

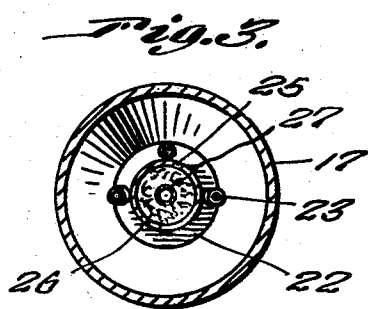
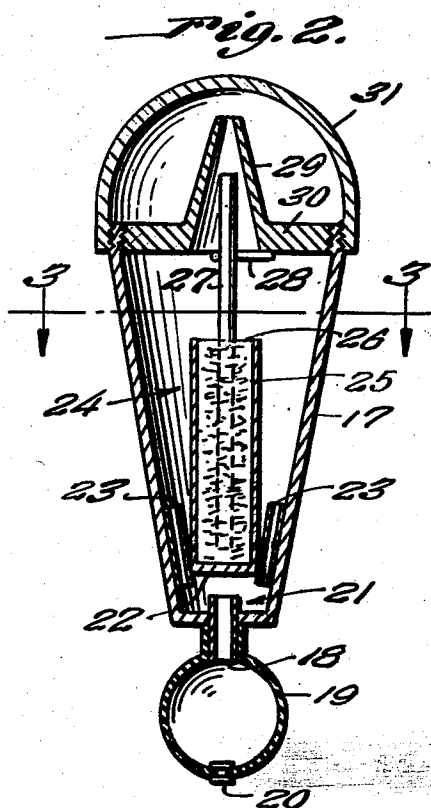
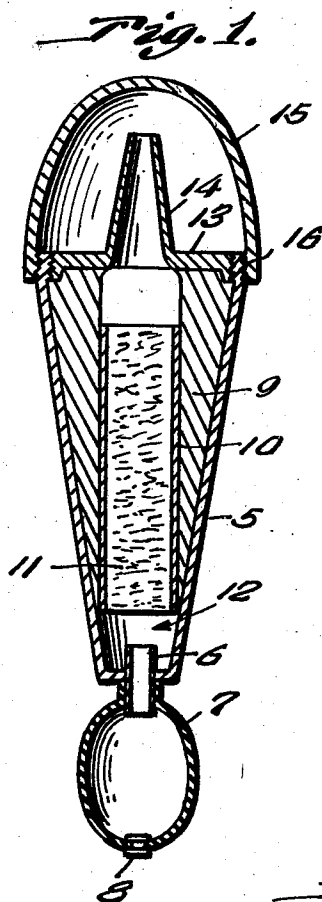
Oct. 19, 1948.

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2,451,540

INHALER

Filed Sept. 28, 1945



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UNITED STATES PATENT OFFICE

2,451,540

INHALER

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Application September 28, 1945, Serial No. 619,086

2 Claims. (Cl. 128—185)

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This invention relates to medicament applicators of the inhaler type and has reference in particular to one in which a hand pressure bulb is embodied and conveniently utilized to assist the user in attaining more effective and beneficial and all around results.

An object of the invention is to generally and otherwise improve upon inhalers in this line of endeavor, this with a view toward affording manufacturers and users an improved type of accessory which, it is believed, is more aptly fitted for the purposes intended and otherwise susceptible of attaining desired ends.

In carrying out the principles of the invention, I utilize two forms of the invention, these having certain common characteristics in that each is characterized by a case having a nostril insertion nozzle at one end, and a hand actuated pressure bulb at the opposite end, there being a container in the case which is adapted to contain raw cotton or similar absorbent, the latter to be saturated with a medicament and said medicament being discharged through the nozzle for use.

Other features, advantages and objects of the invention will become more readily apparent from the following description and the accompanying illustrative drawing.

In the drawing, wherein like numerals are employed to designate like parts throughout the views:

Figure 1 is a central longitudinal view through a pressure inhaler constructed in accordance with the principles of the invention.

Figure 2 is a similar view showing a modified type of inhaler.

Figure 3 is a horizontal section, this on the plane of the lines 3—3 of Figure 2, looking in the direction of the arrows.

