Aug. 26, 1947. G. W. OAKES 2,426,281

HEAD AND NASAL CLARIFIER

Filed Aug. 31, 1945

Fig. 4

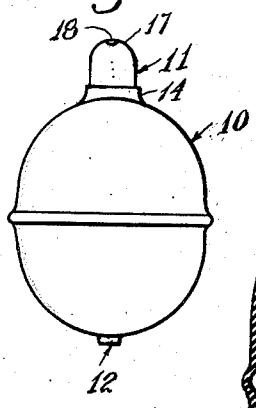


Fig. 1

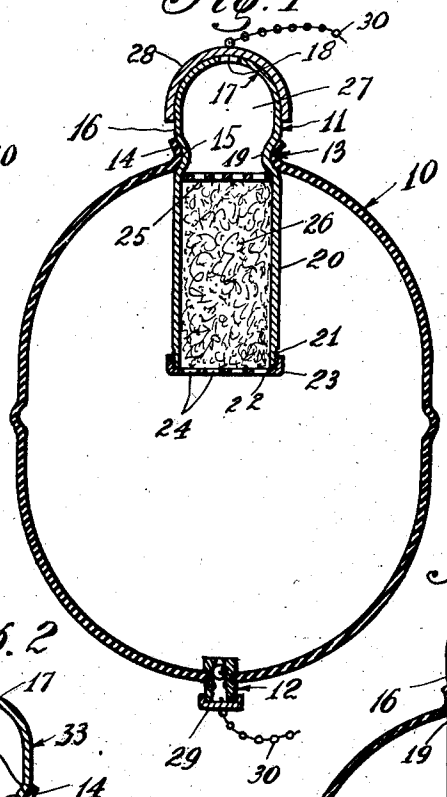


Fig. 5

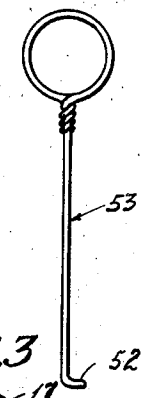


Fig. 2

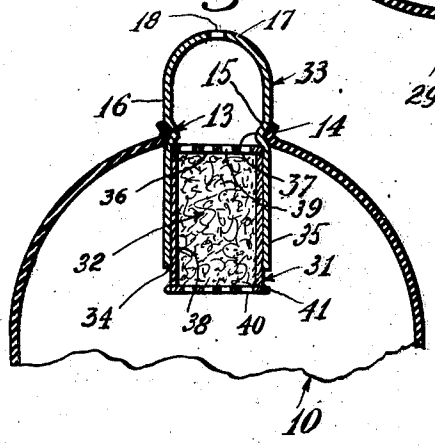
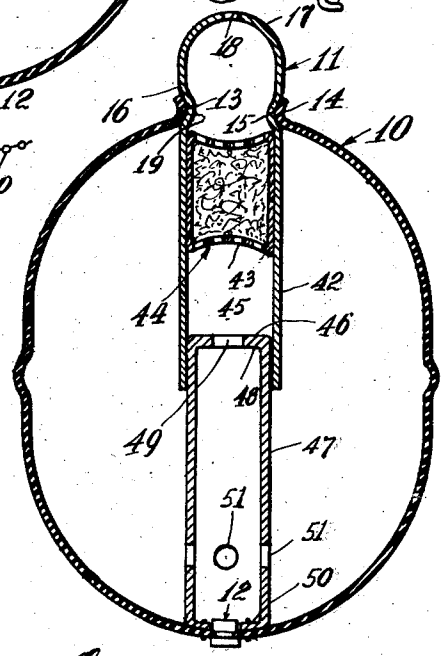


Fig. 3



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HEAD AND NASAL CLARIFIER

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1 Claim. (Cl. 128—198)

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This invention relates to head and nasal clearers and more particularly to that class of devices in which air is forced through a vessel containing sponge or cotton saturated with menthol or other suitable volatile medicaments.

One of the objects of this invention is to provide an instrument for use in forcing volatile medicaments through the respiratory passages by means of forced air.

Another object of the present invention is to provide a device which is compact and may be conveniently carried in the pocket or in a purse when not in use.

Still another object of the invention is to provide a device which may be applied and operated with one hand.

A further object of the invention is to provide a device which is ready for use at all times.

Another object of the invention is to provide a device by means of which medicated vapors may be forced to and thus passed through the respiratory passages thereby effecting almost immediate opening of clogged-up nostril passages.

Yet another important feature is the novel construction of the device in which a container filled with cotton or other suitable material and saturated with any desirable volatile medicine is placed within an air-bulb thereby providing a compact appliance by means of which medicated vapors may be forced by air pressure through the respiratory passages, and not by inhalation by means of devices such as sold at present, thereby preventing undesirable vapors to enter the lungs.

Other objects of the invention are to provide a device which is simple in its construction and arrangements, efficient in its use, compact, and one which is inexpensive to manufacture.

