

[54] **DISPOSABLE VOMITING BAG**
 [76] Inventor: **Kenneth F. Hall**, 9205 W. 73rd
 Place, Arvada, Colo. 80005
 [22] Filed: **Dec. 17, 1973**
 [21] Appl. No.: **425,512**

3,693,192 9/1972 Knotts..... 4/110
 3,797,734 3/1974 Fleury et al..... 229/62.5

Primary Examiner—William I. Price
Assistant Examiner—Stephen P. Garbo
Attorney, Agent, or Firm—Ancel W. Lewis, Jr.

[52] **U.S. Cl.**..... 229/63; 4/110; 128/2 F;
 128/275; 128/295; 128/DIG. 24; 150/11;
 229/62.5; 248/99
 [51] **Int. Cl.²**..... **B65D 33/28**
 [58] **Field of Search**..... 229/62.5, 63; 150/11, 9,
 150/3; 128/292, 295, 275, 2 F, DIG. 24;
 4/110, 285; 248/99

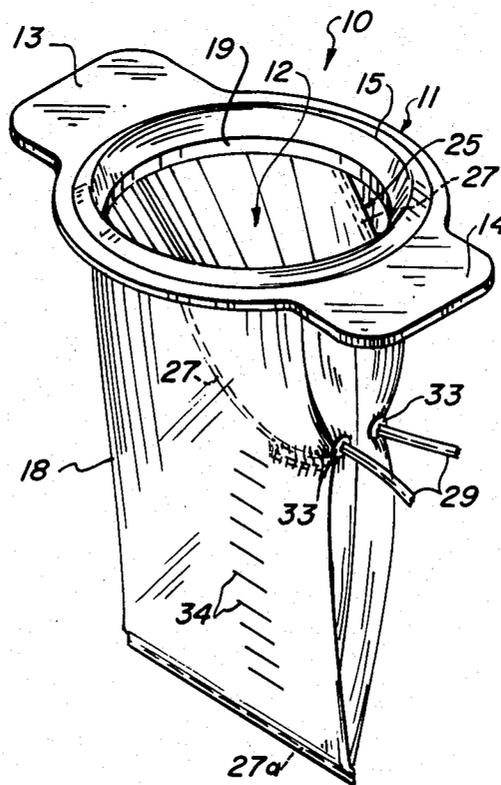
[57] **ABSTRACT**

A disposable vomiting bag has a rigid support portion that supports a flexible bag portion in an open position, the support portion being formed with an inlet opening, diametrically opposed outwardly projecting hand grips and an annular cheek-engaging upstanding rib portion to prevent spillage during use. A flexible inner partition portion extends down from the support portion inside the receiving bag portion and is arranged like a channel to form an inner discharge opening inside the bag portion and a manually operable closure member is provided to close off the inner discharge opening from the inlet opening to prevent the emission of odors from vomituous material that has been discharged through the inner opening into the bag portion.

[56] **References Cited**
UNITED STATES PATENTS

1,526,822	2/1925	Backer.....	248/99 X
2,943,660	7/1960	Seeger.....	150/12
2,980,314	4/1961	Adams.....	229/63 X
3,306,296	2/1967	Moss.....	128/295
3,403,410	10/1968	Benzel et al.	128/295
3,405,714	10/1968	Moss.....	128/295
3,548,906	12/1970	Murphy.....	229/63
3,559,651	2/1971	Moss.....	128/295

