

(No Model.)

2 Sheets—Sheet 1.

J. H. KELLOGG.
INHALER.

No. 605,436.

Patented June 7, 1898.

Fig. 1.

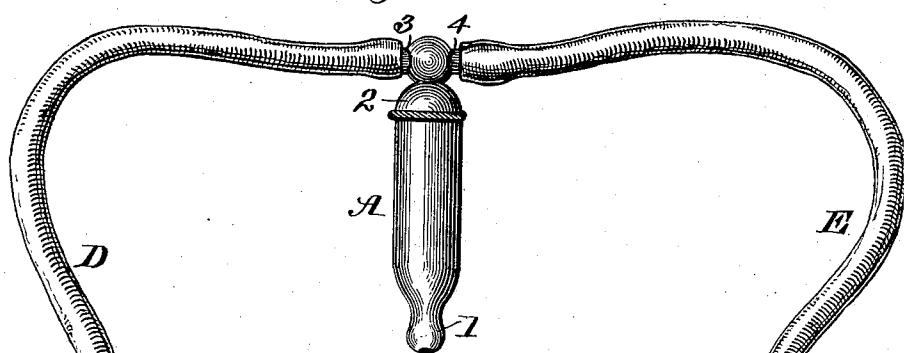


Fig. 2.

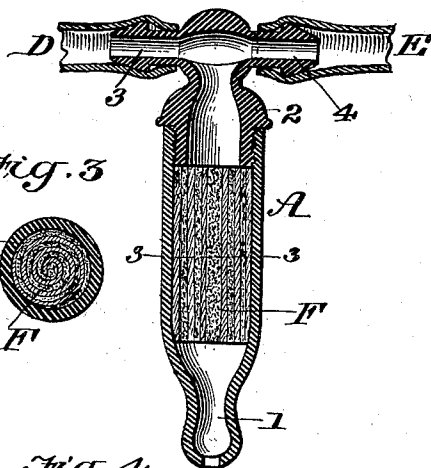


Fig. 3.

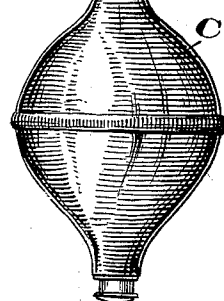
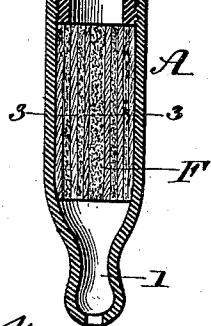
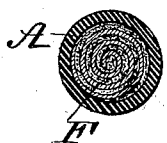
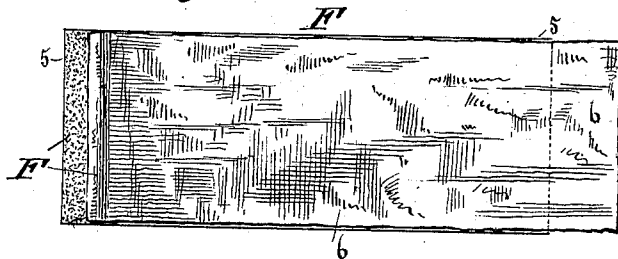


Fig. 4.



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Fig. 5.

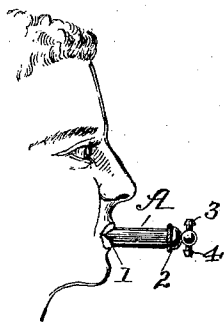


Fig. 6.

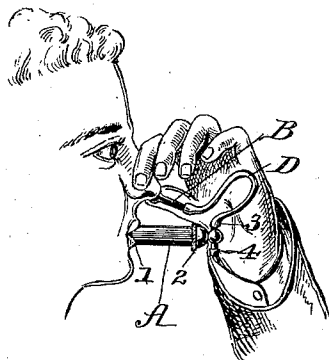
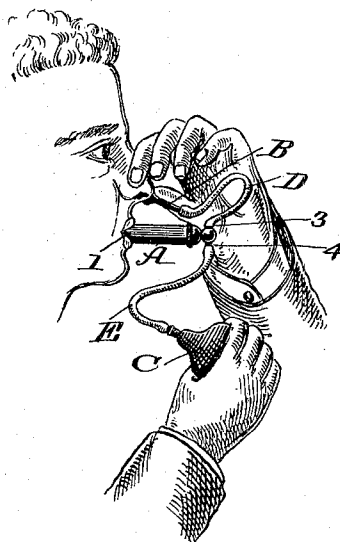


Fig. 7.



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UNITED STATES PATENT OFFICE.

JOHN H. KELLOGG, OF BATTLE CREEK, MICHIGAN.

INHALER.

SPECIFICATION forming part of Letters Patent No. 605,436, dated June 7, 1898.

Application filed July 2, 1897. Serial No. 643,210. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. KELLOGG, of Battle Creek, in the county of Calhoun and State of Michigan, have invented a new and useful Improvement in Inhalers, of which the following is a specification.

My invention is an improvement in the class of small or pocket inhalers or vaporizers for inwardly applying vaporizable medicaments to the nose, ears, and throat. It is simply constructed, consisting of but four main parts—namely, a tubular body or mouthpiece, a nose-piece, and a compressible air-bulb, both connected with said mouthpiece by short flexible tubes.

