

Nov. 1, 1938.

W. H. ROSE

2,135,052

NASAL DOUCHE

Filed Sept. 22, 1936

2 Sheets-Sheet 1

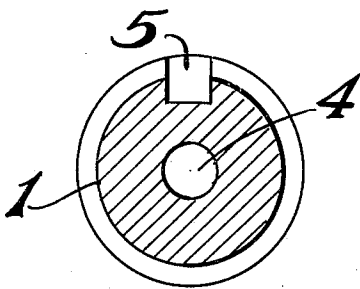


Fig. -3

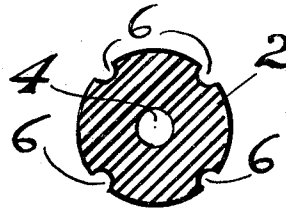


Fig. -2

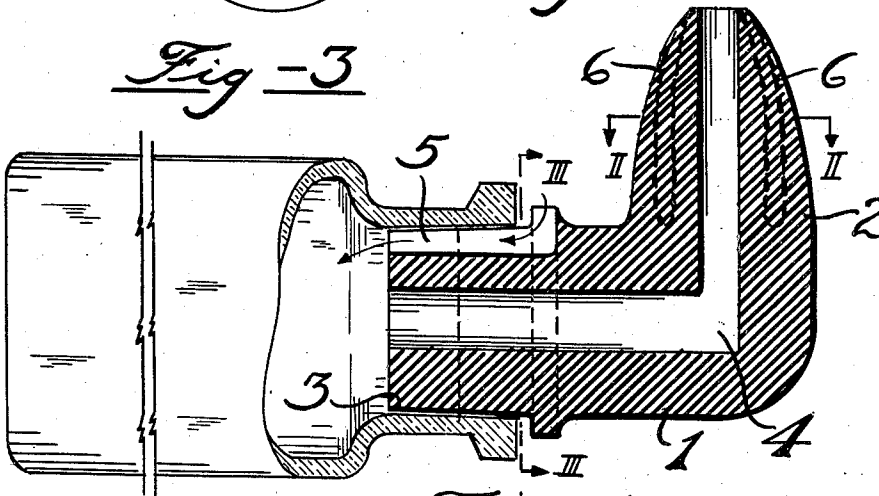


Fig. -1

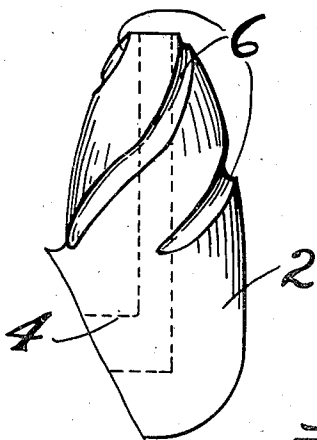


Fig. -4

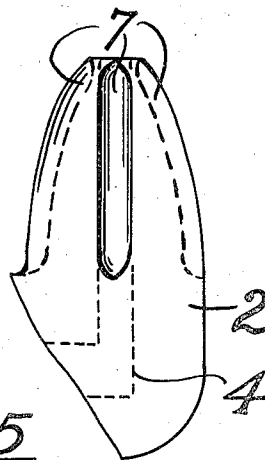


Fig. -5

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2 Sheets-Sheet 2

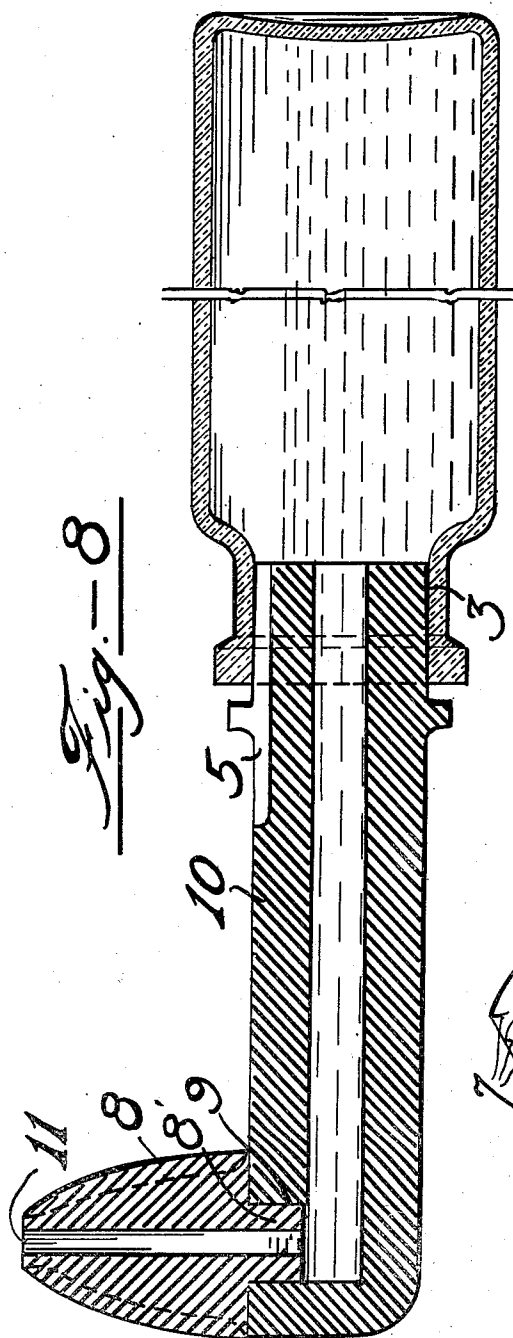


Fig. 8

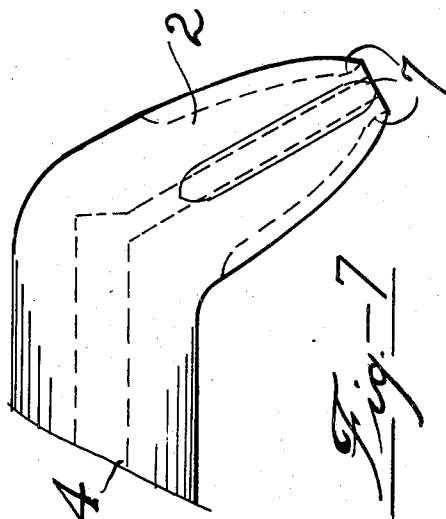


Fig. 7

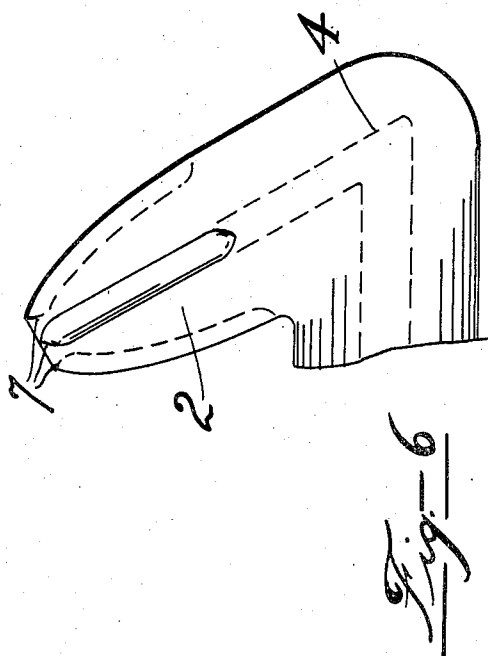


Fig. 6

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UNITED STATES PATENT OFFICE

2,135,052

NASAL DOUCHE

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Application September 22, 1936, Serial No. 101,899

4 Claims. (Cl. 128—250)

This invention relates to improvements in aspirating devices, especially those adapted for use as nasal douches and the like. A particular object of the invention is to provide a nasal douche in which only a small suction is required to raise the medicinal substance into the nostril, from a bottle containing the substance.

A further object is to arrange for the delivery of the medicinal substance to the nostril in admixture with air.

A further object is to simplify the construction of the nasal douche by forming a nose piece integrally with and substantially at a right angle to a body portion.

A further object is to provide a simplified construction for changing the nose piece to suit the requirements of the user.

