

No. 817,708.

PATENTED APR. 10, 1906.

G. F. HARTZ.
INHALER.

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Fig. 1.

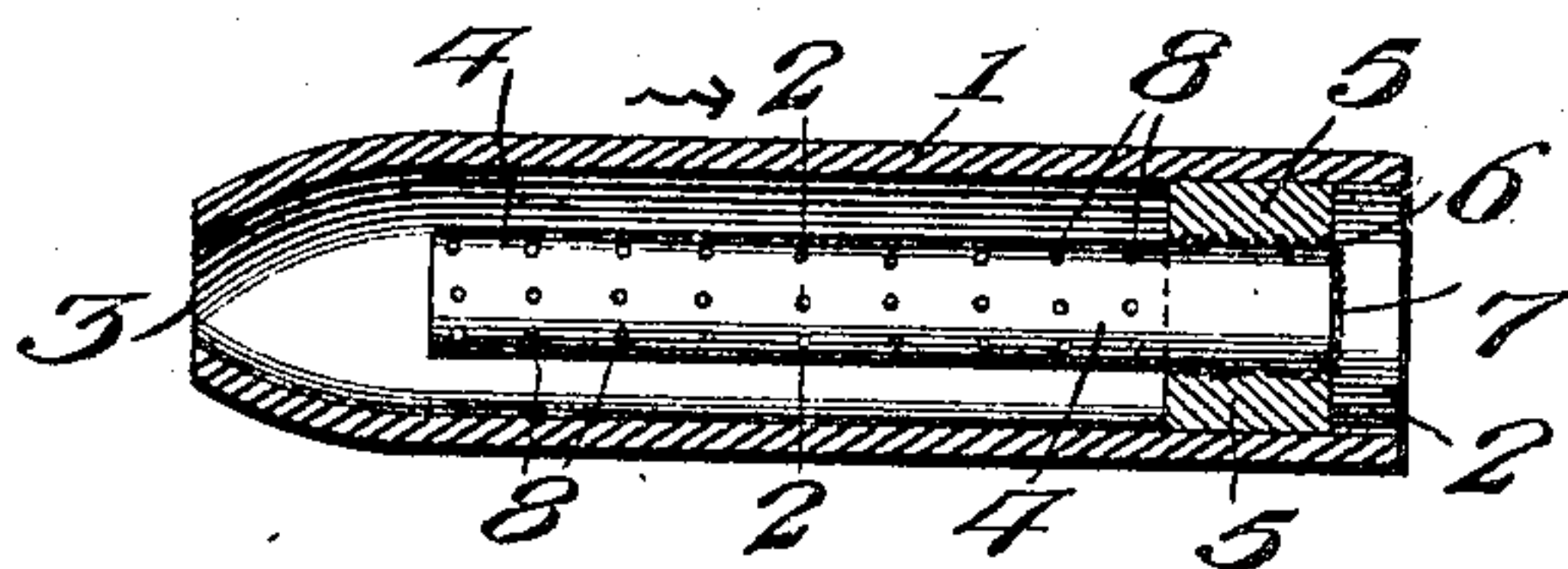
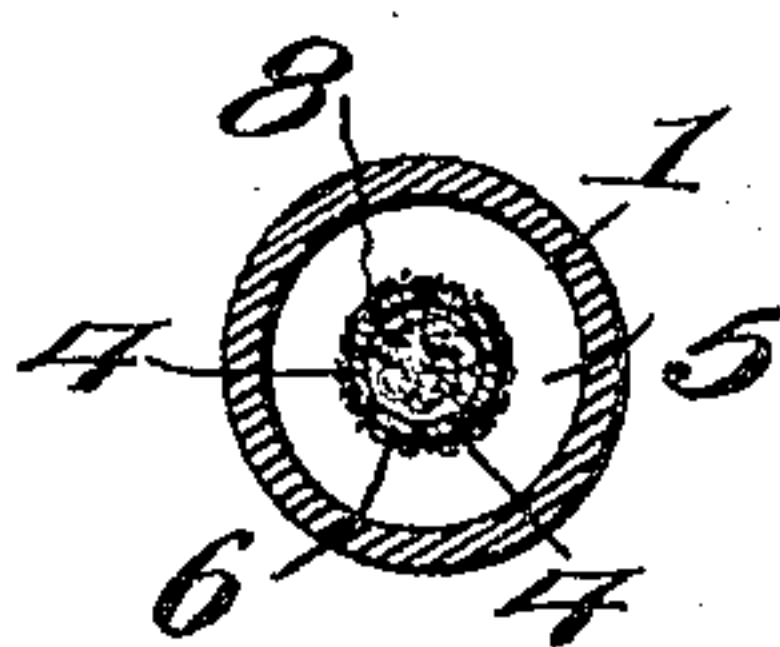


Fig. 2.



