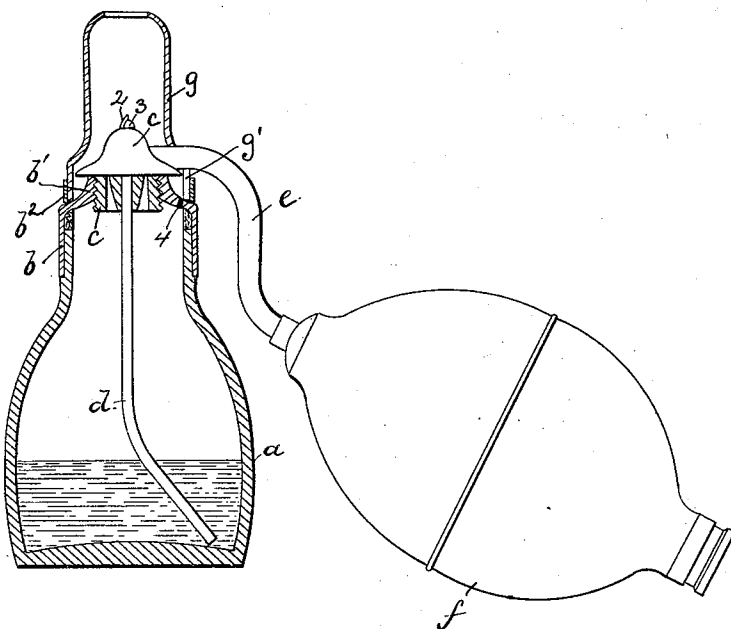


(No Model.)

R. LOCKWOOD.
ATOMIZER.

No. 478,118.

Patented July 5, 1892.



WITNESSES
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UNITED STATES PATENT OFFICE.

RHODES LOCKWOOD, OF BOSTON, MASSACHUSETTS.

ATOMIZER.

SPECIFICATION forming part of Letters Patent No. 478,118, dated July 5, 1892.

Application filed March 26, 1892. Serial No. 426,519. (No model.)

To all whom it may concern:

Be it known that I, RHODES LOCKWOOD, of Boston, county of Suffolk, State of Massachusetts, have invented an Improvement in Atomizers, of which the following description, in connection with the accompanying drawing, is a specification, like letters and figures on the drawing representing like parts.

This invention has for its object to improve the construction of atomizers, whereby an atomizer of ordinary construction, in addition to the general uses to which it may be applied, may be especially adapted for use as a nasal atomizer when desired for spraying oil and other liquids.

The atomizer to which my invention is applied is one of the many forms now upon the market, it consisting of a bottle having rigidly secured upon its neck a collar the upper end of which is screw-threaded internally, and a cap or stopper made with an externally-screw-threaded portion adapted to fit the said internally-screw-threaded collar, and atomizing-orifices supported by said cap or stopper, which communicate with or form a part of the liquid and air tubes.

In accordance with this invention I have secured upon the said rigidly-secured collar at or near its outer edge a flange and have provided a cylindrical nozzle, which is adapted to be placed upon said collar, fitting snugly within the flange thereon, said nozzle being cut away or recessed at its lower edge to astride the air-tube when placed within said flange. The upper or outer end of said nozzle is shaped to enter the nostril. When the nozzle is thus placed in position upon the collar, it completely incloses within it the cap or stopper and atomizing orifices or nozzles borne by it, so as to form a spray-receiving chamber above said atomizing-orifices; but when desired said nozzle may be removed—as, for instance, to cleanse the orifices or other parts or to enable the atomizer to be used for other purposes. The usual air hole or vent is provided to prevent the formation of a vacuum in the bottle, it being herein made in the collar close to the inside of the detachable nozzle.

The drawing shows in vertical section an atomizer embodying this invention, the air-for-

ing device, however, being represented in elevation.

The bottle *a*, collar *b*, rigidly secured to the neck of said bottle by cement or otherwise and having an internally-screw-threaded upper end portion, as at *b'*, the cap or stopper *c*, having an externally-screw-threaded portion *c'* to turn in the screw-threaded portion *b'* of the collar, the atomizing orifices or nozzles 2 3, secured to said cap or stopper *c* and communicating with or formed as a part of the liquid-tube *d* and air-tube *e*, and the air-forcing device *f* are all as usual in an atomizer now upon the market. An annular flange *b*² is secured to the top of the rigidly-secured collar *b* at its outer edge, and a nasal nozzle *g*, cylindrical in form, is provided, the lower end of which is of suitable size to fit snugly within said annular flange *b*² and the upper end of which is shaped to enter the nostril, said upper end having a suitable outlet. The lower edge of the nozzle *g* is cut away or recessed, as at *g'*, sufficiently to receive the air-tube *e* when placed down upon the collar within the flange *b*². This nozzle *g* is detachable and may be removed for the purpose of cleaning the atomizing orifices or nozzles 2 3 should they become clogged, which, it will be understood, frequently happens, also for removing any deposits from the cap or collar or from the interior of the nozzle or when desired to use the atomizer for other purposes. A hole 4 is made in the collar *b*, which serves as an air hole or vent for the bottle, thereby preventing the formation of a vacuum therein, and said hole also serves as a return-passageway for the drip which may accumulate.

The atomizer herein shown I deem superior to other nasal atomizers known to me, because not only can the atomizing orifices or nozzles be easily cleansed, but the entire interior of the chamber in which the spray condenses can also be cleansed.

I claim—

In an atomizer, the combination of the following instrumentalities: the bottle *a*, the collar *b*, fixed upon its neck, having the vent 4, the cap or stopper *c*, inserted in said collar, atomizing-orifices 2 3, secured to said cap or stopper *c*, the liquid-tube *d*, extending down

from said cap or stopper into the bottle, the
air-tube *e*, projecting outwardly from said cap
or stopper, and the air-forcing device *f*, con-
nected thereto, the annular flange *b*², secured
5 to the top of said collar *b* at its outer edge,
and the nasal nozzle *g*, detachably placed
within said annular flange *b*² and entirely in-
closing the cap or stopper, and atomizing-ori-
fices which are secured thereto, said nozzle
10 being cut away or recessed at its lower edge,

as at *g'*, to astride the air-tube when placed
within said flange, all substantially as and for
the purposes set forth.

In testimony whereof I have signed my
name to this specification in the presence of 15
two subscribing witnesses.

RHODES LOCKWOOD.

Witnesses:

BERNICE J. NOYES,
LUCY F. GRAVES.