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M. C. GALVIN

1,740,083

INHALER

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Fig. 1

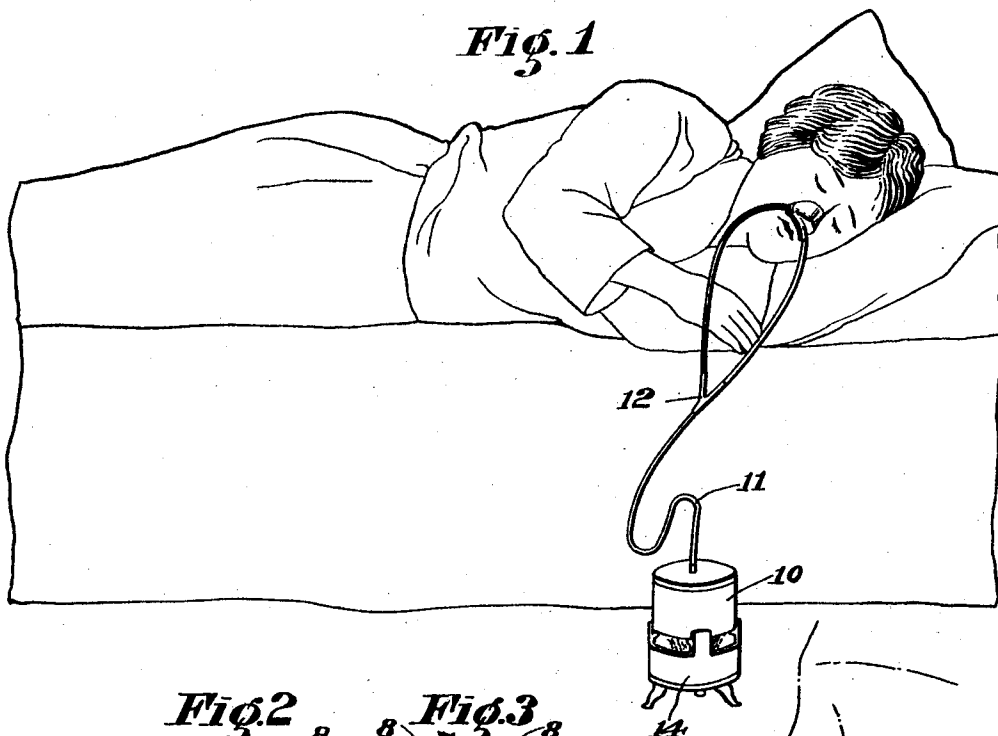


Fig. 2

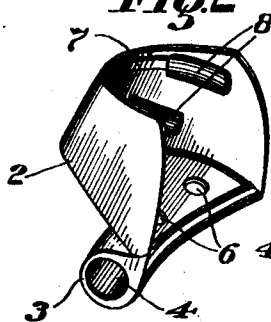


Fig. 3

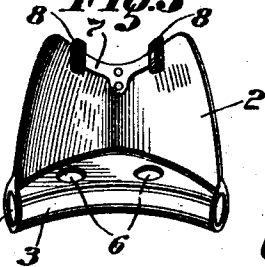


Fig. 4

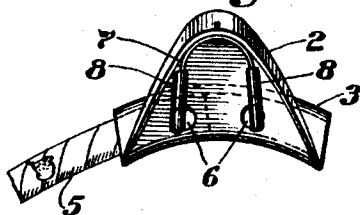
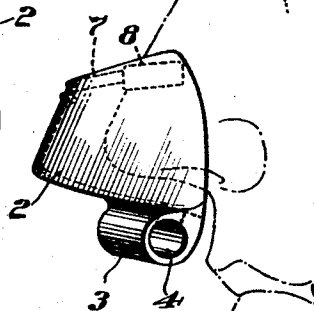


Fig. 5



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INHALER

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This invention relates to inhalers.

There are many affections of the respiratory tract in which it is beneficial to inhale vapors or emanations given off by certain medicaments. The usual difficulty encountered in using this method of treatment is that the apparatus required to practice it is inconvenient to use, and consequently, the patient as a rule will not continue its use for a sufficient length of time to accomplish the desired results. Various forms of inhalers have been proposed heretofore but those of which I have been able to learn must either be held in the hand, are uncomfortable to wear, or are open to some other objection which makes them unsatisfactory.

The present invention deals with this problem and it aims to devise an inhaler which can be worn comfortably, thus leaving both hands free, which will be economical to manufacture, and in which a wide variety of medicaments can be used.

The nature of the invention will be readily understood from the following description when read in connection with the accompanying drawings, and the novel features will be particularly pointed out in the appended claims.

In the drawings,

Figure 1 is a perspective view of an inhaler embodying features of this invention; and illustrates one method of using the device;

Fig. 2 is a perspective view of the inhaler shown in Fig. 1;

Fig. 3 is a rear elevation of said inhaler; Fig. 4 is a plan view of the inhaler; and

Fig. 5 is a side elevation showing approximately the manner in which the inhaler is worn.

