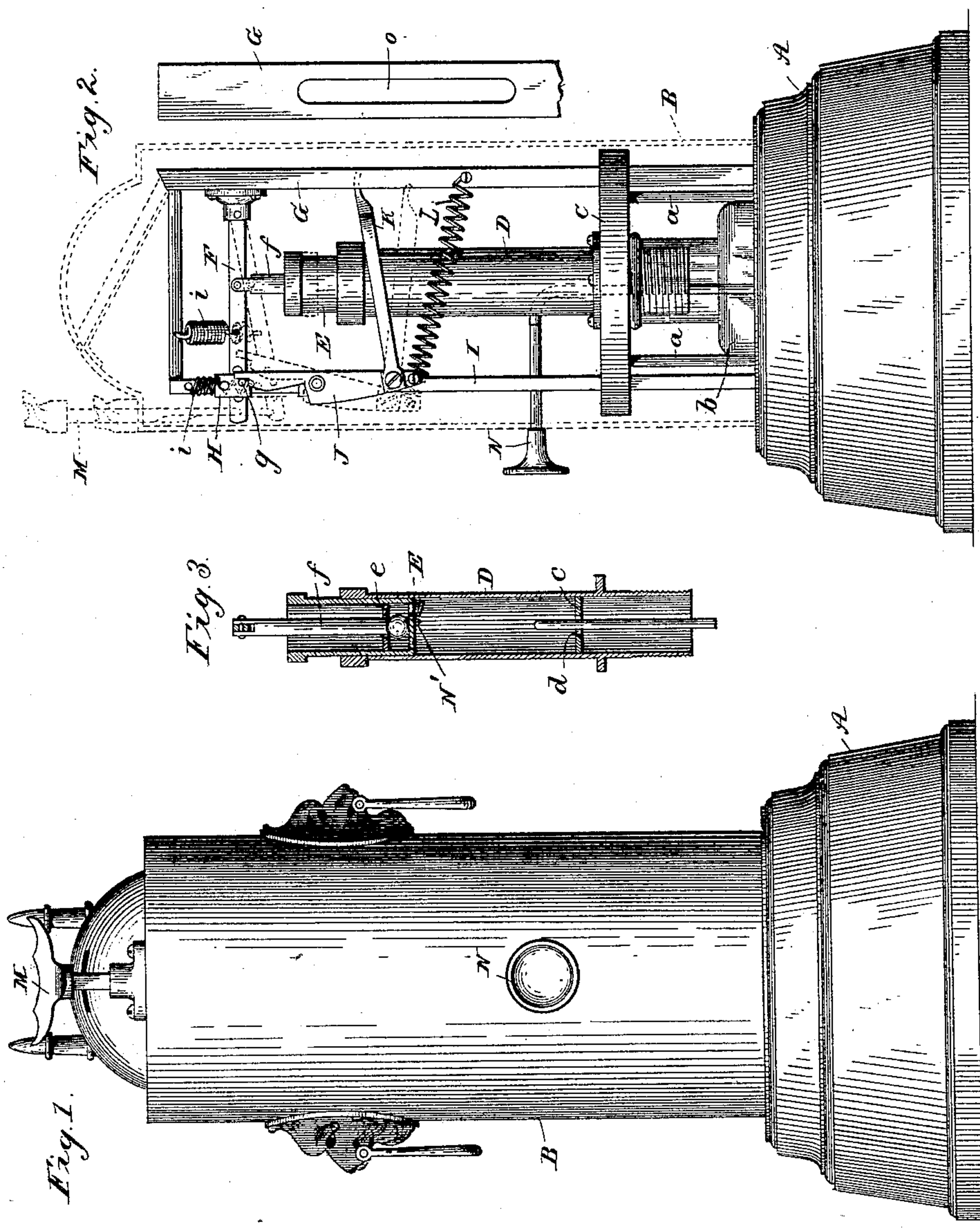


(No Model.)

F. W. BROOKS.  
COIN OPERATED PERFUME EJECTOR.

No. 427,967.

Patented May 13, 1890.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

FRANKLIN W. BROOKS, OF NEW YORK, N. Y.

## COIN-OPERATED PERFUME-EJECTOR.

SPECIFICATION forming part of Letters Patent No. 427,967, dated May 13, 1890.

Application filed January 9, 1890. Serial No. 336,396. (No model.)

*To all whom it may concern:*

Be it known that I, FRANKLIN W. BROOKS, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Coin-Operated Perfume-Ejectors; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to certain new and useful improvements in coin-operated spraying devices; and it consists, substantially, in such features of arrangement, construction, and combinations of parts as will hereinafter be more particularly described, and pointed out in the claims.

The object of the invention is to provide a neat and simple machine so constructed and arranged interiorly as that, on depositing a coin within, the mechanism thereof will be caused to eject a spray of perfumery through a suitable nozzle leading from the fluid-reservoir located inside, substantially as will hereinafter more fully appear when taken in connection with the accompanying drawings, wherein—

Figure 1 is a side view of the machine as it appears when closed and locked ready for use. Fig. 2 is a side view of the interior operating mechanism, by which the operation of the machine will be fully understood, the casing or cover being shown in dotted lines, and the positions the parts assume when a coin is deposited also being shown in dotted lines. Fig. 3 is a vertical sectional view of the plunger-tube, so as to more clearly indicate construction thereof, as well as the connection between the plunger and the lever by which the latter is actuated through the medium of the push button or rod.

