

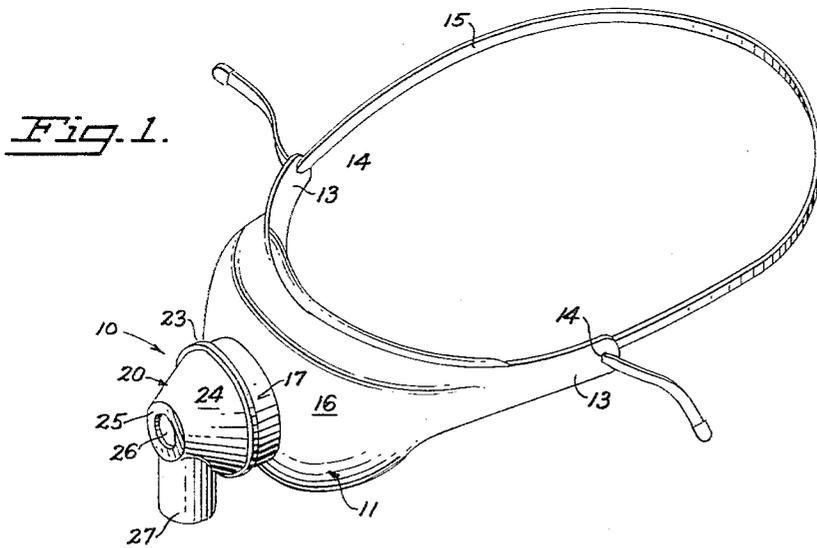
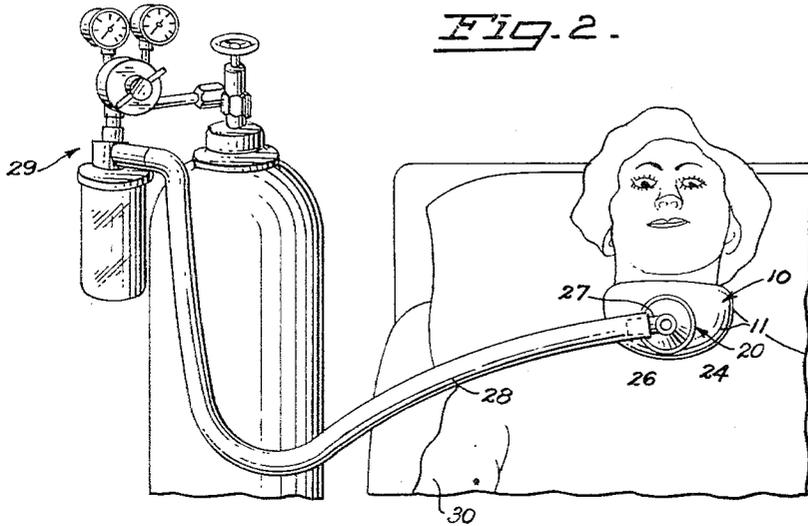
Feb. 22, 1966

A. C. HUDSON
TRACHEOTOMY MASK

3,236,236

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2 Sheets-Sheet 1



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Fig. 4.

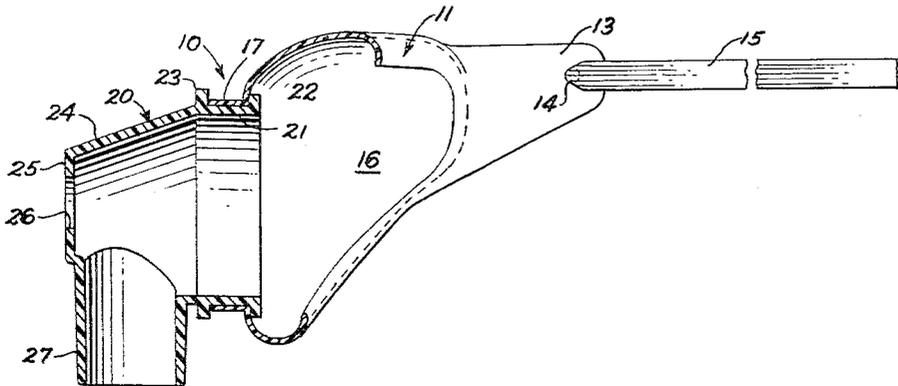
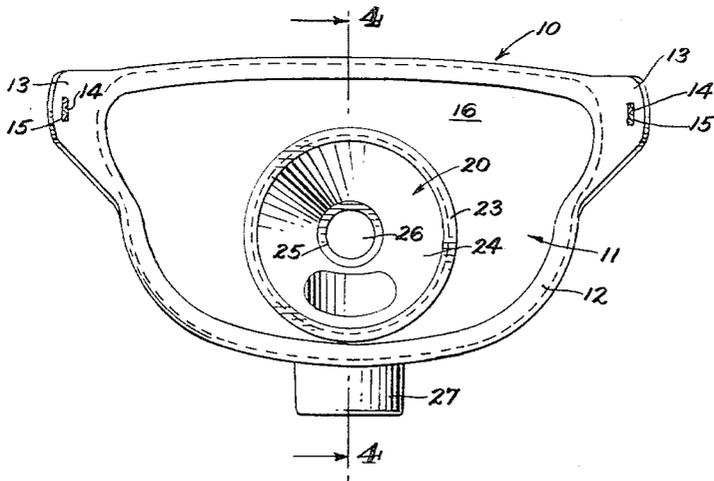


Fig. 3.



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3,236,236

TRACHEOTOMY MASK

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2 Claims. (Cl. 128—185)

This invention relates to an improved tracheotomy mask.

