

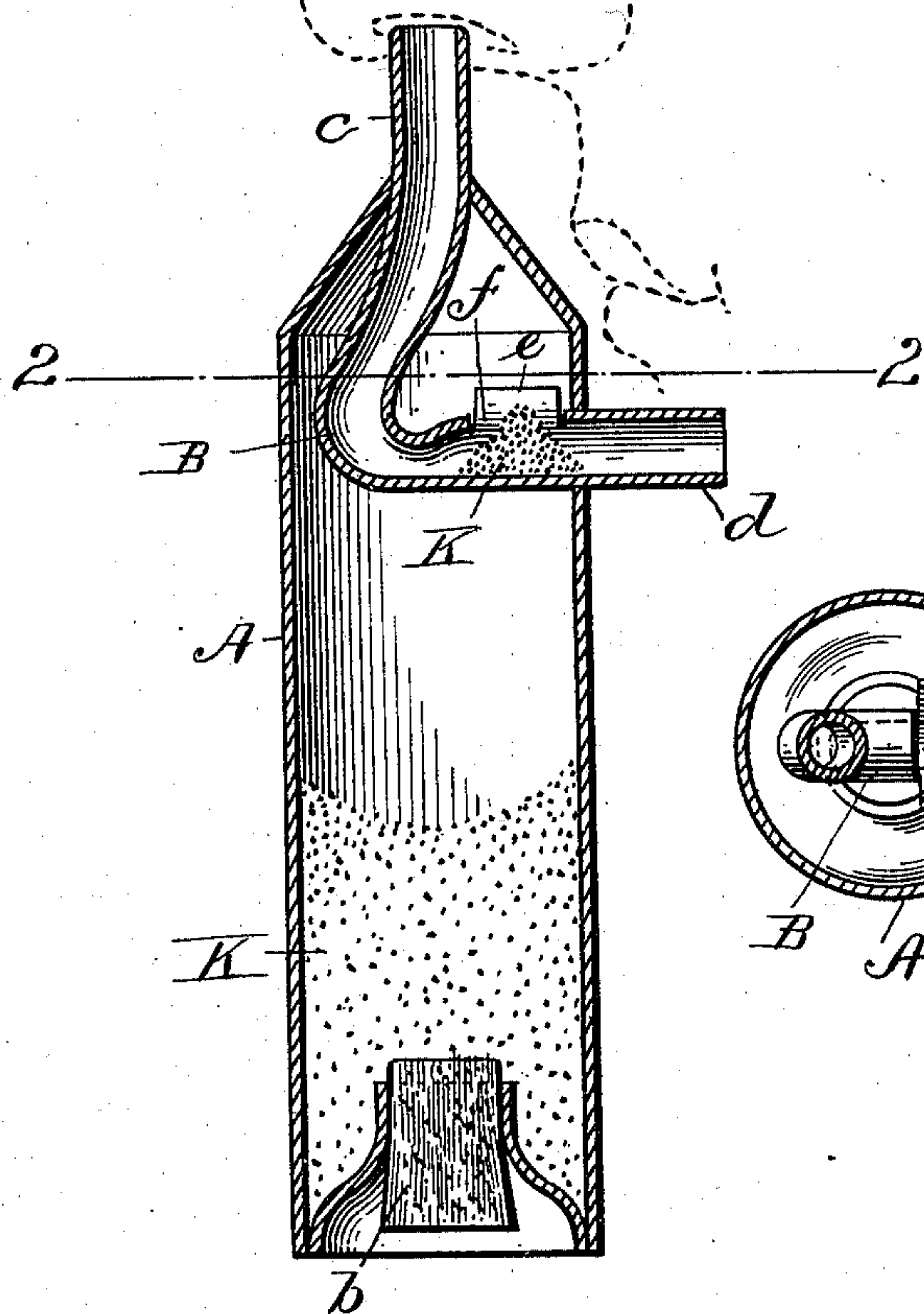
(No Model.)