In carrying my invention into effect I construct the machine with a suitable base, extending upwardly from which are suitable rods, which support a ring, into which the lower end of a centrally-arranged plunger-tube is received and held. The lower end of said plunger-tube is screw-threaded to receive the screw-threaded neck of a small reservoir for containing the perfumery, and located or arranged within the lower part of

the tube is a valve-opening, through which the column of air contained within the tube is forced, so as to expel or eject a spray of perfumery through the nozzle which enters the side of the machine and extends downwardly within the reservoir.

Contained within the plunger-tube at the top is a suitable plunger, which is supported by and operated through the medium of a horizontal lever having its fulcrum on one side of the chute or conduit into which the coin for operating the machine is placed. The said chute or conduit coincides or communicates with a suitable opening or chute formed in the top of the machine, and said conduit also has its two sides cut out to form a slot or guide for the end of the trip-lever, which releases the plunger-lever through the action of the coin falling through the chute, thus permitting the plunger to be forced down and the spray ejected. The plunger-lever is held against movement normally by means of a dog pivoted to one side of a vertical upright or post, and which engages with a pin or stud projecting from a slide carried by the free end of the plunger-lever and moving on the said upright, the lower end of said dog being the fulcrum of the trip-lever.

Suitable springs are employed to restore the several parts to their original locked positions after being operated, all as will hereinafter be more particularly pointed out on reference to the drawings by the several letters marked thereon, and wherein—

A represents the base of the machine, and B the outside casing or cover therefor, the appearance of the machine when in use being better indicated at Fig. 1.

C represents a ring or band that is supported horizontally a suitable distance above the base and upon the same by means of the posts *a a*, which ring receives and supports the lower end of a vertical plunger-tube D, as shown. The lower end of the plunger-tube is screw-threaded to receive the screw-threaded neck of the bottle or reservoir *b*, which contains the fluid or perfumery, and located within said tube at or near the bottom is a disk *c*, having an opening *d*, through which the nozzle-stem passes, as shown, and through which also air is forced upon top of the fluid in the bottle, so as to expel the fluid through



the ejector in a spray, the operation of which being obvious when it is understood that the plunger E, located in the upper end of the tube, is forced downward after its operating-  
5 lever has been released through the action of a coin falling through the conduit or chute.

The plunger E consists of a suitable cup-shaped device, as shown, and interiorly of which is secured a disk e, which receives the  
10 stem f loosely, (see Fig. 3,) the said stem being in turn connected to the horizontal lever F, which has its fulcrum on the side of the coin-chute G, as shown. The opposite end of this lever is connected with a sleeve or slide  
15 H, which moves or works on the upright I, and which is formed or provided with a projection or stud g, which is engaged by the notched upper end of a dog J, pivoted to the side of said upright I, (see Fig. 2,) and which  
20 dog prevents the plunger being forced down until the tripping thereof is effected by the falling coin.

Secured to the lower end of the dog J and inclining slightly upward is a trip-lever K,  
25 the end of which curves inwardly and enters a guide or slot o cut in the sides of the chute, so that when a coin is deposited in the chute the end of said lever will be tripped, thus releasing engagement of the several parts and  
30 permitting of the machine being operated. A spring L, connected to the chute and dog, operates to restore the latter, and springs i i operate in a like manner to restore the slide H and horizontal lever F.

35 The manner of operating the plunger E is by means of a push-rod M, working through the top of the casing, the same having its lower end normally resting upon top of the free end of the lever, and it is obvious that  
40 after the engagement of the dog is released by pressing the push-rod downwardly the plunger will be sent downward by virtue of its connection with the horizontal lever, and thus will a spray of perfumery be ejected  
45 from the nozzle N, entering the side of the machine, as shown, and extending down into the bottle or reservoir b.

It will be observed on reference to Fig. 3 that the openings in both the disk e of the  
50 plunger-tube and the disk e of the plunger are enlarged, while the plunger-head itself is provided with a downwardly-opening valve, which closes on depressing the plunger, and

consequently compresses the air within the tube, so as to force the liquid perfume out 55 through the nozzle. On withdrawing the plunger upwardly again the pressure of the external air opens the valve and permits of the ingress of an additional quantity to maintain the normal atmospheric pressure. 60

The base of the machine, being hollow, serves as a till or receptacle for the coins as they are deposited, and it may be added that access to the interior thereof may be had through an opening in the bottom closed by any suitable 65 door and lock.

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

1. In a coin-operated spraying-machine, the 70 combination, with a suitable reservoir, of a plunger-tube provided with a partition or disk e, having enlarged opening d, a plunger working through said opening, having a valve, and having a disk also provided with enlarged 75 opening, a lever for operating the plunger, a spraying-nozzle, and a push-rod for operating the lever, substantially as described.

2. In a coin-operated spraying-machine, the combination, with the plunger and the lever 80 for operating the same, of the slide moving on the upright and attached to the lever, and the push-rod resting upon the slide, substantially as described.

3. In a coin-operated spraying-machine, the 85 combination, with the plunger and the lever for operating the same, of the slide moving on the upright and attached to the lever, the push-rod and the springs for restoring said lever and slide, substantially as described. 90

4. In a coin-operated spraying-machine, the combination, with the horizontal lever and the slide attached to said lever and provided with the stud or projection, of the dog or 95 dent normally engaging said stud, the coin-chute having the slot or guide, and the trip-lever attached to the lower end of the dog and extending into the slot or guide, the said lever adapted to be tripped to release the dog by a falling coin, substantially as described. 100

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

FRANKLIN W. BROOKS.

Witnesses:

E. EVERETT ELLIS,  
D. G. STUART.