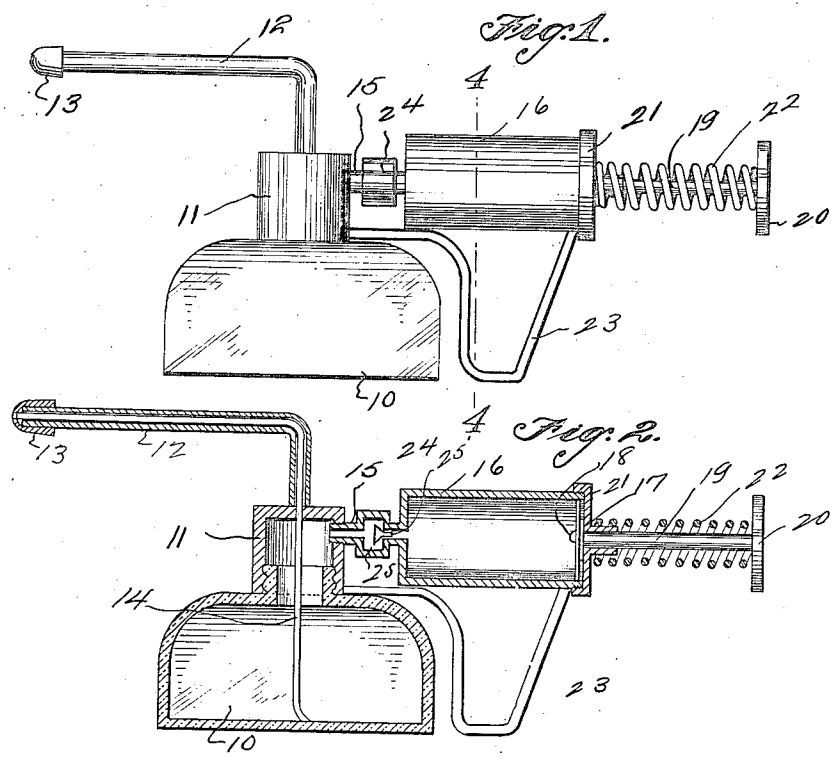
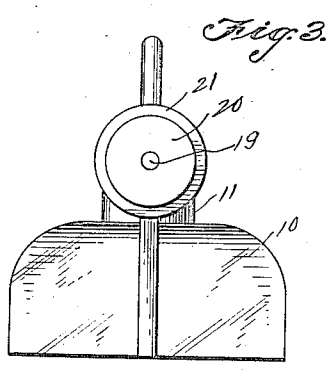
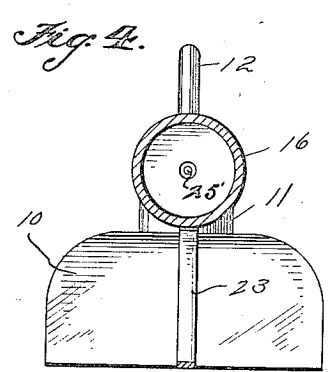


A. L. SAVAGE, JR.
 ATOMIZER.
 APPLICATION FILED APR. 20, 1918.

1,294,835.

Patented Feb. 18, 1919.



Witnesses.
 J. M. Test.

Inventor
 A. L. Savage, Jr.
 By *Charles Chandler*

Attorneys

UNITED STATES PATENT OFFICE.

ALFRED L. SAVAGE, JR., OF NEW YORK, N. Y.

ATOMIZER.

1,294,835.

Specification of Letters Patent.

Patented Feb. 18, 1919.

Application filed April 20, 1918. Serial No. 229,835.

To all whom it may concern:

Be it known that I, ALFRED L. SAVAGE, JR., a citizen of the United States, residing at New York, in the county of New York, State
5 of New York, have invented certain new and useful Improvements in Atomizers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled
10 in the art to which it appertains to make and use the same.

This invention relates to improvements in medicine applicators, and particularly to sprayers or atomizers.

15 One object of the present invention is to provide a novel and improved device of this character which is simple in construction, easy of operation, and which will be strong and durable.

20 Another object is to provide an improved device of this character wherein the air forced into the medicine container will be prevented from being sucked out again, as is the case with the use of the ordinary rubber bulb.

Other objects and advantages will be apparent from the following description when taken in connection with the accompanying drawing.

30 In the accompanying drawing:

Figure 1 is a side elevation of an atomizer made in accordance with my invention.

Fig. 2 is a vertical longitudinal sectional view through the device.

35 Fig. 3 is a rear elevation of the device.

Fig. 4 is a vertical transverse sectional view taken on the line 4—4 of Fig. 1.

Referring particularly to the accompanying drawing, 10 represents a glass or other container for the liquid medicine to be
40 sprayed or atomized. A hollow cap 11 is screwed on the container, and from the upper end of said cap there extends the pipe 12, having the nozzle 13 on the outer end, and through which the medicated air is discharged, in a fine spray. Disposed through
45 the pipe 12, and down into the medicine in the container, is a smaller pipe 14 through

which the liquid medicine is drawn by the air in the pipe 12, and with which it is
50 mixed and discharged through the nozzle in a fine spray. Secured to one side of the cap 11 by means of the nipple 15, is a hollow cylinder 16, in which is disposed a plunger or piston including the metal disk 17,
55 the leather washer 18, and the plunger rod 19, which latter extends through the other end of the cylinder. The said rear end of the piston or plunger rod is provided with a finger button 20, and encircling the said
60 rod, between the end cap 21, of the cylinder, and the said button, is a coil spring 22, which yieldably holds and normally returns the piston to its outermost position in the cylinder. A depending loop member 23 is
65 secured to the lower side of the cylinder and has one of its arms secured to the cap of the container, whereby the cylinder will be properly and strongly supported on the cap. This loop member also serves to assist the
70 person in holding the atomizer, the thumb of the hand being passed through said loop, while the first and second fingers of the hand press inwardly on the button of the plunger rod. Immediately upon the release
75 of the plunger rod, the spring 22 restores the plunger to its normal outer position.

It will be noted that the nipple 15 is formed with an enlarged portion 24 in which is formed a valve seat 25 for the valve
80 25'. This valve moves into closed position toward the adjacent end of the cylinder, whereby the back pressure of the air forced into the cap by the piston will be prevented from returning into the cylinder. Thus the
85 air which is forced into the cap by the piston, will completely discharge itself through the nozzle drawing a portion of the liquid from the container and forming with said
90 liquid, a fine spray.

With a device of this character and construction, the undesirable feature of the air being sucked from the container, when the bulb is released, is obviated, and greater efficiency in the atomizing of the liquid produced. Furthermore, the fact that the air

forcing device is formed of metal is conducive to greater strength and greater durability.

What is claimed is:

- 5 An atomizer including a receptacle for liquid medicament, a hollow cap on the receptacle, an atomizing nozzle connected to the cap, a cylinder mounted on the cap and having a spring returned piston, a handle
10 member connecting the cylinder and cap, a nipple between the cylinder and cap, and an

outwardly closing valve in said nipple whereby the compressed air forced through the cap by the piston into the receptacle is prevented from return into the cylinder. 15

In testimony whereof, I affix my signature, in the presence of two witnesses.

ALFRED L. SAVAGE, JR.

Witnesses:

PATRICK SIMONS,
ARTHUR COSTA.