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O. O. WUNSCH
MEDICINAL ATOMIZER

2,449,734

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Fig. 1.

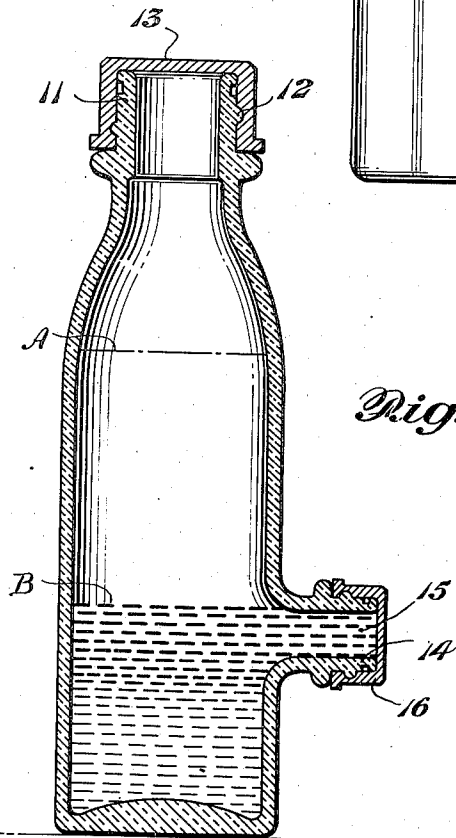
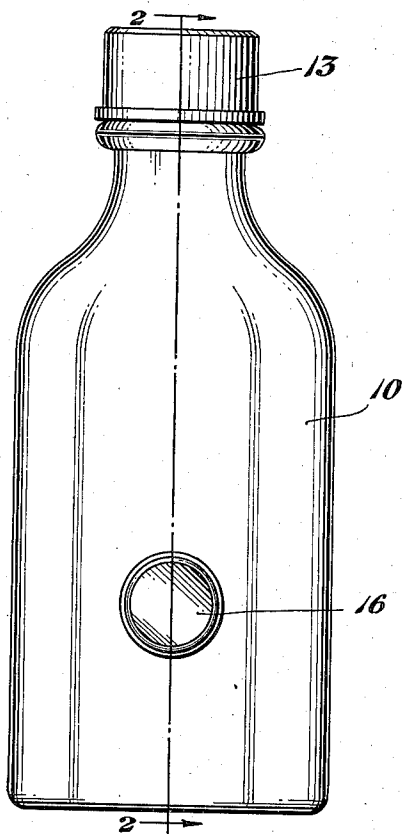
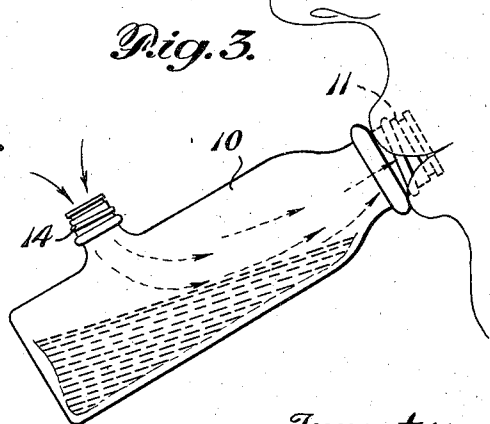


Fig. 2.

Fig. 3.



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MEDICINAL ATOMIZER

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1 Claim. (Cl. 128—173)

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The invention relates broadly to the art of medicators, and more particularly to a medicine atomizer which is preferably in the form of a glass prescription bottle adapted to contain the medicament, which bottle preferably includes a relatively large screw cap mouth portion at the top adapted, when opened, to be placed in the mouth of the person using it, and a relatively small screw cap side opening for the admission of air located a substantial distance from the mouth portion, which air opening, when the screw cap is removed, and upon inhalation by the user, allows air to enter the atomizer and pass over the surface of the medicament into the mouth of the user, carrying with it a portion of such medicament in atomized or vapor form.

The atomizer may be very economically manufactured, is of a simple construction, and requires no mechanical parts or devices to become worn or defective, and may be produced so cheaply that it may be thrown away when the medicament with which it is initially provided is exhausted, or, if desired, it may be readily cleansed, refilled and used repeatedly.