J. J. CURRAN.  
INHALER.

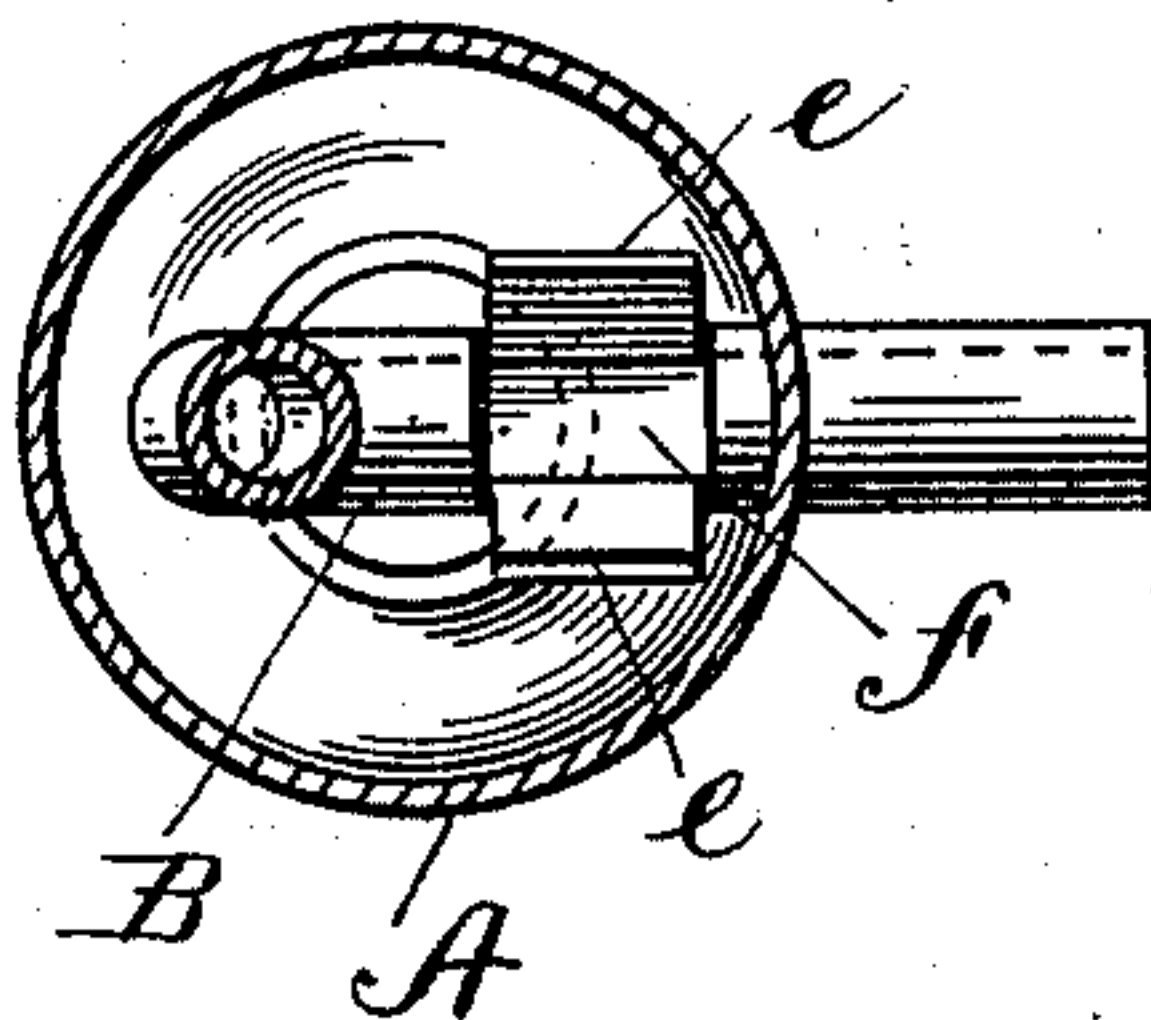
No. 598,286.

Patented Feb. 1, 1898.

*Fig. 1.*



*Fig. 2.*



*Witnesses:*  
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# UNITED STATES PATENT OFFICE.

