witnesses:
HENRY FRANKFURTER,
W. C. HOYER.