(No Model.)

A. FROIDEVAUX.

ATOMIZER.

No. 562,763. Patented June 23, 1896.

Fig. 1.

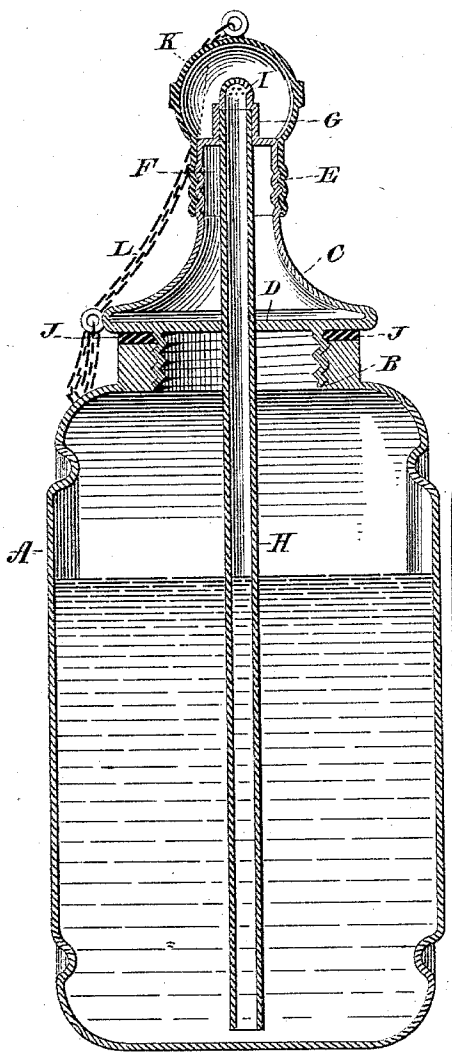


Fig. 2.

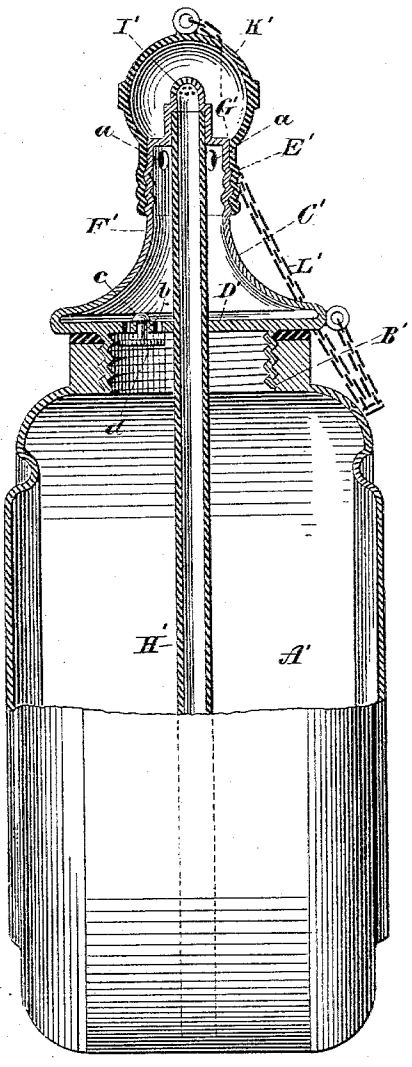
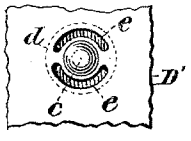


Fig. 3.



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ATOMIZER.

SPECIFICATION forming part of Letters Patent No. 562,763, dated June 23, 1896.

Application filed February 17, 1896. Serial No. 579,510. (No model.)

To all whom it may concern:

Be it known that I, ARNOLD FROIDEVAUX, residing at the city of New York, in the county and State of New York, have invented certain new and useful Improvements in Perfume-Sprayers, of which the following is a full, clear, and exact description.

My invention relates to improvements in perfume-sprayers, and has for its object more particularly to provide a neat, simple, and efficient apparatus which may be conveniently carried upon the person, and from which the contained perfume may be forced in the form of a spray when the body of the receptacle is compressed.

The object above set forth I am enabled to attain by means of my invention, which consists in the novel details of construction and the combination, connection, and arrangement of parts hereinafter more fully described, and particularly pointed out in the claim.

In the accompanying drawings, forming part of this specification, wherein like letters of reference indicate like parts, Figure 1 is a central vertical section of my improved apparatus. Fig. 2 is a similar view of a modification, and Fig. 3 is an enlarged detail plan view of the valve shown in Fig. 2.

In Fig. 1 of said drawings I have shown an apparatus whereby a spray may be intermittently produced. In said figure A designates the compressible receptacle, which may be made of metal, rubber, or other suitable material in any desired form, and provided with a screw-threaded opening B therein. C is a cone-shaped screw-plug adapted to fit in said opening, and provided at its base with a horizontal partition D and near the top with screw-threads E, above which is located the nozzle F of the sprayer, consisting of the contracted portion forming upon its inner side a socket G, having firmly fitted therein a pipe H, which extends downwardly through the partition D into the receptacle A. I designates the rose formed at the extreme top of the nozzle F, directly above the upper end of the pipe H. J is a rubber gasket interposed between the top of the receptacle and the flange of the nozzle, and K is a screw-cap for said nozzle, which is held attached thereto by a chain L.

To cause the perfume to issue from the rose I, it is simply necessary to successively compress the body of the receptacle, which will cause the liquid contained therein to be forced into the pipe H and issue intermittently from the rose I.

In Fig. 2 I have shown an apparatus whereby a continuous spray may be produced by the successive compressing of the body of the receptacle. In said figure A′ designates the receptacle having an opening B′ therein, into which is fitted the plug C′. This plug is constructed similar to that shown in the preceding figure with the exception of the nozzle F′, which is provided immediately above the screw-threads E′ with a number of small apertures *a*, and the partition D′, which is provided with a valve consisting of the stem *b*, provided at its upper end above the partition D′ with a head *c*, and at its lower end below the said partition with a valve-face *d*, and located in the partition D′ to each side of the stem *b* are passages *e e*. K′ is a screw-cap for the nozzle F′, which is held attached thereto by a chain L′.

After the cap K′ has been removed and the body of the receptacle A′ compressed the valve-face *d* will be pressed firmly against its seat and thereby seal the passages *e e* therein. At the same time the liquid will be caused to rise in the pipe H′ and issue in the form of a spray from the rose I′. When the pressure upon the receptacle is relaxed, the valve-face *d* will resume its normal position and open the passages *e e* and thereupon the air will again be permitted to enter the receptacle by way of the apertures *a* in the nozzle and the valve-passages *e e*. With the next compression of the receptacle A′ the valve-face *d* will again be pressed against its seat and the operation above described be repeated, thereby causing a continuous spray to issue frome the rose I′.

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

The combination with a compressible receptacle having a screw-threaded opening therein, the screw-plug C′ for said opening compris-

ing the hollow, cone-shaped nozzle having the horizontal partition D′ therein provided with passages *e*, the valve-face *d* for said passages supported by said partition below the passages *e*, by the stem *b*, the contracted portion near its top forming the interior socket G′, air-vents *a*, in said nozzle beneath said contracted portion, and the rose I′ above said contracted portion, a pipe H′ secured within the socket G′ extending downwardly through the partition D′ and into the receptacle, and the screw-cap K′ for said nozzle, held attached thereto by the chain L′, substantially as specified.

Signed at the city of New York, in the county and State of New York, this 15th day of February, 1896.

ARNOLD FROIDEVAUX.

Witnesses:

GUSTAVE DIETERICH,

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