

No. 672,177.

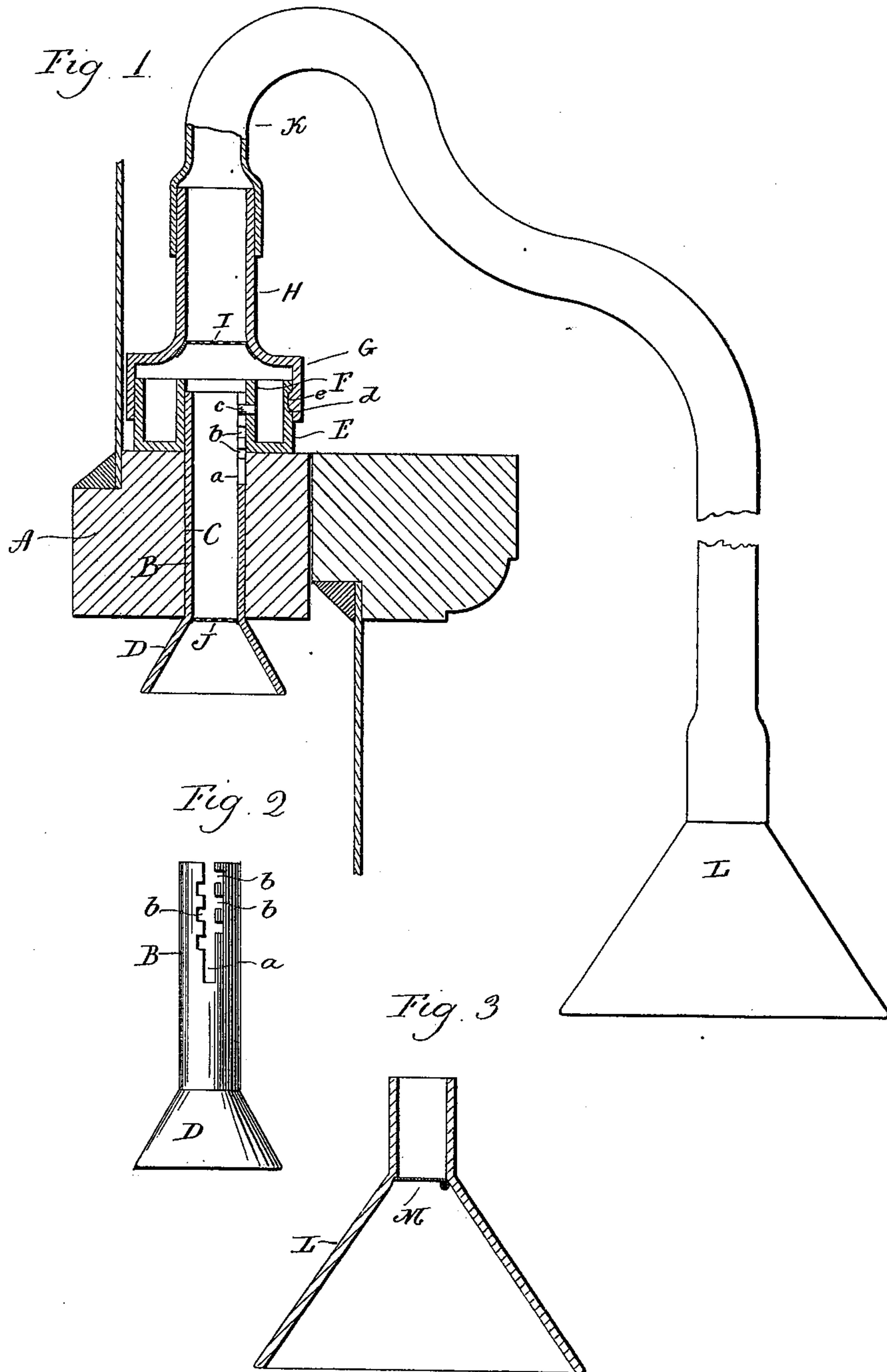
Patented Apr. 16, 1901.

W. H. METCALF.

INHALER.

(Application filed Feb. 8, 1900.)

(No Model.)



Witnesses.
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UNITED STATES PATENT OFFICE.