JAMES J. CURRAN, OF HOLYOKE, MASSACHUSETTS.

## INHALER.

SPECIFICATION forming part of Letters Patent No. 598,286, dated February 1, 1898.

Application filed February 1, 1897. Serial No. 621,411. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES J. CURRAN, a citizen of the United States of America, residing at Holyoke, in the county of Hampden and State of Massachusetts, have invented new and useful Improvements in Inhalers, of which the following is a specification.

This invention relates to an instrument for use in applying medicinal substances to the throat or nose by inhalation and to the ear by blowing, the object being to provide an improved device of this class for use in the application of said substances in powdered, liquid, or comminuted form; and the invention consists in the peculiar construction and arrangement of the parts of the inhaling device, all as hereinafter fully described, and more particularly pointed out in the claim.

In the drawings forming part of this specification, Figure 1 is a vertical section of an inhaler constructed according to my invention, this figure representing an inhaling substance in the body of the instrument and a portion of said substance in position to be discharged from the inhaler by blowing or by inhaling the same. Fig. 2 is a sectional view on line 2 2, Fig. 1.

Referring to the drawings, A indicates the inhaler, which comprises a hollow body, preferably of glass and of cylindrical form, having an opening in its base or lower end to receive a cork or other suitable stopper *b*. The upper end of the inhaler is preferably of conical form, as shown. A tube B, also preferably of glass, is applied to the upper end of said body. The extremities *c* and *d* of said tube are open and pass through the walls of said body in separated relations, and in the portion thereof lying within said body is an opening *f* for receiving a quantity of the medicament contained in said body A. One end of said tube projects more or less beyond the apex of said conical part and the opposite end through the side of said body, as shown. The extremities *c* and *d* of said tube B may be closed, when desired, by using cork or like stoppers. Said opening *f*, located in the upper side of the tube B, is made, preferably, with flaring sides *e e* for the purpose below set forth.

In Fig. 1 is shown in dotted lines for illus-

tration the outline of the mouth and nose of a person, representing the operative position of the instrument when about to be used for inhaling a substance into the nose. In said Fig. 1 K indicates a powdered medicament, which is put into the instrument by removing the stopper *b*.

The device is operated as follows, presuming that the extremities *c* and *d* of the tube B be first closed temporarily by the fingers of the operator or by stoppers, as aforesaid: Upon inverting the inhaler the powdered medicament K is thrown into the end of the inhaler A, which contains the tube B, and thus said powder is caused to fill the opening *f* in said tube. Now upon reversing the instrument and bringing its conical-shaped end uppermost a portion of said medicament—that is, sufficient for one application or “dose”—is lodged in the said opening *f*, as indicated in Fig. 1. The flaring sides *e e* of said opening serve to direct said medicament therein when the body is quickly reversed. By now applying the instrument to the nose, as indicated in Fig. 1, and inhaling through said tube B the portion of powder K in said tube is drawn into the nasal passages for medicinal application thereto, the entrance of air being at the tube end *d* and slightly downward into the said opening *f*.

If it be desired to introduce the medicament into the ear, a flexible tube may be connected to the extremity *d* and one end placed at the ear, and then by blowing into the tube extremity *c* the said medicament will be ejected from the tube B and through said flexible tube to the ear.

By placing the end of the tube *c* in the nostril (the dimensions of the instrument being suitable) and the end *d* of the tube to the lips the medicinal charge contained in the tube B within the inhaler A may be blown into the nose.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

An instrument for applying medicinal substances by inhalation or exhalation, consisting of a receptacle for the reception of a quantity of a medicinal substance, a tube B, passing through said receptacle and whose



extremities lie at right angles to each other and project through the walls thereof, an opening *e*, in said tube within said receptacle and constituting a receptacle for a sufficient  
5 quantity of said substance for one application thereof, which may be drawn or forced through said tube by inhalation or exhalation, and an opening in the body of said receptacle for the introduction of said medicinal substance, substantially as described.

JAMES J. CURRAN.

Witnesses:

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