The atomizer may be used with any form of medicament for health purposes or for the treatment of diseases, and is of such construction that it may be easily and thoroughly cleansed. While the device is primarily intended for use as a simple inhalator, in which case no mechanical attachment is required, and the atomizer may be made in convenient sizes to be carried in the pocket or pocketbook of the user, it may, under some circumstances, be made of large size for use with a mechanical device such as an air conditioning unit, in which case the air may be passed through the atomizer either by the use of vacuum applied at the mouth or by the application of air pressure at the side opening. However, the atomizer is normally intended for use without any mechanical attachments whatever, and, as previously pointed out, one of its primary advantages resides in its simplicity and in the lack of any mechanical parts or devices to become worn or defective.

The invention will be more readily understood by reference to the accompanying drawing and the following detailed description, in which are set forth by way of illustration, but not by way of limitation, a specific embodiment of the inventive thought.

In the drawings:

Fig. 1 is an elevation of a bottle equipped with the atomizing connection;

Fig. 2 is a vertical section on the line 2—2 of Fig. 1; and

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Fig. 3 is a diagrammatic view on a smaller scale than Figs. 1 and 2 illustrating the operation of the device as an atomizer.

As shown, the atomizer comprises a bottle 10 preferably of glass or of any material capable of holding liquid conveniently. The bottle may be of the two ounce prescription bottle type. The bottle is provided with a mouth portion 11 which, when the device is used as an atomizer, is adapted to be inserted in the mouth of the user. As shown, the mouth portion is externally screw threaded at 12 and may be provided with a suitable screw cap 13 to retain the medicament and vapors within the bottle.

At one side of the bottle, and preferably near the bottom so as to be substantially removed from the mouth portion, there is provided a nipple 14 having a passage 15 therethrough through which air may be drawn into the bottle upon inhalation by the user. The nipple is preferably externally screw threaded and may be provided with a tight fitting screw cap 16.

The bottle 10 may be filled to any suitable level with the desired medicament, but preferably the level should be between the levels indicated by the dotted lines A and B. In filling the bottle the side screw cap 15 will, of course, be initially applied, and when the bottle has been filled to the proper level mouth cap 13 will then be applied and the bottle may be used as an ordinary shipping or storage container. The cost of the bottle is not materially greater than that of the ordinary prescription bottle. The bottle should not be filled substantially above the line A as if it is completely filled it cannot be used as an inhalator until a portion of the liquid has been drawn off, although in some cases it may be preferred to fill the bottle completely so as to provide a maximum of medicament, a portion of which medicament may be preliminarily drawn off and after use of the atomizer may be replaced in the bottle.

When the device is to be used as an inhalator the cap 13 is removed and the mouth portion 11 of the atomizer is placed in the mouth of the user and the device tilted so that the nipple 14 is upward. The cap 16 is removed and upon inhalation air will be drawn inwardly through the air passage 15 of the nipple and will pass lengthwise over the surface of the liquid, thus gathering substantial portions of the medicament in atomized or vapor form. It will be noted that owing to the location of the nipple 14 near the bottom of the bottle the air passes for a relatively long distance over the surface of the medicament, and thus may become completely impregnated with the medicament, this being one of the im-

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portant advantages of the present device as compared with other devices heretofore employed for a similar purpose. It will be apparent that the application of the medicament is not accompanied by the inconvenience which ordinarily results when pressure is applied to an atomizer as by the use of a rubber bulb or other mechanical device. Similarly, since no mechanical attachments are required there is nothing to get out of order and the atomizer may be used safely and conveniently until the original supply of medicament has been exhausted.

After each use of the device as an inhalator the caps 16 and 13 are replaced and the bottle 10 may be stored for further use until the medicament is exhausted. The bottle may then either be thrown away or may be cleansed and refilled any number of times for further usage.

The invention has been described in detail for the purpose of illustration, but it will be obvious that numerous modifications and variations may be resorted to without departing from the scope of the invention.

I claim:

A liquid medicament container and inhalator consisting of a bottle having a reduced neck at the top thereof adapted to be inserted into the mouth of a patient, said neck having an opening leading to the interior of the bottle, a removable closure closing and sealing said opening, a nipple located in the side of the bottle near the bottom thereof and having an opening leading to the interior of the bottle, and a removable closure adapted to close and seal the nipple opening; both

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of said openings being of substantial dimensions and being clear of all obstructions so that there may be a free flow of air therethrough; the interior of said bottle being entirely free of all obstructions including tubes so that the bottle will contain nothing except the liquid medicament and air; the inhalator being adapted to be partly filled with liquid medicament and tilted and held with the upper end open and inserted in the mouth of the patient and the nipple opening exposed to the atmosphere, so that the patient by mouth suction may draw air in through the nipple opening and over the considerable surface of liquid caused by tilting of the bottle, whereby vapor will be picked up from said liquid medicament before the air flows into the patient's oral and nasal cavities.

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