July 23, 1935. G. C. DECKER 2,009,355

FACIAL INHALER FOR DETECTING HALITOSIS

Filed Oct. 8, 1934

Fig. 1.

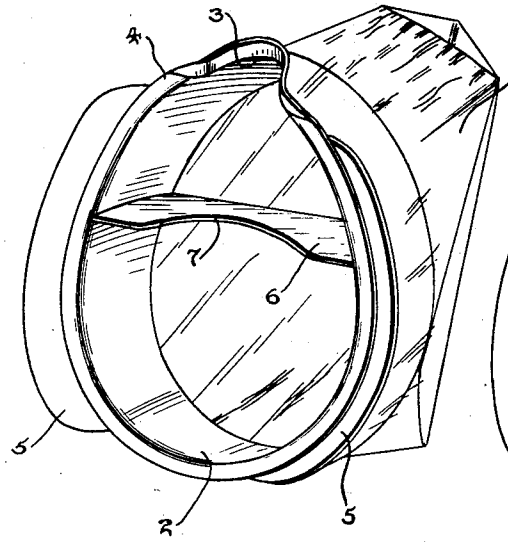



Fig. 2.

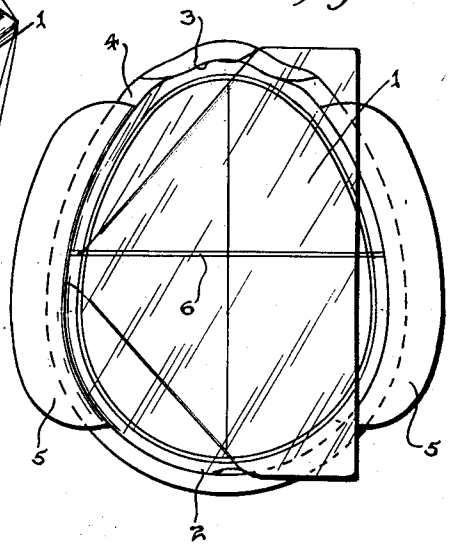



Fig. 4.

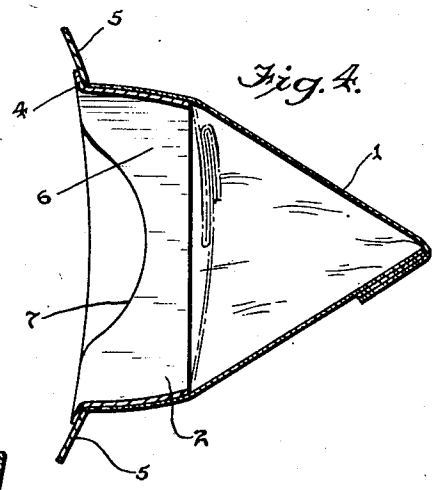
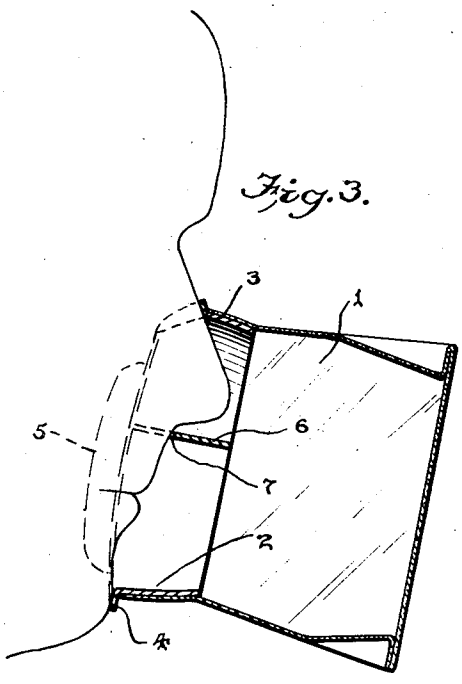



Fig. 3.




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# UNITED STATES PATENT OFFICE

2,009,355

## FACIAL INHALER FOR DETECTING HALITOSIS

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Application October 8, 1934, Serial No. 747,475

2 Claims. (Cl. 128—2)

The invention relates to a facial inhaler for enabling a person to determine whether or not he or she has halitosis.

The object of the present invention is to provide a simple practical and inexpensive facial inhaler of strong durable and compact construction adapted to be tightly fitted against the face of a person, so as to enclose the mouth and nose and form an air-tight connection surrounding the same for enabling a quantity of the breath of a person to be collected to enable the person to determine readily whether he or she has halitosis, so that such condition may be readily remedied.

A further object of the invention is to provide a facial inhaler of this character equipped with a flexible collapsible bag to enable the same to be collapsed when the facial inhaler is placed in position on the face of a person, the collapsible bag being adapted to be expanded when the wearer of the device blows or exhales from the mouth into the bag thereby enabling the breath of the person contained within the collapsible bag to be inhaled or breathed through the nose, so that it will be readily evident by the person using the device whether or not he or she has halitosis.

With these and other objects in view, the invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawing and pointed out in the claims hereto appended, it being understood that various changes in the form, proportions and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawing:

Figure 1 is a perspective view of a breath detecting facial inhaler constructed in accordance with this invention, the view being taken looking into the mouth of the bag and the latter being distended.

Figure 2 is a front elevation of the same, the bag being collapsed.

Figure 3 is a vertical longitudinal sectional view, the parts being arranged as shown in Figure 1.

Figure 4 is a horizontal sectional view of the same.