WILLIAM H. METCALF, OF NEW HAVEN, CONNECTICUT.

INHALER.

SPECIFICATION forming part of Letters Patent No. 672,177, dated April 16, 1901.

Application filed February 8, 1900. Serial No. 4,553. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. METCALF, of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Fresh-Air Inhalers; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a side view, partially in section, of a respirator constructed in accordance with my invention; Fig. 2, a side view of the inlet-tube detached; Fig. 3, a sectional view of one form of a mouthpiece which may be employed in connection with my device.

This invention relates to an improvement in fresh-air inhalers, and particularly to that class which are used in connection with windows, whereby air from the outside may be admitted in small quantities into the room and conducted to any desired point therein, the object of the invention being the construction of a simple device which may be easily applied and by which the air admitted may be readily medicated, if desired; and it consists in the construction, as hereinafter described, and particularly recited in the claims.

As herein shown, the device is arranged in connection with the meeting-rail A of the upper sash of a window, and consists of a tube B, adapted to be inserted upward through an opening C, formed in the rail A. The said tube is provided at its lower end with a mouth D and is of a length greater than the thickness of the rail, so as to extend above the same. In the upper end of the tube is a vertical slot *a*, opening into which are transverse notches *b*, more or less in number. Over the tube B is set a cup E, formed with a centrally-arranged collar F, corresponding in internal diameter to the external diameter of the tube B, and projecting from the inner wall of the collar is a stud *c*, adapted to enter the groove *a* and be turned into one of the notches *b*, so as to interlock the cup with the tube as well as to hold the tube in

position. In the outer wall of this cup is a bayonet-slot *d*, and over the cup is placed a cap G, having a projection *e* for engagement with the slot, whereby the cap is locked in position. The top of this cap extends upward, forming a cylindrical neck H. At the lower end of the neck H, I preferably provide a wire screen I, and at the lower end of the tube B is a similar screen J. Over the neck H is placed a pipe K, of rubber, which is of the required length and is connected at its opposite end with an end piece L, which is preferably of sufficient size to inclose the mouth and nose. In this mouthpiece is a trap M, which permits inspiration, but closes against exhalation. In place of the mouthpiece shown it is evident that other forms of mouthpieces may be used, or smaller devices may be employed to permit inhaling through the nostrils.

With a device of this character air from the outside may be admitted to a room and conducted to any desired point without cooling the air in the room, and, if desired, a medicament may be placed in the cup.

While I have shown the tube B as extending vertically through the meeting-rail of the upper sash, it is evident without illustration that it might extend transversely through the lower rail of the lower sash, through the casing, through the glass itself, or, if desired, through a door or other part of a building, it being understood that the distance between the mouth D and the bottom of the cup C will correspond substantially to the thickness of the part through which it extends, and the tube may be made longer or shorter, according to circumstances, or be provided with a greater or less number of interlocking notches, whereby it is easily adjusted in various positions.

I am aware that window-ventilators have been arranged in which a tube is passed through a frame or screen adapted to be inserted within a window-casing and in connection with tubes, whereby fresh air may be admitted to an apartment and conducted to any desired point therein; but such devices have been of a complicated nature and not adapted for direct attachment to a window-frame or

other convenient part of a building. My device is so simple in construction that it is inexpensive and when applied to a window may be used without opening the window.

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

1. In a fresh-air inhaler, the combination
10 with a tube adapted to be mounted in a window-frame and open at its outer end, of a cup attached to the inner end of said tube, a cap adapted to be secured over said cup and formed with a tubular neck and a pipe coupled with said neck, substantially as described.

15 2. A fresh-air inhaler, comprising a tube, a cup adapted to set over the upper end of said tube, and formed with an upwardly-extending central collar for engagement with the said tube, a cap for engagement with said

cup and formed with a tubular neck, and a 20 pipe adapted to set over said neck, substantially as described.

3. A fresh-air inhaler, comprising a tube, a cup adapted to set over the upper end of said tube and formed with an upwardly-extending 25 central collar for engagement with the said tube, a cap for engagement with said cup and formed with a tubular neck, a pipe adapted to set over said neck, and screens in said tube and neck, substantially as described. 30

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

WM. H. METCALF.

Witnesses:

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