The mask of this invention, which may be used for either tracheotomy or laryngectomy, solves several problems. One is that in the tracheotomy masks heretofore in use, the oxygen tube had to be connected to a single particular fitting on one side of the mask, an inconvenience in that often the other side would have been more convenient, and for a sitting patient neither side was as good as the lower end. The present invention provides a swiveling tubing adapter that can be moved to either side for a prone patient and can be swung to a down position where a sitting patient may use it.

Another problem solved by the invention is that of providing a mask through which suction devices are conveniently inserted, and it does this by providing a novel central opening serving the double purpose of an exhalation opening and an insertion opening for suction tubes or other instruments. The mask itself is easily removed if it is desired to use other apparatus which will not go through the opening, but with this invention removal is rarely required for this purpose.

Another object of the invention is to provide a tracheotomy mask which can be made disposable.

Another one is to provide a tracheotomy mask that is very comfortable for the patient.

Other objects and advantages of the invention will appear from the following description of a preferred embodiment thereof.

In the drawings:

FIG. 1 is a view in perspective of a tracheotomy mask embodying the principles of the invention.

FIG. 2 is a fragmentary view in perspective showing the mask on a patient.

FIG. 3 is a view in rear elevation of the mask of FIG. 1.

FIG. 4 is a view in section taken along the line 4—4 in FIG. 3.

The mask 10 of the present invention incorporates a soft plastic body 11 made of a single unitary molded piece of polyethylene or similar plastic having an anatomical molding to fit smoothly around a person's throat (see FIG. 1). The body 11 is provided with a soft intumed flange 12 that follows a closed curve to seal off an area of the throat but to do so comfortably. The body 11 is provided with a pair of tab-like projections 13 having openings 14 in which a strap 15 of elastic or other suitable material is secured for holding the mask 10 on the patient with the flange 12 snugly engaged. The area 16 enclosed by the soft flange 12 extends outwardly away from the throat so that only the flange 12 touches the throat. At a generally central portion of the area 16 is an open tubular circular cylindrical projection 17.

A tubing adapter member 20 is provided as a separate piece of a harder kind of molded plastic more rigid than the body 11. It is provided with a circular cylindrical portion 21 having a pair of spaced-apart end flanges 22 and 23 at the opposite inner and outer ends, about the same distance apart or slightly more so than the length of the body projection 17 of the body. The flexible projection 17 is stretched around the inner flange 22 and snaps back in between the two flanges 22 and 23, so that the tubing adapter 20 can be rotated freely or swivel

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around relative to the body 11, and yet is held firmly at all times by the flanges 22 and 23 and the portion 21.

Beyond the outer flange 23, the tubing adapter 20 is provided with a frustoconical portion 24 that is preferably coaxial with the cylindrical portion 21. The portion 24 terminates in an annular end wall 25 which provides a circular opening 26 suitable for exhalation and also for the insertion of suction instruments. Being centered with respect to the body 11, the opening 26 provides great convenience for inserting such instruments.

From the wall of the frustoconical portion 24 a slightly tapered but generally cylindrical tubing 27 projects at a right angle to the axis of the frustum 24. The tube 27 is part of the one-piece adapter 20, which is molded as a unit. This projection 27 is adapted for attachment to a suitable hose or tubing 28 which comes from the source 29 of oxygen or air being supplied to the patient.

In assembly, the body portion 11 is simply stretched and snapped around the tubing adapter portion 21 and then swivels freely therearound. In use, the mask 10 is placed over the patient's throat centered around the tracheotomy opening with the strap being adjusted to provide the desired tightness. Then the tubing adapter 20 is swiveled to put the tubing 27 at whatever side or position is most comfortable for the patient; it can also be adjusted while it is in use. Thus the oxygen supply 29 may be on either side of the bed 30, if the patient is prone, or on either side of a chair, if the patient is sitting, and the tubing 27 may be at one side or directly below or at the top, as desired, in any position that is most comfortable and most efficient and convenient. The exhalation air passes out through the opening 26 and through this same opening may be inserted any tubes for suction or other instruments that may be desired.

To those skilled in the art to which this invention relates, many changes in construction and widely differing embodiments and applications of the invention will suggest themselves without departing from the spirit and scope of the invention. The disclosures and the description herein are purely illustrative and are not intended to be in any sense limiting.

I claim:

1. A tracheotomy mask including in combination:

(1) a flexible plastic body having an outwardly bulged forward wall, a relatively flat horizontal crescent shaped top wall intumed from said forward wall and providing a curved inner edge and an elongated chamber therebeneath, and the lower edge of said body lying forward of said crescent shaped top wall at the center of the mask and curving rearwardly to fit around the lower throat and opening for the trachea thence upwardly and rearwardly to embrace opposite sides of the throat and adjoin with the remote ends of said crescent-shaped top wall providing at said juncture relatively flat tab-like attaching portions, a substantially continuous flexible sealing flange extending inwardly from said edges over said tab-like attaching portion, and a tubular projection carried by the bulged forward wall of said body between said edges, and

(2) a tubing adapter consisting of a shell having a cylindrical portion with flanges at an inner end and an outer end thereof, said tubular projection of said body being stretched and snapped into place therearound between the two flanges, so that the tubing adapter is rotatable with respect to the body and can be swiveled to any position, said tubing adapter having an unobstructed exhalation opening there-through and a short tubing portion projecting out at right angles to the axis of the cylindrical portion, adapted for connection to an oxygen hose.

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2. The tracheotomy mask of claim 1, in which said relatively flat tab-like portions have strap-anchorage portions beyond said sealing flanges thereon.

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