

J. D. KERR.

INHALER.

APPLICATION FILED JULY 26, 1909.

988,352.

Patented Apr. 4, 1911.

Fig - 1 -

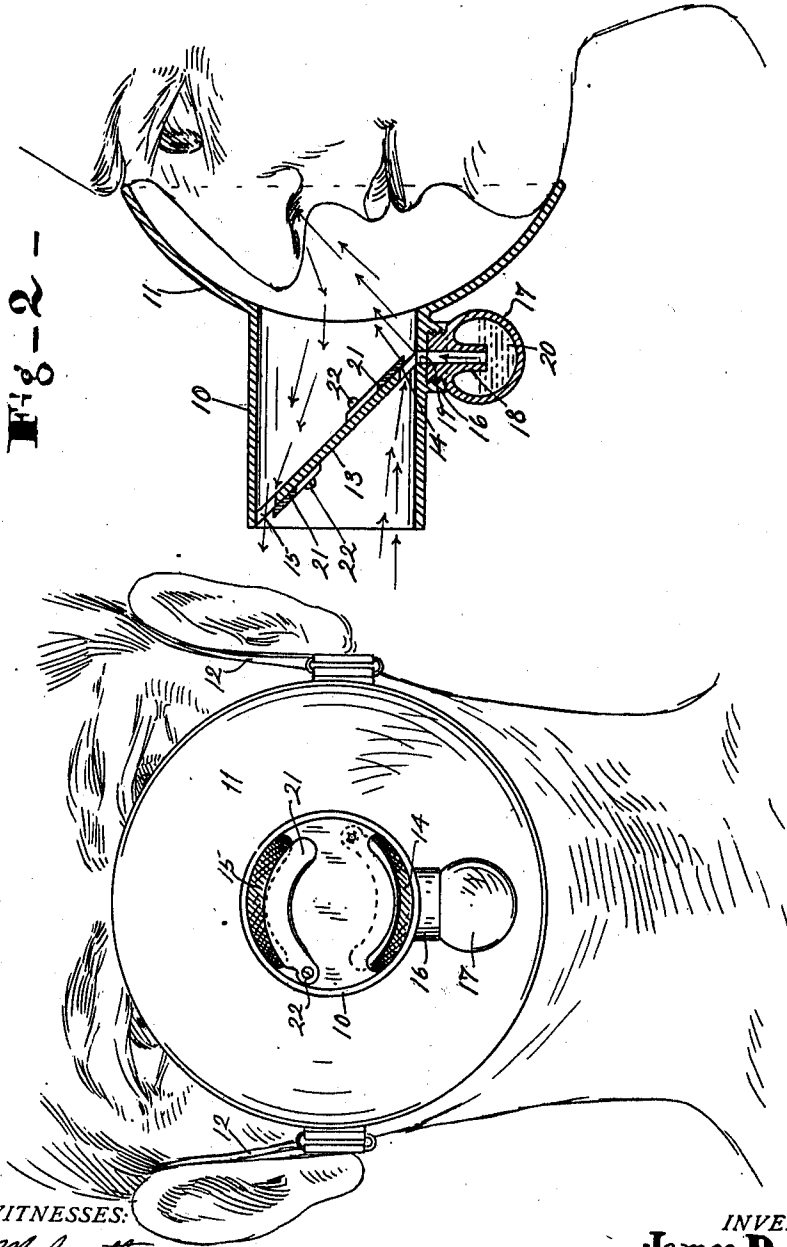
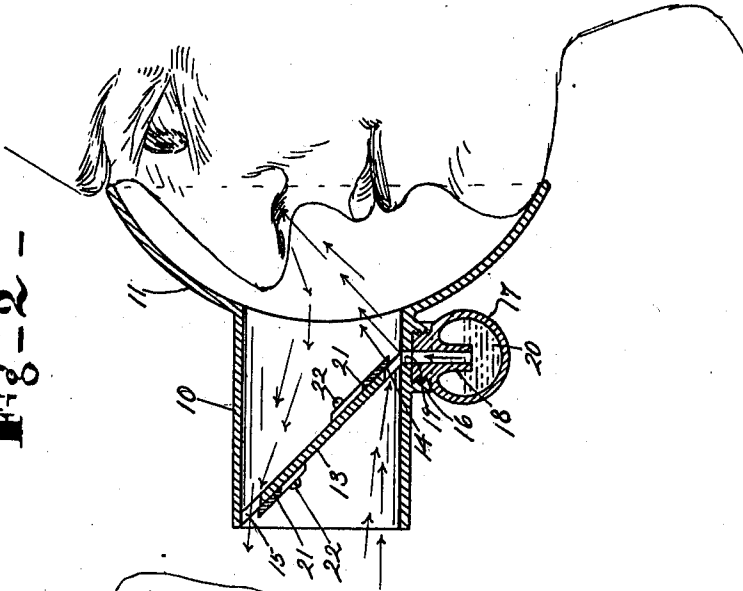


Fig - 2 -



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INHALER.

Specification of Letters Patent.

Patented Apr. 4, 1911.

988,352.