Reference is first had to Figure 1 from which it will be seen that the case, which is of appropriate dimensions and material is denoted by the numeral 5. This is preferably frusto-conical and is provided at its lower end with a nipple 6 one portion projecting into the lower part of the case, and the other portion projecting outwardly and beyond the case, the latter having a squeeze-bulb 7 mounted thereon. The bulb is provided with the usual air inlet element 8. The neck of the bulb is fitted on the nipple 6 to force air into the interior of the case. The case is lined with an appropriate filler 9 which is simply bored to accommodate the cylinder 10, said cylinder being open at its opposite ends and charged with raw cotton or the like 11. There is an air chamber at 12 into which the air from the bulb is dis-

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charged for passage through the raw cotton. The upper end of the case is internally screw-threaded to accommodate a closing disc 13, said closing disc having a central tapered nozzle 14 for insertion in the nose of the user. A suitable dome-type cap 15 is provided, this covering the nozzle and being threaded on the case as at 16 for ready application and removal.

In using this form of the invention, the medicament is dropped into a container 10 by way of the nozzle 14, the cap 15 having first been removed. The medicament thus "loads" the absorbent cotton 11. Hence, by pressing the bulb 7 the incoming air under pressure forces the medicated fumes out through the nozzle 14, achieving the desired ends in an obvious and suitable manner.

Referring now to the modified form of the invention seen in Figure 2, I also provide a frusto-conical case 17 with a nipple 18 uniting the bulb 19, the bulb having an air inlet 20. The air is thus forced into the chamber 21, this chamber being defined in the present instance by a partition 22 in the case. The partition is provided with circumferentially spaced air tubes 23 permitting the air to pass from the chamber 21 into the chamber 24. In the latter chamber I provide a cylinder 25 which is charged with raw cotton or the like 26. A small tube 27 is fitted down into the cylinder and submerged in the raw cotton and terminates in spaced relation to the partition 22. The numeral 28 designates a suitable bracing element securing the upper end of the tube 27 in proper relationship to the tapered nozzle 29 on the disc 30 threaded into the case. The case is also externally screw threaded to accommodate the dome-like cap 31. It will be noted that the discharge end of the vapor and fume delivery tube 27 terminate inwardly of the discharge end of the nozzle 29.

In viewing the forms of the invention shown it is to be repeated that medicine is dropped in the nozzle 14 (see Figure 1) and falls upon the absorbent material or cotton in the cylinder 10. The nozzle 14 is inserted into the nose and the bulb is pressed. The fumes from the medicine deposits enter the nasal passages and thus afford the user of their beneficial effects. It is believed that this type of inhaler is superior to the one found on the market today and it is obvious that more effective medication can be obtained by pressure rather than by the usual "sniff-type" inhaler. Also this type of inhaler can be used on infants where oil or other nasal sprays are not indicated for use by physicians. The mechanics of the general construction of the form

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of the invention as seen in Figure 2 are similar to those utilized in the structure of Figure 1. In this form of the invention when the bulb 19 is pressed a negative pressure results at the discharge end of the nozzle 29. The air from the trapping and accumulating chamber 21 passes up through the tubes 23 into the chamber 24 and then into the nozzle 29. The air currents discharging through the nozzle create suction and pick up and feed medicated fumes issuing outwardly through the fume tube 27. A different mode of application of medicated fumes is thus acquired.

A careful consideration of the foregoing description in conjunction with the invention as illustrated in the drawings will enable the reader to obtain a clear understanding and impression of the alleged features of merit and novelty sufficient to clarify the construction of the invention as hereinafter claimed.

Minor changes in shape, size, materials and rearrangement of parts may be resorted to in actual practice so long as no departure is made from the invention as claimed.

I claim:

1. In a hand pressure type inhaler of the class described, a case transversely partitioned at one end to define separate chambers, one chamber for accumulation of air under pressure, an air furnishing bulb attached to one end of said case and communicating with said last-mentioned cham-

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ber, a plurality of communicating tubes mounted in said partition and affording communication at opposite open ends between said chambers, and a nozzle mounted on the opposite end of said case and substantially closing the end of the adjacent medicament chamber.

2. The structure specified in claim 1, in conjunction with a cylinder mounted in the medicament chamber and charged with absorbent cotton, and an elongated relatively small vapor pick-up tube, said tube being embedded at one end in said absorbent cotton and having its opposite end projecting into and terminating short and inwardly of the discharge end of said nozzle.

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