In the accompanying drawing in which is illustrated the preferred embodiment of the invention, the breath detecting facial inhaler comprises in its construction a relatively short horizontally disposed collapsible bag 1 designed to be constructed of regenerated cellulose foil or film or other suitable material closed at the outer or front end and provided at the inner or rear end with a stiff marginal rim preferably of similar material. The outer closed end of the collapsible bag is of ordinary bag construction and the relatively wide stiff rim at the mouth of the bag may be formed integral with the bag or the latter as illustrated in the accompanying drawing may be secured to the marginal rim exteriorly thereof by an adhesive or other suitable means. However, instead of employing a collapsible bag a rigid bag or container may be used. The collapsible bag, however, is preferable as the bag as illustrated in Figure 2 may be collapsed and be inflated or expanded by the breath of a person and when inflated from a collapsed condition by breath from the mouth of a person the bag will be filled substantially with the breath of a person undiluted with air thereby enabling halitosis to be more easily detected even with persons where the halitosis is not pronounced.

The rim of the mouth of the bag is substantially oval with the smaller end at the top and it is provided thereat with a tapering recess 3 presenting curved edges and conforming to and adapted to fit the nose of a person adjacent the bridge thereof to enable the mouth of the bag to fit tightly against the face of a person and encompass the nose and mouth, so that breath may be exhaled into the bag from the mouth and inhaled through the nose without materially being affected by the surrounding atmosphere. The stiff rim is provided at the mouth of the bag with a narrow marginal flange 4 extending outwardly from the mouth of the bag and adapted to form a bearing surface to enable the device to be fitted tightly against the face of a person to form an air tight connection at the mouth without irritation of the face or any other discomfort resulting from the use of the device. If desired cushioning means such as marginal tubing may be provided at the mouth of the bag to insure such a fit of the facial inhaler against the face of a person as to prevent any air from entering the device at the mouth of the bag when the device is arranged against the face of a person for use.

The rim at the mouth of the bag is of uniform width except at the nose receiving recess and it is provided at opposite sides with wings 5 diverging from the side portions of the marginal flange 4 and adapted to fit against the face at the cheeks thereof to facilitate effecting a tight fit of the device against the face and a firm positioning of the device on the face while in use. The wings which are of substantially uniform width except at

the ends which are tapered may be constructed of any suitable material and they present broad bearing surfaces to the face of the wearer and contribute to a comfortable fit of the device against the face.

The facial inhaler, which when applied to the face is closed to the outside atmosphere, is provided within the stiff rim at the mouth of the bag with a horizontal plate 6 of substantially the width of the rim at its ends which may be secured to or connected with the rim in any desired manner.

The plate which extends transversely entirely across the mouth of the bag is provided adjacent the marginal flange with a curved recess 7 presenting a concavely-curved edge to the upper lip to fit the latter and provide a tight connection between the plate and the upper lip at a point above the mouth of the wearer. The transverse plate which is interposed between the mouth and nose of the wearer forms a baffle partition and divides the mouth of the bag into upper and lower portions and at the same time provides a brace for reinforcing the device at the mouth of the bag adjacent the collapsible portion of the latter. The bag is adapted to be collapsed against the inner straight edge of the transverse plate and when a person exhales or blows into the device the breath will enter the mouth of the bag below the baffle partition and will inflate the bag before passing to the nostrils, so that a sufficient volume of the breath will be exhaled into and confined within the collapsible bag before the breath is inhaled by the nostrils. This will enable the even faint halitosis to be readily detected and corrected. Also the baffle partition will be found of material advantage when a rigid bag or receptacle is employed instead of a collapsible bag as it will insure a sufficient amount of the breath of a person to be exhaled into the device before being inhaled through the nose of the wearer.

What is claimed is:

1. A breath detecting facial inhaler consisting of a relatively short collapsible bag disposed approximately horizontal and closed at the outer end and closed to the outside atmosphere when applied to the face and provided at the inner end with a stiff substantially oval rim having a relatively broad bearing surface to fit against the face of a person and provided at the narrow end of the oval rim with a recess arranged to fit the nose of a person, a transverse baffle partition extending entirely across the mouth of the bag and dividing the same into an upper nose receiving portion and a lower mouth receiving portion and having an edge arranged to fit tightly against the upper lip of the wearer, said bag being formed of impervious material and adapted to be collapsed against the partition and to be expanded or inflated by breath exhaled through the mouth of the wearer and permitting the breath contained within the collapsible bag to be immediately inhaled through the nose of the wearer.

2. A breath detecting facial inhaler consisting of a relatively short collapsible bag disposed approximately horizontal and closed at the outer end and closed to the outside atmosphere when applied to the face and provided at the inner end with a stiff substantially oval rim having a relatively broad bearing surface to fit against the face of a person and provided at the narrow end of the oval rim with a recess arranged to fit the nose of a person, a transverse baffle partition extending entirely across the mouth of the bag and dividing the same into an upper nose receiving portion and a lower mouth receiving portion and having an edge arranged to fit tightly against the upper lip of the wearer, said bag being formed of impervious material adapted to be collapsed against the partition and to be expanded or inflated by breath exhaled through the mouth of the wearer and permitting the breath contained within the collapsible bag to be immediately inhaled through the nose of the wearer, and side wings located at opposite sides of the mouth of the bag and connected with the rim thereof and diverging therefrom and arranged to fit against the cheeks of a person, said wings being of material length and extending from the upper portion to the lower portion of the mouth of the bag.

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