Witnesses

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GEORGE F. HARTZ, OF DURANT, IOWA.

INHALER.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, GEORGE F. HARTZ, a citizen of the United States of America, residing at Durant, in the county of Cedar and State of Iowa, have invented new and useful Improvements in Inhalers, of which the following is a specification.

My invention relates to inhalers, and its primary object is to provide a novel and highly-useful device of this character wherein the medicament-containing tube is so arranged within a casing that the air is brought directly into the tube and discharged therefrom into the casing, from whence it is conveyed to the user whereby to more thoroughly saturate the air, and thus provide a more effective device.

A further object of the invention is to provide an inhaler which is simple and durable of construction, one which may be easily and quickly refilled, and one which may be manufactured and sold at a comparatively low cost.

With the above and other objects in view the invention consists in the construction, combination, and arrangement of parts hereinafter fully described, claimed, and illustrated in the accompanying drawings, wherein—

Figure 1 is a central longitudinal sectional view of an inhaler constructed in accordance with my invention, and Fig. 2 is a transverse sectional view on the line 2 2 of Fig. 1 looking in the direction indicated by the arrow.

Referring to the drawings by reference-numerals, 1 designates a casing, which can be manufactured of hard rubber or any other suitable material and which is provided with an entrance-opening 2 and a discharge-opening 3. That end of the casing wherein is located the discharge-opening 3 is reduced to facilitate the application of the inhaler to the nostrils or mouth of a person.

A tube 4, which is designed to contain menthol or any other medicament or combination of medicaments, is removably secured within the casing 1 by means of an annular member 5. The member 5 is provided with an opening 6, adapted to receive one end of the tube 4 and has such frictional engagement with the casing 1 that all liability of its becoming displaced is obviated. The tube 4 has one of its ends closed by means of a screen 7, which may be constructed of any suitable material and which is held in applied position by means of the member 5. The

tube 4 is provided with a plurality of openings 8, which increase in numbers gradually toward that end of the tube located adjacent the discharge-opening 3.

The tube 4 may be supplied with menthol or any other medicament or combination of medicaments, and the several parts of the inhaler may be assembled in the following manner.

The screen 7 is first stretched over one end of the tube 4 and is held in applied position by the application of the member 5 to the tube. The screen provides a closure for one end of the tube 4, so as to prevent the displacement of the medicament, and after the same has been applied the tube is righted and provided with any suitable medicament. After the tube has been supplied the other end thereof may be closed by means of a stopper composed of cork or any other suitable material. The tube is now ready for application to the casing 1, and it is supported centrally therewithin by the member 5, which has such engagement with the casing that all liability of the accidental displacement of the tube is avoided. The air enters the casing 1 through the opening 2 and passes directly into the tube 4 through its screen end. The air is thus brought into direct contact with the medicament, and it is passed from the tube through the opening 8 therein in a thoroughly-saturated condition. The saturated air is taken through the nostrils or mouth through the entrance-opening 3. The screen 7 not only provides means for retaining the medicament within the tube 4, but also prevents dust and other fine particles from entering the tube 4.

It is apparent from the above description, taken in connection with the accompanying drawings, that I provide an inhaler wherein the medicament-tube is so secured within a casing that the air is brought into contact directly with the medicament, that I provide means which not only prevents the displacement of the medicaments within the tube, but also prevents the entrance of foreign matter into the tube, and that I provide means which not only secures the tube within a casing, but which also retains the first-mentioned means in applied position.

Changes in the form, proportions, and minor details of construction may be made within the scope of the invention without departing from the spirit or sacrificing any of the advantages thereof.

Having fully described and illustrated my invention, what I claim is—

1. In an inhaler, a casing, a tube located within the casing, a screen applied over one
5 end of the tube, and a member for retaining the screen in applied position and for securing the tube within the casing.

2. In an inhaler, a casing, a medicament-containing tube positioned within the casing,
10 said tube being provided with a plurality of openings gradually increasing in number toward the end thereof adjacent the discharge-opening of the casing, a screen applied over one end of the tube and a member for secur-

ing the screen in applied position, and the 15 tube within the casing.

3. In an inhaler, a casing, a tube located within the casing, a screen applied over one end of the tube, and a member, said member being adapted to retain the screen in applied 20 position and to secure the tube within, and spaced from the inner wall of, the casing.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE F. HARTZ.

Witnesses:

F. LANGFELDT,

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