(No Model.)

J. McGEARY.

INHALER.

No. 377,571. Patented Feb. 7, 1888.

FIG-1

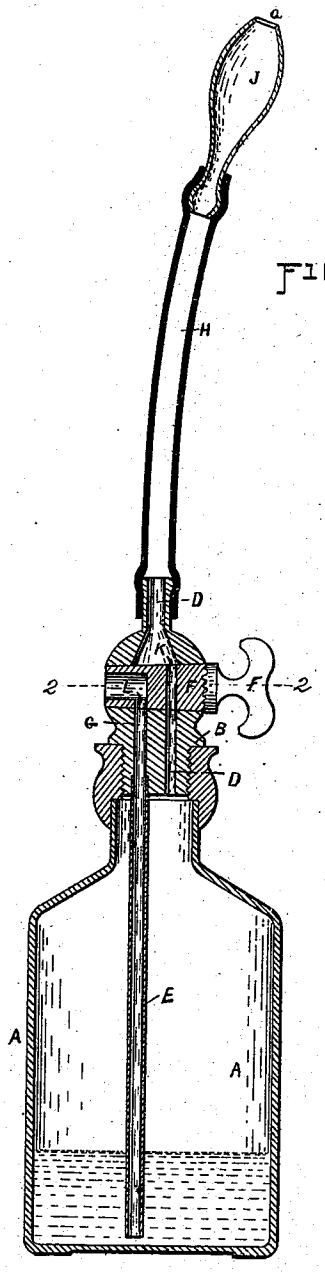
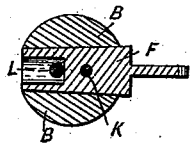


FIG-2



Witnesses
J. W. Peck.
Francis M. Brown.

Inventor.
James McGeary.
by his Attorneys
Brown Bros

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

UNITED STATES PATENT OFFICE.

JAMES McGEARY, OF BOSTON, MASSACHUSETTS.

INHALER.

SPECIFICATION forming part of Letters Patent No. 377,571, dated February 7, 1888.

Application filed December 2, 1886. Serial No. 220,478. (No model.)

To all whom it may concern:

Be it known that I, JAMES McGEARY, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Inhalers and Atomizers, of which the following is a full, clear, and exact description.

This invention, which pertains to the art of administering liquid tinctures, simple and compound, and other medicated liquids for the purposes of inhalation and atomization, particularly relates to charging and impregnating air with the vapor of said liquids; and it consists of means to secure such charging and impregnation, all substantially as hereinafter described, and set forth in the claim, reference being had to the drawings forming part of this specification, and in which the figures are views of the said means.

In the drawings forming part of this specification the invention is illustrated, Figure 1 being a central vertical section. Fig. 2 is a horizontal section on lines 2 2, Fig. 1.

In the drawings, A represents a vessel for containing the liquid to be inhaled or atomized, in accordance with this invention.

B is a stopper tightly closing the mouth of the bottle A, and preferably detachable at pleasure.

G and D are two passages for open communication between the interior and exterior of the bottle A; and in the use of the bottle, and in combination therewith, the passage G is for the entrance of air to the interior, and the passage D is for the discharge of the air so entered, charged with the liquid contents of said bottle, said liquid contents being shown by a series of parallel horizontal dotted lines. The passages G and D, as particularly shown, are both contained in the stopper B, and they are more or less parallel, but separate and distinct from each other, and each passage at one end is open to the interior and at the other end to the exterior of the bottle, so as to thus make communication between the interior and exterior of the bottle, provided said passages are unobstructed or left open, as will hereinafter appear. The passage G is adapted for communication at one side of the stopper B, and the passage D for similar communication at the outer end of the stopper, the passage G extending only a portion of and the passage D the whole length of the stopper B. The inner end of passage G is provided with a tube extension, E, dipping below the level of and into the liquid contents of the bottle, and the outer end of passage D preferably is to be provided, as shown, with a flexible tube extension, H, having at its outer end a hollow bulb or head, J, of glass or other suitable material, provided with an orifice or hole, *a*.

F is a two-way cock. This cock F, as particularly shown in the drawings, is a conical or tapering plug inserted in, but suitably secured against accidental detachment from, and so as to be free to turn in, a correspondingly-shaped seat of the stopper, and which seat extends horizontally across from side to side of the stopper, and with the plug removed therefrom the seat is then open at both ends. The cock F has through it two separate and distinct passages, K L, which, with the cock properly adjusted by turning it, are both situated and of directions the one, K, to then be in line with and open to and making free communication along the discharge-passage D of the stopper B, and the other, L, to then be in line with and open to and making free communication along the air-entering passage G, and for both of such communications to be established at one time and with the cock in the given and suitable position for each. Again, the situations and directions of both passages K L of the cock F are such that, with the cock properly adjusted, by turning it both passages K L will be placed out of line with their respective passages D G of the stopper, and thus said passages D G closed, or, in other words, communication through both of them shut off from the interior of the bottle. The passage K of cock to connect with passage D of the stopper extends diametrically across the cock, and the passage L of cock to connect with passage G of stopper is a passage having a lateral opening in relation to the axis of rotation of the cock. With passages G D of the stopper B open, obviously suction at the bulb J will draw air through, and thereby secure its impregnation with the vapors of the liquid contents of the bottle for final discharge at the bulb J, said impregnation of the air occurring in the portion of the chamber of the bottle A

which is above the level of its liquid contents, before referred to.

With an elastic bulb such as used with atomizers applied and connected to the air-entering passage G of the stopper, obviously air can be forced through the liquid contents of the bottle and it impregnated with the contents discharged through the passage D.

The extension H preferably is flexible. Again, this tubular extension H of passage D, with its bulb J, affords a ready means of application of the passage D to the nostrils and mouth of the person for inhaling the contents of the vessel A by suction, as has been described; but it is not essential.

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

In the art of administering liquid tinctures and other liquid medicines for the purposes of inhalation and atomization by charging air with the vapors thereof, means substantially such as used and as herein described, the same consisting of a vessel, A, partially filled or charged with the liquid to be so administered, a plug or stopper, B, to tightly close the mouth of said vessel, an air-passage, G E, leading through said stopper and into said liquid, and below the level thereof open to and in direct and immediate communication with said liquid, and outside of the vessel in communication with the air, a passage, D, also leading through said plug and at one end in communication with the portion of the vessel A not containing and which is directly above and open to said liquid, and at its opposite end open to the outside of the vessel, and a valve or cock, F, having passages K L, corresponding to and for opening and closing the stopper-passages D G, all combined and arranged so that, with the vessel partially filled with the liquid desired and said passages D G opened, air may be entered through passage G and its continuation E directly into the liquid of said vessel, and, passing through said liquid into the chamber of the vessel above its level, to be therein charged with the vapor arising from said liquid, and thence withdrawn and discharged at the outer open end of the passage D, substantially as and for the purposes described.

In testimony whereof I have this day set my hand in the presence of two subscribing witnesses.

JAMES McGEARY.

Witnesses:
ALBERT W. BROWN,
FRANCES M. BROWN.