

R. H. CALLAN.
 ATOMIZER.
 APPLICATION FILED JUNE 3, 1915.

1,208,475.

Patented Dec. 12, 1916.

Fig. 1,

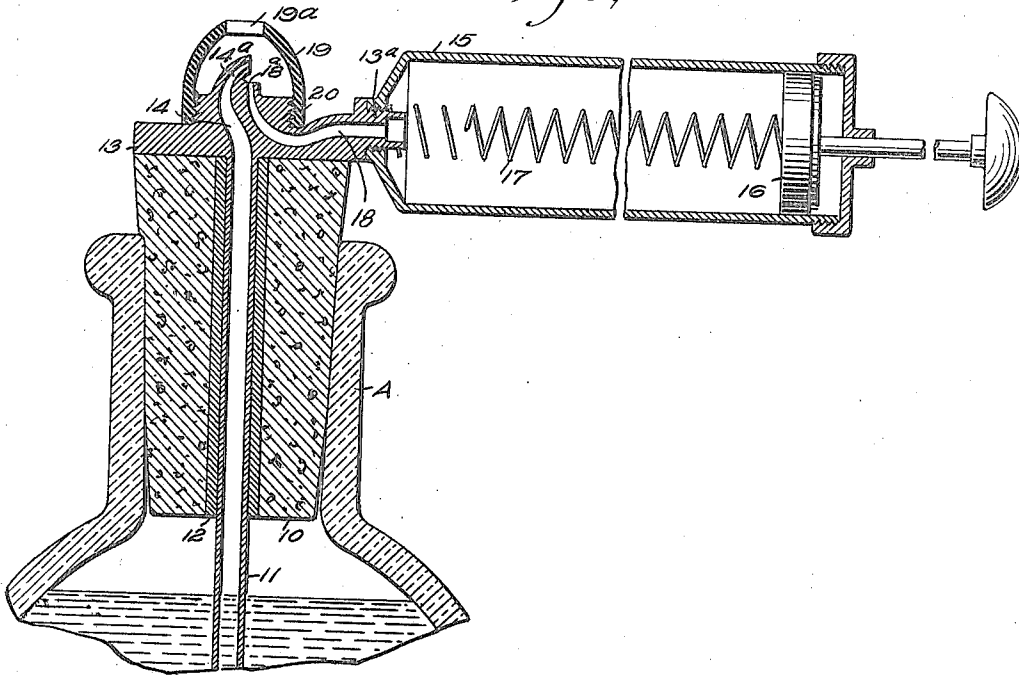
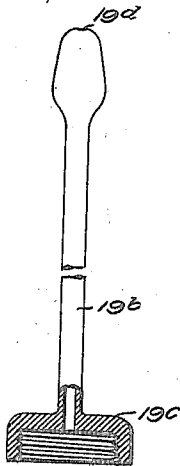


Fig. 2,



WITNESSES

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UNITED STATES PATENT OFFICE.

RAY HUGH CALLAN, OF TRENTON, MISSOURI.

ATOMIZER.

1,208,475.

Specification of Letters Patent.

Patented Dec. 12, 1916.

Application filed June 3, 1915. Serial No. 31,881.

To all whom it may concern:

Be it known that I, RAY HUGH CALLAN, a citizen of the United States, and a resident of Trenton, in the county of Grundy and State of Missouri, have invented a new and Improved Atomizer, of which the following is a full, clear, and exact description.

My invention relates to atomizers for perfumery and the like, and the invention more particularly relates to a stopper, supporting atomizing means, and adapted to constitute a closure for an ordinary bottle adapted to contain perfumery or other material to be atomized.

Objects of the invention are to provide an atomizer adapted for bottles of different sizes within certain limits, and to provide an atomizer improved in various particulars with respect to strength, efficiency and simplicity of construction.

The invention will be particularly explained in the specific description following.

Reference is had to the accompanying drawings forming part of this specification, in which similar characters of reference indicate corresponding parts in all the views, and in which:

Figure 1 is a longitudinal vertical section of an atomizer embodying my invention, part being broken away; Fig. 2 is a sectional side elevation of a different form of nozzle cap from that shown in Fig. 1.

In carrying out my invention in practice in accordance with the illustrated example, a stopper 10 of cork, or other resilient material, is made of tapering form whereby to tightly close the neck of a bottle A of known form. Extending vertically through the stopper 10 is a discharge tube 11, the lower end of which below the stopper 10 is of such a length that it will lie close to the bottom of a bottle in which it is inserted. The said discharge tube 11 is made of bendable metal so that the lower end thereof may be bent to accommodate the device to bottles of different height. In the stopper 10 around the discharge tube 11 is a suitable bushing or cylindrical packing 12.

The discharge tube 11 is formed upon or secured to a cap plate 13 which is applied

to the top of the stopper 10, and has a discharge passage 14 extending therethrough continuous with the discharge tube 11.

To atomize or spray the liquid contents of the bottle A, I employ an air pump of the cylinder and piston type, owing to its durability. The air pump is supported on the cap plate 13 of the stopper, the cylinder 15 having a threaded connection at its forward end with a boss 13^a on the cap plate 13. A piston 16 in the cylinder 15 is adapted to be manually pressed forward against the tension of the spring 17 in the said cylinder beneath the piston. The outlet of the pump is continued through the cap plate 13, the latter having a passage 18 to constitute said continuation of the pump outlet.

It will be seen from Fig. 1, that the terminal 14^a of the discharge passage 14 of the tube 11, extends beyond the terminal 18^a of the pump outlet 18, and said discharge 14^a is deflected laterally in front of the terminal 18^a and substantially in line with the latter, so that air discharged under pressure at 18^a will serve to eject the liquid contents of the bottle A at the deflected terminal 14^a and atomize said contents.

Over the terminals 14^a, 18^a a nozzle cap 19 is revolvably secured. The said cap nozzle is dome-shaped and has a threaded engagement with a boss 20 on the cap plate 13, there being a central discharge orifice 19^a in the nozzle cap approximately in line with the terminals 14^a, 18^a.

In Fig. 2 is a nozzle cap in which an extended stem 19^b rises from a base 19^c adapted to engage the threaded boss 20, as a substitute for the cap 19, the said stem having an orifice 19^d corresponding substantially with the orifice 19^a.

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

In an atomizer, a stopper adapted to close a bottle containing a liquid to be atomized, a cap plate supported on the stopper and formed with a lateral extension at one side of and projecting beyond the stopper, a discharge tube extending through the stopper, said cap plate having a passage forming a continuation of said discharge tube, the cap

being furthermore formed at the upper side
with a laterally bent integral protuberance
through which said passage extends, and an
air pump supported on the cap plate and
5 connected with the lateral extension there-
of, said cap plate having a lateral passage
extending through the lateral extension
thereof and communicating with the pump
outlet, said passage curving upwardly

through said protuberance beneath the end 10
of the first passage.

In testimony whereof I have subscribed
my name to this specification in the presence
of two subscribing witnesses.

RAY HUGH CALLAN.

Witnesses:

LILLIE MARTIN,
L. A. WARDEN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."