Further objects and advantages of the invention will be apparent from the following description read in connection with the accompanying drawings, in which

Fig. 1 is a vertical section through a preferred form of nasal douche;

Fig. 2 is a transverse section on line II—2 of Fig. 1;

Fig. 3 is a transverse section on line III—3 of Fig. 1;

Fig. 4 is a side elevation showing a spiral air vent in the nose piece;

Fig. 5 is a similar view showing a straight air vent;

Figs. 6 and 7 are views similar to Fig. 1 but showing the nose piece arranged at a somewhat acute and a somewhat obtuse angle with respect to the body member; and

Fig. 8 is a vertical section through a form of the invention in which a removable nose piece is provided.

Referring first to Figs. 1-5 inclusive, reference numeral 1 denotes the body portion of the nasal douche which carries the nose piece 2, preferably formed integrally with the body. The device may be made of any suitable material, such as glass, hard rubber, synthetic plastic materials or the like.

The body 1 has its end opposite the nose piece tapered as at 3 so as to fit into the neck of a medicine bottle. A passageway 4 extends longitudinally through the body and thence vertically, or almost vertically, upward through the nose piece. An air inlet slot 5 is provided in the tapered portion so as to permit air to enter the bottle when it is tipped to cause the liquid to flow through the passageway 4. In the outer wall of the nose piece are formed a plurality of

air inlet grooves 6. Three of these are shown in Fig. 2, but any desired number may be used. The air vents may be spiral as indicated in Fig. 4, or one or more straight air vents 7 may be used as illustrated in Fig. 5.

In prior devices intended for use as nasal douches and the like, so far as I am aware, an aspirating device including means such as the air inlets referred to, has not been used. I have found that the suction required to elevate the liquid from the nose piece into the nostril is substantially less when air is drawn up with the liquid. Spiral air inlets are preferred, since the swirling motion of the air seems to aid the lifting effect.

In Figs. 6 and 7, alternative forms of the nose piece are illustrated but in general it will be found that the right angle arrangement shown in Fig. 1 is the most desirable.

In Fig. 8 the device is similar to that previously described except that the conical nose piece 8 is removable. A perforation 9 is made in the wall of the body member 10. The nose piece comprises an extension 8 below the conical body and this extension is seated with a friction fit in the perforation 9. Other nose pieces may be inserted having a greater or less diameter for the discharge opening 11. This is desirable if the device is to be used under different conditions, as sometimes for adults and sometimes for children. Also, it has utility in that it is not necessary to sterilize the device for subsequent use as a sterile nose piece can be substituted for the one previously used.

The device is operated by removing the stopper from the medicine bottle, inserting the tapered end of the douche in the bottle, and turning the bottle on its side so that the liquid flows through the longitudinal passageway. The user will then insert the nose piece snugly in the nostril and inhale. This readily draws the medicinal substance together with air into the nostril and upward into the nasal cavities.

Various changes and alternative arrangements may be made within the scope of the appended claims in which it is my intention to claim all novelty inherent in the invention as broadly as the prior art permits.

I claim:

1. A stopper-like aspirator device for insertion in a discharge opening of a container for liquid, consisting of a body portion having an inner end and an outer end, an annular shoulder spaced from said inner end and a longitudinal groove in said end extending through said shoulder, a

nozzle portion joined to the outer end of said body portion in angular relation thereto, the tip of said nozzle being on the same side of the aspirator as the groove and extending laterally thereof, said nozzle portion having a plurality of circumferentially spaced shallow grooves upon its surface with their ends terminating at the top of said nozzle, and a passageway extending through said body and nozzle portions, substantially concentric therewith, whereby the aspirator and liquid container may be tilted and liquid brought almost to the tip of the nozzle without flooding the body air-vent-groove.

2. An aspirator device according to claim 1 in

which the shallow circumferentially spaced grooves on said nozzle portion are disposed longitudinally thereof.

3. An aspirator device according to claim 1 in which the shallow circumferentially spaced grooves on said nozzle portions are of spiral form and extend toward and terminate at the tip of said nozzle.

4. An aspirator device according to claim 1 in which the body portion is provided with a lateral opening communicating with that portion of the passageway therein and said nozzle portion is provided for removable insertion in said opening.

WILLIAM H. ROSE.