(No Model.)

W. KENNISH.

ATOMIZER.

No. 282,090. Patented July 31, 1883.

Fig. 1.

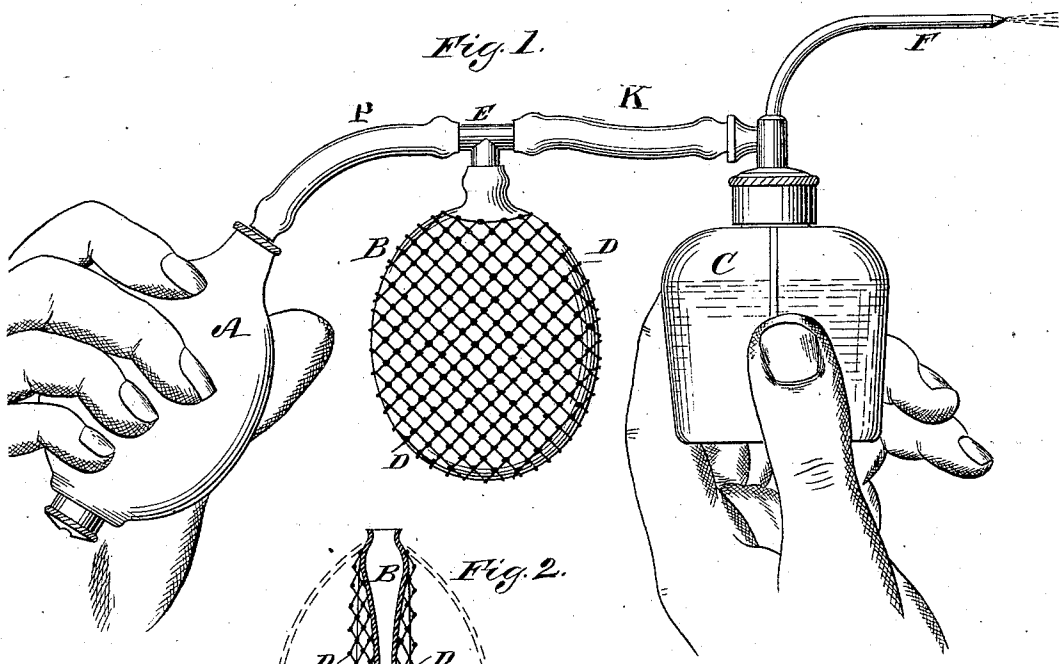


Fig. 2.

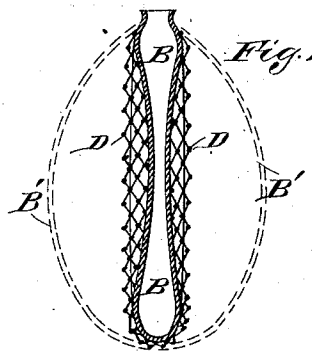
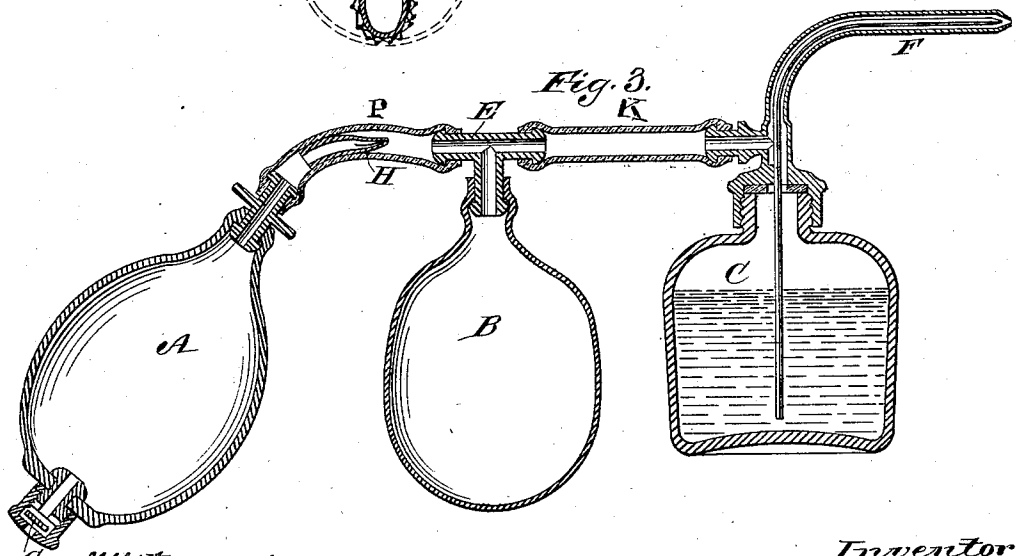


Fig. 3.



Witnesses:
Henry F. Parker
Edwin C. Parker

Inventor:
Wm Kennish.

N. PETERS. Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

WILLIAM KENNISH, OF NEW YORK, N. Y.

ATOMIZER.

SPECIFICATION forming part of Letters Patent No. 282,090, dated July 31, 1883.

Application filed March 29, 1883. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM KENNISH, of New York, in the county of New York and State of New York, have invented an Improvement in Atomizers, of which the following is a full and exact description, reference being had to the accompanying drawings.

The object of my invention is to supply atomizers with an air cushion or reservoir of such form as to give the best result in producing a continuous spray without increasing the size of the package now used for atomizers producing only an interrupted spray.

In Figure 1 of the drawings accompanying, B represents a bag of pure india-rubber, whose normal state is to be collapsed or flat, as shown in Fig. 2. It is connected with the air-passage by a three-way coupling, E, of metal, ivory, or other suitable substance. A pliable tube, K, connects this three-way coupling with the atomizing-tube, and a similar tube, P, connects it with the bulb A. In this state it can be readily packed in the same space as a single-bulb atomizer.

In Fig. 2 the dotted lines B′ B′ indicate the form of the bag when expanded by pressure of air from the bulb.

The operation is as follows: The apparatus being in the condition of Fig. 1, the bulb A is compressed by hand, when its inclosed air is forced through valve H, Fig. 3, coupling E, and tube K to the atomizing-tube F; but the supply of air being faster than the atomizing apparatus can use it, the air-bag B receives the surplus, and at each succeeding compression of the bulb receives more until it is distended, as shown by dotted lines in Fig. 2. During the intervals of compression of bulb A the condensed air in the bag B will continue the pressure, through tube K, to the atomizing-tube, thus maintaining a continuous spray.

The expansion of the air-bag B is effected, first, by the air-pressure changing its form from being flat to a sphere or oval, and, second, by stretching the material of which it is composed. The contraction of the bag will not only be, as in all air-bulbs used for this purpose, to the extent of the natural contraction of the material, but further to contract the form until it recovers its normal shape, as in Fig. 2, thus continuing the air-pressure upon the atomizing-tube longer than if its normal or permanent form were spherical.

Fig. 3 is a section of the complete apparatus.

D, Figs. 1 and 2, is a net, made of silk or other fiber, surrounding the bag to limit its expansion.

I do not claim any particular form of atomizing-tube or liquid-receptacle, as my invention is applicable to many of the forms now found in the trade.

I claim—

In an atomizer, the combination of the usual valved bulb, A, with the normally flat air-reservoir bulb connected to the main connecting-tube between the bulb A and the liquid-vessel.

WM. KENNISH.

Witnesses:
T. S. BUCK,
EDW. P. POLHEMUS.