The construction and manner of using the inhaler are as hereinafter described, and illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of the instrument. Fig. 2 is a sectional view of the same. Fig. 3 is a cross-section on line 3 3 of Fig. 1. Fig. 4 is a view showing the manner of forming the absorbent and holder for the medicament. Figs. 5, 6, and 7 are views showing the manner of holding the instrument and the manipulation required for practically treating the nose, ears, and throat.

As shown in Figs. 1 and 2, the tubular body or mouthpiece A of the instrument is connected with a nose-piece B and compressible air-bulb C by means of two flexible tubes D E. The said mouthpiece and nose-piece are preferably constructed of hard rubber, while the other parts C D E are made of soft rubber.

The mouthpiece A has an opening at each end and is reduced at one end 1 to adapt it to be held between the lips and provided at the other end with a removable screw-plug 2, having lateral nipples 3 4 to provide for attachment of the tubes D E. Thus the said tubes connect directly with each other and also with the mouthpiece A.

It will be seen that under all conditions there is a free passage, Fig. 2, from the nose-piece B and the bulb C to the mouthpiece A. To charge the inhaler, screw the plug 2 out of the tubular mouthpiece A and apply a few drops of the medicament to the absorbent material F within the same. Then replace the plug.

In treating the throat the mouthpiece A is

held between the lips, as shown in Fig. 5. Then the patient takes deep inhalations through the same and breathes out through his nose. In this case the tubes D E may be detached, if preferred, so that the air drawn in will enter the nipple 3 directly; but if the tubes D E are left attached the air will be drawn through the nose-piece B and connected tube D.

To treat the nose, (see Fig. 6,) the mouth-piece A is placed between the lips and the nose-piece B to one nostril. Then the patient takes a deep breath and blows the air out through the inhaler into his nose.

In the act of exhaling the soft palate at the back of the throat contracts in such a way as to close the passage from the nose to the throat. Thus the expelled air which carries the medicament from the vaporizer to the nose passes into one nostril and out through the other after having come in contact with the diseased surfaces. By changing the nose-piece B from one nostril to the other and pointing it in different directions the entire nasal cavity may be reached. It is also possible to reach the frontal sinus and other cavities which are connected with the nasal cavity by closing both nostrils while blowing forcibly with the mouth into the vaporizer. In most cases the ears may also be inflated by this means. In advanced cases of nasal catarrh the nose as well as the throat is affected, so the vaporizer should be used for both throat and nose. When thus used, the nose-piece should be withdrawn from the nose during inhalation, and the use should be continued until moisture appears in both the eyes and the nose.

For thorough treatment of the ears (see Fig. 7) the bulb attachment C E is required. The medicament is first applied to the nose in the manner described. Then while the nostrils are both held tightly closed and the nasal cavity inflated as much as possible by strong blowing the rubber bulb C is suddenly compressed by the free hand, thus increasing the air-pressure in the nasal cavity and forcing a passage, so that the medicated air is carried up to the middle ear, which is ordinarily not reached in using inhalers of the usual types.

It will be seen that the air from the bulb

C passes directly from one nipple, 4, to the other, 3, and thus through the tube D and nose-piece B into the nasal cavity.

The fibrous absorbent and temporary holder 5 F for the volatile element used in the vaporizer proper is constructed as follows: A strip 5, of bibulous or blotting paper of the proper width and length to form a roll of the desired size, is prepared, and a strip of sheet-lint or 10 porous cotton 6, one inch in width and the same length as the blotting-paper, is prepared and laid down the center of the blotting-paper in such a manner as to overlap it at one end and to fall short at the other about three-fourths of 15 an inch, and the two are rolled up, beginning with the overlapping end of cotton. In this manner a roll is formed of the right size to fit into the vaporizer-tube A in such a manner that the blotting-paper is nowhere in con- 20 tact with itself except at the extreme ends or surface of the roll, the space between the consecutive layers of the blotting-paper being filled with absorbent and lint. When the volatile material is applied to this absorbent 25 roll, the blotting-paper takes it and holds a large quantity, passing it out to the absorbent lint as it is needed. Thus it is possible to put into the inhaler a sufficient quantity of the medicament to last several days, even 30 if the instrument be almost constantly used, and yet the feed or supply to the lint is gradual and practically uniform at all points.

What I claim is—

1. The improved pocket-inhaler comprising the tubular mouthpiece having a longitudinal 35 passage, and an absorbent and holder for the vaporizable medicament, which holder is contained in said mouthpiece, the nose-piece, and compressible air-bulb, and separate flexible tubes connecting the latter two directly 40 with each other and also with one of the open ends of the mouthpiece, as shown and described, whereby air may be forced from the bulb directly through the mouthpiece, or directly to the nose-piece, or from the patient's 45 mouth through the mouthpiece to the nose-piece, as required.

2. The improved inhaler, composed of the tubular mouthpiece, and the absorbent and holder therein, said mouthpiece having two 50 nipples which communicate directly with each other, the nose-piece and its flexible tube connected with one of said nipples, and the air-bulb and its flexible tube connected with the opposite nipple, as shown and described, 55 whereby air-pressure in the nasal cavity produced by expulsion of air directly through the mouthpiece and nose-piece may be augmented at pleasure, by compression of the air-bulb, as specified.

JOHN H. KELLOGG.

Witnesses:

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