To the accomplishment of these and such other objects as may hereafter appear the invention consists of the novel construction, combination and arrangement of parts herein specifically described and illustrated in the accompanying drawing, wherein are shown embodiments of the present invention, but it is to be understood that changes, variations and modifications may be resorted to which come within the scope of the claim hereunto appended.

In the drawing wherein like numerals of reference designate corresponding parts throughout the several views,

Figure 1 is a vertical sectional view of the device.

Figure 2 is a vertical, sectional view of a modification of the device shown in Figure 1 in which a renewable cartridge is used, the lower portion of the bulb is shown broken away.

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Figure 3 is a vertical, sectional view of another modification, showing a plunger-type device.

Figure 4 represents an outline view of Figures 1, 2 and 3.

Figure 5 shows a tool by means of which the cartridge may be removed when replacing same with a fully saturated one.

In general, the invention is composed of a ball-like air-bulb 10 preferably made of soft rubber and a combined nozzle and medicament container 11 of plastic or other suitable material. The air-bulb 10 is of the conventional type and is provided with the usual air-valve 12 and directly oppositely thereof with an enlarged opening 13 having a rounded, outflaring flange 14 which snugly embraces circumferentially the groove 15 of the nozzle 11 to form an air-tight joint.

The combined nozzle and medicament container 11 shown in Figure 1 comprises a tubular member 16 terminating at the front into a rounded nozzle 17 provided with a central aperture 18, the said nozzle also has an annular groove 19 around the tubular member 16 which is adapted to receive the outflaring flange 14 of the air-bulb 10 for an air-tight joint.

The rear end 20 of said tubular member which penetrates the air-bulb 10 is open and may be provided with exterior threads 21 adapted to engage with the interior threads 22 of a screw-lid 23 having perforations 24.

A foraminated washer 25 is placed in abutment with the interior of the annular groove 19 to prevent the medicated cotton 26 or fabric or other suitable absorbing material to enter the nozzle chamber 27.

In order to prevent evaporation of the vapors when the device is not used a removable cap 28 may be placed over the nozzle 17 and held thereon in frictional contact.

A similar cap 29 may be applied to the air-valve 12. To prevent loosing the caps 28 and 29 a ball chain 30 of well known make may be provided.

Referring now to Figure 2 of the drawing illustrating a slight modification of the device heretofore described which modification consists in providing a removable cartridge 31 charged with medicated material 32. In general, the design of the air-bulb 10 is identical with the one described for Figure 1. The nozzle 33 differs from

the nozzle 11 by eliminating the screw-lid 23. The cartridge 31 is frictionally inserted through the open end 34 of the tubular extension 35 of the nozzle 33 until the upper foraminated end 36 strikes the annular groove 37.

The cartridge 31 comprises a tubular body 38 having a foraminated top 39 and a foraminated bottom 40. Both, top 39 and bottom 40 may be welded or otherwise secured to the ends of the body 38 after the cartridge has been filled with medicated material 32.

In order to facilitate easy removal of the cartridge 31 held in frictional engagement with the tubular body 38, a bead 41 may be provided for a finger hold.

Referring now to Figure 3 of the drawing there is shown another modification of the device in which a piston, secured to the interior bottom of the air-bulb is being used. This piston penetrates the interior of the tubular body 42 by the movement when squeezing and releasing the air-bulb.

The general construction of Figure 3 is similar to Figure 2 with the exception that the tubular body 42 extends beyond the lower foraminated bottom 43 of the cartridge 44 in order to provide a chamber 45 between the cartridge 44 and the top of the piston 46. The latter comprises a hollow tubular member 47, having a top 48 which is provided with a central aperture 49.

The lower end 50 of said tubular member 47 is secured in any suitable manner to the interior bottom of the air-bulb 10 in central alignment with the air-valve 12.

Vent ports 51 are provided around the piston body to permit the air to circulate when operating the air-bulb 10.

In order to remove the cartridge 44 the flared flange 14 of the air-bulb 10 is lifted out of the

groove 15 of the nozzle tube with the finger tips and then removed from its hold of the air-bulb. The cartridge 44 may be removed from the nozzle tube by inserting the bent lower end 52 of the tool 53 shown in Figure 5 in one of the apertures of the lower bottom of the cartridge.

It is important to mention that the device herewith described is not an inhaler such as obtainable in the open market but this device is an appliance in which air is forced through medicated material by means of an air-bulb, thus the air produced by alternate squeezing and releasing of the air-bulb is forced through the medicated material and forcibly ejected through the nozzle as a medicated vapor to the respiratory passages when the nozzle is introduced in one of the nostrils of a person.

I claim:

In a head and nasal clarifier comprising a nozzle adapted to be placed in one of the nostrils and provided with a tubular extension; an elastic air-bulb and means for retaining same in air tight connection around said nozzle; said tubular extension containing a cartridge packed with medicated material; a plunger secured to the lower, inner portion of said elastic air-bulb and operable in the lower end of said tubular extension; said piston and said tubular extension surrounded by said elastic air-bulb.

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REFERENCES CITED

The following references are of record in the file of this patent:

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