Referring first to Figs. 2 to 5, inclusive, the inhaler there shown comprises a shield or guard like member 2 which is hollow or is recessed to receive the end portion of the nose. This shield preferably is made of some rigid but light material, such as vulcanite, bakelite, or a light weight metal or alloy. Projecting from the lower side of the shield along its inner edge is an extension 3 having a hole or bore 4 formed therethrough from

one end to the other. This bore is adapted to receive and hold a body of cotton or other fibrous material carrying the medicament to be administered. Fig. 4 shows a short roll or cartridge 5 of cotton or other fibrous material which may be medicated as desired, this cartridge being partly inserted in the bore 4. The emanations of vapors given off from the medicament find their way into the nose receiving cavity in the shield through holes 6-6 which connect the bore 4 with said cavity and are located substantially in alinement with the ends of the nostrils.

The matter of holding the shield in its operative position by means which will be comfortable presents peculiar problems. I have found, however, that this object can be satisfactorily accomplished by providing the device with a gripper which will engage the hard intermediate portion of the nose. As shown, this gripper consists of an approximately U-shaped metal spring 7 the central part of which is riveted to the shield, while the two arms of the spring are adapted to extend backwardly and upwardly at opposite sides of the nose. The end portions of these arms are covered with some yielding material 8, such as rubber, and the spring preferably is so located that it will grip the bony extension of the nose which projects downwardly and forwardly beyond the "bridge" of the nose. The rubber members 8 have a somewhat tacky surface which, combined with the pressure exerted by the spring, enables the device to grip the hard portion of the nose gently but firmly and thus to hold the shield in its operative position with the desired degree of security. At the same time the device can be easily placed on or removed from the nose.

For most purposes a medicament applied to or enclosed in a wad of cotton or other fibrous material is used, this wad or cartridge being inserted in the bore 4 by means of tweezers, or in any other convenient way. The device is then placed on the nose approximately as shown in Fig. 5, the nose usually, however, being entered somewhat deeper in the shield 2 than as shown in said figure, and the device is worn in this manner for the

desired length of time. Whenever necessary the cotton can be removed and a new charge inserted.

In treating cases of bronchitis, asthma, and the like, it is often desirable to inhale a vapor given off from a heated body of liquid, and Fig. 1 shows an arrangement which can be conveniently used for this purpose. As there shown, the liquid to be heated is placed in the container 10 which is provided with a removable cover to which a tube 11 is attached. This tube is protected at an intermediate point 12 and the ends of the two branches are inserted in the opposite ends of the bore 4 of the shield. The contents of the container 10 may be heated in any convenient manner, as for example, by a small portable stove or heater 14 of any type. In this instance the cotton or other fibrous material ordinarily placed in the cavity 4 is removed so that a free passage is provided for conducting the vapors from the container 10 into the shield where they will be discharged through the holes 6—6 which, as above stated, are directly below and in line with the ends of the nostrils.

It will now be appreciated that this invention provides a simple form of inhaler which can be manufactured economically, is comfortable and convenient to use, and with which a great variety of medicaments can be administered.

While I have herein shown and described the embodiment of the invention which I prefer at present, it will be understood that the invention is not limited to the exact details of the embodiment shown.

Having thus described my invention, what I desire to claim as new is:

1. An inhaler comprising a shield recessed to encase the end portion of the nose, said shield having a tubular portion in communication with the interior of the shield to hold a body of medicated material in position to be inhaled through the nostrils, and resilient means for gripping the hard intermediate portion of the nose and holding said shield in its operative position.

2. An inhaler comprising a shield recessed to encase the end portion of the nose, said shield having a tubular portion below the recess therein, and apertured to provide communication between the bore thereof and the recess, and means associated with said shield for resiliently gripping the bony extension which projects forward beyond the bridge of the nose and holding said shield in its operative position.

3. An inhaler comprising a shield shaped to encase the end portion of the nose, said shield having a portion recessed to receive a body of fibrous material, such recess being in communication with the nose receiving cavity in said shield, and means carried by said shield for resiliently gripping the bony extension which projects forward beyond the

bridge portion of the nose and serving by such gripping engagement to hold the shield in its operative position.

4. An inhaler comprising a shield shaped to encase the end portion of the nose, said shield having a part recessed to receive a body of fibrous material, such recess being in communication with the nose receiving cavity in said shield, and resilient grippers mounted in the shield and carried thereby for yieldingly gripping the bony extension which projects forward beyond the bridge portion of the nose, said grippers serving to hold the shield in its operative position.

5. An inhaler comprising a shield recessed to encase the end portion of the nose, said shield having a tubular portion below the recess therein to receive a fibrous body carrying medicament and being apertured to provide communication between the bore thereof and the nose receiving recess approximately in line with the ends of the nostrils, and means for resiliently gripping the hard intermediate portion of the nose and holding said shield in its operative position.

6. An inhaler comprising a shield of rigid material shaped to fit over the end portion of the nose, said shield having a cavity in communication with the interior of the shield to hold a body of medicated material in position for the emanations therefrom to be inhaled, and a spring gripper fastened to said shield and having end portions covered with yielding material, said gripper being adapted to grasp the hard intermediate portion of the nose and to hold said shield in its operative position.

7. An inhaler comprising a shield of rigid material shaped to fit over the end portion of the nose, a ridge projecting downwardly from the lower inner margin of said shield and provided with a bore extending therethrough from one end to the other, said ridge being adapted to lie closely adjacent to the upper lip when the shield is in its operative position, holes in said shield connecting said bore with the nose receiving recess in the shield, and a spring gripper fastened to the shield and having padded end portions to grip the hard intermediate portion of the nose and to hold said shield in its operative position.

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