

(No Model.)

T. M. DUNHAM & E. S. BURNHAM.

INHALER.

No. 361,402.

Patented Apr. 19, 1887.

Fig. 1.

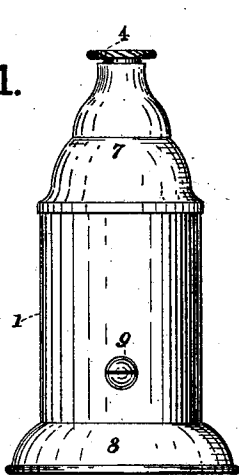


Fig. 2.

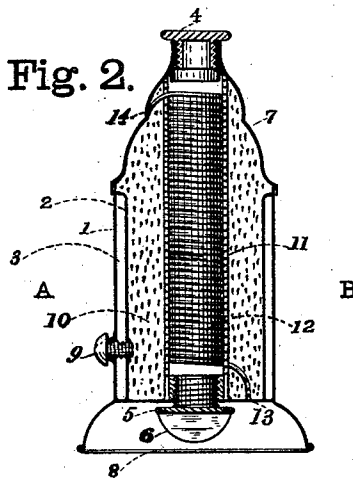


Fig. 3.

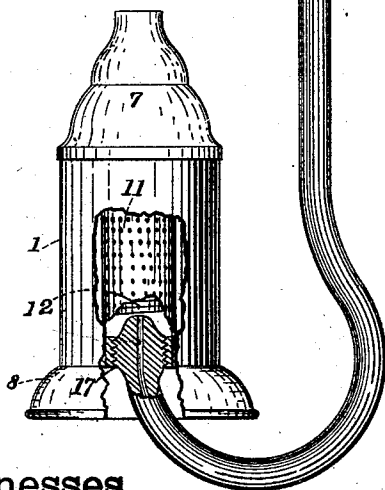


Fig. 4.

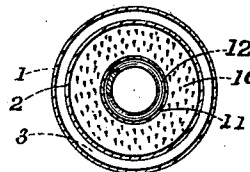
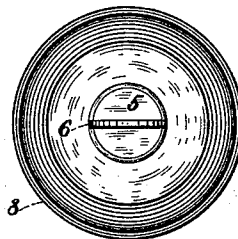


Fig. 5.



Witnesses.

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UNITED STATES PATENT OFFICE.

THOMAS M. DUNHAM, OF OCEAN GROVE, NEW JERSEY, AND EDGAR S. BURNHAM, OF BUFFALO, NEW YORK.

INHALER.

SPECIFICATION forming part of Letters Patent No. 361,402, dated April 19, 1887.

Application filed January 17, 1887. Serial No. 221,637. (No model.)

To all whom it may concern:

Be it known that we, THOMAS M. DUNHAM, residing in Ocean Grove, Monmouth county, in the State of New Jersey, and EDGAR S. BURNHAM, of Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Inhalers, of which the following is a specification.

The object of our invention is to provide a suitable means for holding medicinal compounds, or for perfumes or other liquids that require to be securely and carefully kept, so that a small portion may at any time be set free and used when required, all of which will be fully and clearly hereinafter described and claimed, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of the device complete. Fig. 2 is a vertical central section through the same, cutting through all excepting the screw for admitting the medicinal compound or other liquid into the annular space or for allowing it to pass out of the same into the interior parts of the device, also the spiral copper coil and the lower screw-stopper. Fig. 3 is a side elevation, having a portion broken away so as to expose a portion of the spiral coil and perforated tube, and to show how a flexible tube can be attached, when necessary, to either breathe the medicinal vapor into the lungs or blow it into the ear, or for other similar purposes when required. Fig. 4 is a horizontal or cross section on line A B, Fig. 2; and Fig. 5 represents a bottom view.

1 represents the outside casing of copper, and 2 an inside casing of zinc, thereby forming the annular chamber 3, into which the medicinal or other compound is placed. The top screw, cap, or stopper, 4, is milled around the top edge in the usual way, so that it may be easily turned on or off by the fingers.

5 is the lower screw-stopper. It is provided with a flat thumb-piece, 6, so that it may be easily turned and put in place or taken off.

7 represents the top and 8 the bottom of the case, which are made, preferably, of zinc.

The object of the annular space 3 is to provide an air-tight receptacle to receive the medicinal or other compound. It is provided

with a screw, 9, which screws into and through the outer casing, 1, and into and through the inner casing, 2. In this position it closes the annular space 3, so that it is perfectly air-tight, and any liquid kept therein will be securely kept for any length of time; or a small portion may at any time be allowed to pass into the interior by unscrewing the screw 9, so that its end leaves the inner case, 2, and leaves sufficient opening for the required portion to escape into the interior, where it is absorbed by a packing of cotton, hemp, or other similar material, 10.

In the interior of the device is a perforated tube, 11, and within the tube is a spiral wire, 12, of copper, which connects with the zinc bottom at the point 13 and with the top at the point 14.

15 represents a flexible tube provided with an ordinary mouth-piece, 16, and with an enlarged end, 17, adapted to screw into the opening left by the withdrawal of the bottom screw-stopper, 5, or into the opening left by the withdrawal of the top screw-stopper, 4. The object of this construction is to adapt the device to be used as an inhaler when required, or for the purpose of blowing medicinal vapor into the ear or into any diseased part, or for other suitable uses.

The object of the perforated tube is to keep the packing of cotton or other similar material in place and allow the vapor from the medicinal compound to pass into the central space within said tube and the copper spiral 12, so that it may be easily drawn out when required. When the device is used for holding perfumes or other similar liquids, neither the flexible tube 15 nor the lower stopper, 5, would be required, as in that case it would not be used as an inhaler. It is thus adapted to be used either with or without the flexible tube 15.

We claim as our invention—

1. In a receptacle for holding medicinal or other compounds, the combination of the annular chamber 3, the packing material 10, a perforated tube, 11, a means for opening or closing communication between the annular chamber and the chamber containing the pack-

ing material, and a stopper, 4, substantially as and for the purpose described.

2. A receptacle for holding medicinal or other compounds, having an annular chamber,

5 3, for holding the liquids, and means for controlling the inlet and outlet of the same, and interior screw-threaded portions adapted to receive the stoppers 4 and 5, in combination

with a removable flexible tube, 13, having a suitable mouth-piece, as and for the purposes so described.

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Witnesses:

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