Application filed July 26, 1909. Serial No. 509,737.

To all whom it may concern:

Be it known that I, JAMES D. KERR, of Greens Fork, county of Wayne, and State of Indiana, have invented a certain new and useful Inhaler; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which like letters refer to like parts.

The object of this invention is to provide an improved inhaler and exhaler suitable for the treatment of diseases of the nose, throat and lungs, which will be very simple in construction and yet satisfactory in operation.

The chief feature consists in providing within a suitable casing secured in front of the nostrils a plate inclined inwardly toward the face of the user and outwardly in the other direction, and with openings in the top and bottom, so that the inclination of said plate alone will cause the incoming air to pass through the inner opening, and the outgoing air to pass through the outer opening, and a receptacle for medicine, or the like, is secured to the casing with its outlet at the inner opening through which the air passes and sweeps over the nozzle of such medicine receptacle and thereby takes up the medicine and carries the same to the pulmonary tract. The medicine receptacle is so made that it will not discharge when a person using the inhaler lies on a pillow or in any other position ordinarily occupied by individuals. It is thus seen that the inhaler proper is really made of one piece, the casing and inclined plate being secured together, and its simplicity is, therefore, obvious.

The nature of the invention will be understood from the accompanying drawings and the following description and claims.

In the drawings Figure 1 is an elevation of the device in place on a man's head. Fig. 2 is a central vertical section longitudinally of the device in position and showing part of the face of the user of the inhaler.

The casing consists of a cylindrical portion 10 projecting outwardly from a mask or hood 11, that is secured over the face of the user by any suitable means 12, so that the casing 10 will be in front of the nostrils and mouth. Said cylinder 10 is open at both ends but is provided with a partition-like plate 13 arranged in an inclined position therein and secured stationary in place.

It may be integral or removably secured to the casing 10 and entirely closes the passageway through the casing 10, excepting the inhalation opening 14 at its lower end and the exhalation opening 15 at its upper end. Said plate 13 is inclined downwardly toward the face of the user and upwardly away from the face of the user, so that during inhalation the air from the outside will naturally be deflected by the inclined plate 13 downwardly through the inhalation opening 14, while during exhalation the air will be deflected upwardly by said inclined plate out through the upper opening 15. Since, therefore, all the air during inhalation passes through the inhalation opening 14, the medicine supply is located at that point. An internally threaded projection 16 extends downwardly from the casing 10 below the opening 14, so as to receive the externally threaded nipple of the medicine receptacle 17, which screws into place. The passageway 18 leading from said medicine receptacle registers with the port 19 through the bottom of the casing 10, which port discharges into the inhalation opening 14, whereby the air will sweep over said port 19 and draw up vapor and minute particles from the receptacle 17.

To prevent the medicine from escaping from the receptacle when a person using the device is lying down, there is a tubular projection 20 within the medicine receptacle that prolongs the passageway 18 so that when the device is lying sidewise the medicine will be on a lower level than the outlet. This receptacle may be made of any suitable material and of such dimensions as to the parts thereof which bring about the result intended.

There are shown herein curved plates 21 pivoted by the screws 22 to the plate 13 in position to partially close the openings 14 and 15 and thus enable the extent of said openings to be modified and regulated. The screws 22 should be tight enough to hold said plates 21 in any position to which they might be adjusted. While these adjusting plates 21 may be advantageous, they are not necessary to the operation of the device.

What I claim as my invention and desire to secure by Letters Patent is:

1. An inhaler including a tubular casing with both ends open and one end formed to fit over the face of a person and through which air is adapted to pass to and from the

nostrils, and a plate rigidly secured across said tubular casing in an inclined position and provided with openings at the opposite sides thereof which are nearest to and most remote from the face of the wearer, whereby
5 air during inhalation will pass through the near opening in said plate and during exhalation will pass through the remote opening in said plate, and means for introducing
10 medicine into the casing near the inhalation opening.

2. An inhaler including a casing through which air passes during inhalation and exhalation, a plate secured in and across said
15 casing and inclined downwardly toward the inner end of the casing and upwardly toward the outer end thereof, openings at the top and bottom of said plate, said casing having a medicine port at the lower side
20 thereof registering with the lower opening through said plate, and a medicine receptacle secured to the casing with its outlet registering with said medicine port through the casing.

25 3. An inhaler including a casing through which air is adapted to pass to and from

the nostrils, a plate placed across the same in an inclined position and provided with openings at the opposite sides thereof, whereby air during inhalation will be caused to pass through the opening which is nearer the inner end of said casing and during exhalation will be caused to pass out through the opening nearer the outer end of the casing, and adjustable plates for modifying the extent of said openings.

4. An inhaler including a casing through which air passes during inhalation, a medicine receptacle secured thereto and discharging into said casing, said receptacle having an inward extension in the body thereof for prolonging the outlet passageway from said receptacle, whereby fluid cannot flow by gravity out of the receptacle.

In witness whereof, I have hereunto affixed my signature in the presence of the witnesses herein named.

JAMES D. KERR.

Witnesses:

EARL STEVENSON,
SENO KAUCHER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."