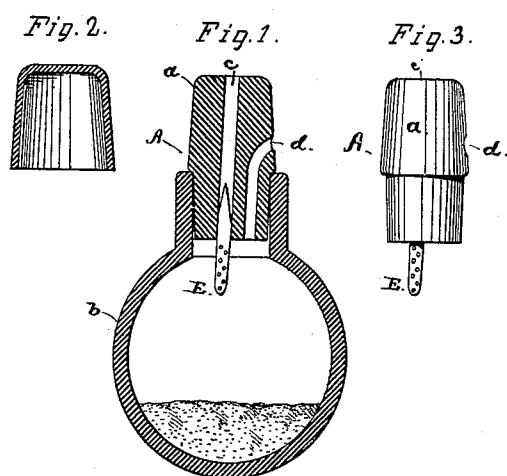


(No Model.)

J. R. ADAMS.
INHALER FOR POWDERS.

No. 263,451.

Patented Aug. 29, 1882.



Witnesses:
William W. Osborn
J. Bellick

Inventor:
John R. Adams
By his Atty., Wm. W. Osborn

UNITED STATES PATENT OFFICE.

JOHN R. ADAMS, OF OAKLAND, CALIFORNIA.

INHALER FOR POWDERS.

SPECIFICATION forming part of Letters Patent No. 263,451, dated August 29, 1882.

Application filed March 31, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOHN R. ADAMS, of Oakland, in the county of Alameda and State of California, have made and invented an Improved Inhaler for Medicated Powders; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings.

10 The object of my invention is to provide a simple device for applying dry medicated powders or snuff to the surfaces of the throat and nasal passage. The device is adapted for use in the mouth of a bottle, and will be understood, as hereinafter set forth and claimed.

15 In the accompanying drawings, referred to for a clearer understanding of my invention, and of the manner of constructing, applying, and using it, I have shown in Figure 1 a small pocket powder-receptacle with my device or instrument combined therewith, and in Fig. 2 a cap or means for covering the apertures in the end above the neck to render the instrument portable. These two views are shown in section. Fig. 3 is a view of the device separate from the powder-receptacle.

25 A represents a plug or stopper of suitable size at the lower end to fit into and close the opening in a bottle or receptacle, *b*, and of size and form at the top or head *a* to be received into the nostril. Through the body of this stopper a passage, *c*, leads longitudinally from end to head, while a second and independent aperture, *d*, extends upward from the end, and then passes out through the side above the neck of the receptacle and communicates with the atmosphere. This part A can be cast, molded, or formed in one piece in any convenient and practical manner from metal, rubber, and compositions having the required hardness, and free from poisonous and unclean properties; or it may be coated or plated to give the desired conditions. The receptacle *b* may be a vessel or bottle of any convenient shape and size to contain a larger or smaller amount of powder. The two apertures *c* & *d* supply air to and lead it out from the receptacle, and the one *d* is located in the side of the head *a*, below the end, so as to give free and unobstructed entrance to the air when the end of the head *a* is inserted into the nostril.

The other passage, *c*, that runs directly through the stopper A, is closed by or terminates in a perforated tube or extension, E, which may be either a short quill or fine tube perforated through the sides and fixed in the end of the passage *c*; or it may be formed integral with the body of the stopper A. The office of this part of the device is to produce uniform distribution or dissemination of the powder particles in and through the current of air that enters from the outside through the passage *d*, when the air in the receptacle is exhausted through the passage *c*. A proper mingling or mixture of air and powder is thereby produced, and the quality or strength of the mixture is rendered variable, as desired, by changing the size or number of the perforations or inlets in the tube E.

In the operation of my device the head *a* is inserted into the nostril at one side, and plugs or closes it against the entrance of outside air during the inhalation, while the other nostril is kept closed by pressure of the finger. A vacuum being then produced in the receptacle *b* by drawing up the air through the nostril, the outside air, entering through the passage *d*, is directed downward against the bottom of the receptacle, and the powder thereon is thrown up and mingled with the air in an intimate manner.

As thus constructed my invention constitutes a simple, clean, and very effective means of applying remedies in a dry or pulverulent form to the interior passages of the head and throat.

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

An inhaler consisting of an ordinary bottle-stopper formed to extend a short distance above the top of the bottle, provided with the opening *c*, extending from end to end centrally, and the opening *d*, opening on the side of the stopper above the mouth of the bottle, and provided with the hollow perforated extension E, forming an interior mouth-piece for the opening *c*, substantially as set forth.

JOHN R. ADAMS. [L. S.]

Witnesses:

EDWARD E. OSBORN,
D. SELLECK.