9 Claims, 8 Drawing Figures



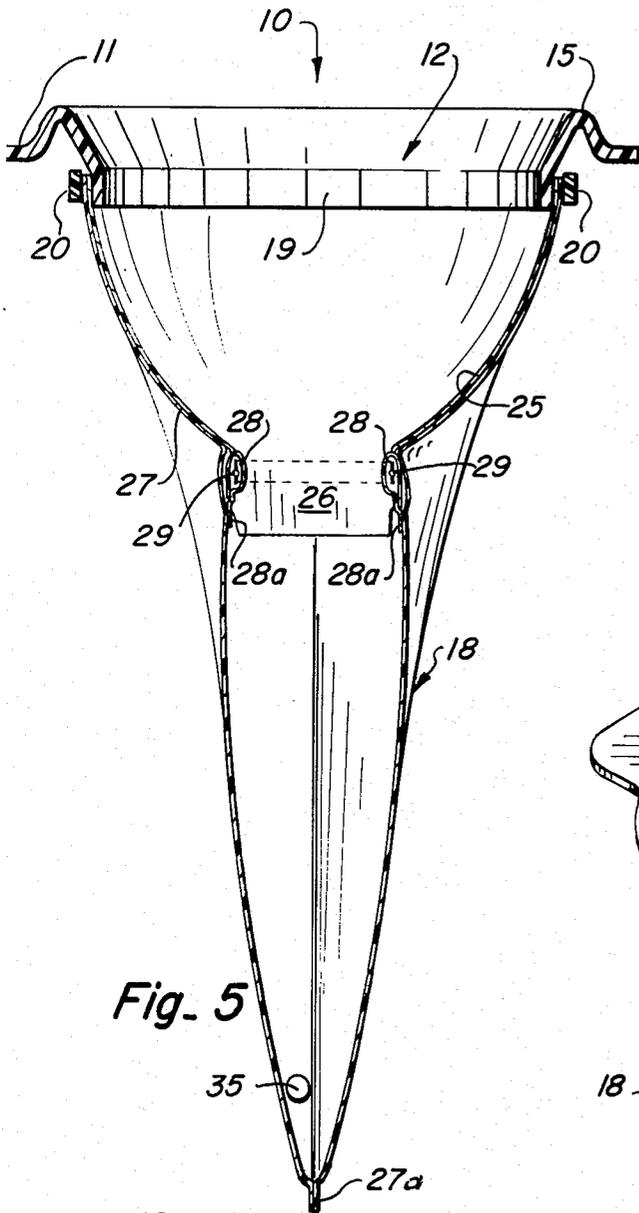


Fig. 5

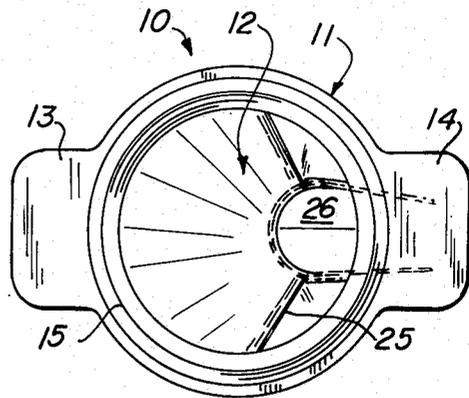


Fig. 4

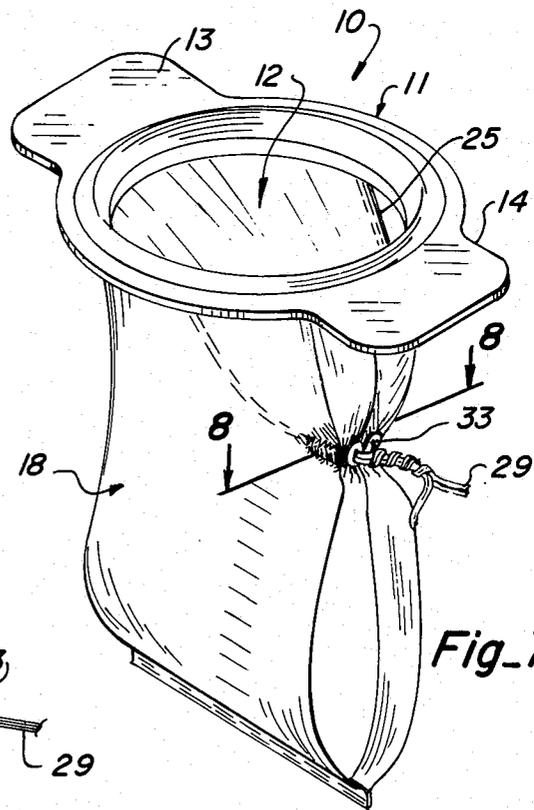


Fig. 7

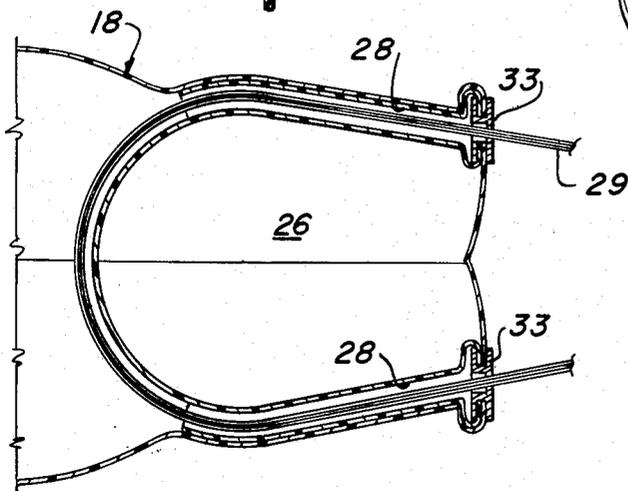


Fig. 6

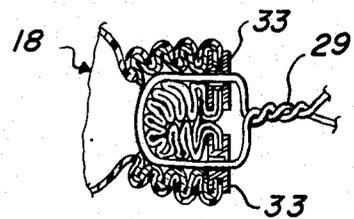


Fig. 8

DISPOSABLE VOMITING BAG

BACKGROUND OF THE INVENTION

This invention relates generally to receptacle-type devices and more particularly to a novel disposable vomiting bag for use in a variety of personal illness situations.

There are a number of situations, such as, for example, during flight in an airplane, or in a hospital when it is important to be able to provide a convenient on-the-spot receptacle for a person who is ill with a potential vomiting condition. It is desirable that this person be taken care of with a minimum of offense to others and at the same time avoid considerable discomfort, odor, and cleaning up.

Accordingly, the principal object of the present invention is to provide a novel disposable vomiting bag that is particularly suited for being available for on-the-spot use and minimizes the likelihood of spillage and unpleasant odors.

Another object of this invention is to provide a disposable vomiting bag that is relatively inexpensive to manufacture, will dispose the receiving bag portion in an open condition, is foldable into a compact size until used and is easy to use and then be thrown away.

Yet another object of this invention is to provide a vomit bag that is characterized by a rigid support portion that is compact in size until used and is readily gripped by the user during use, has a receiving bag portion and has a ready manually operable means to close off the vomitous material in the receiving bag portion to prevent the emission of unpleasant odors.

Other object, advantages and capabilities of the present invention will become more apparent as the description proceeds, taken in conjunction with the accompanying drawings, in which:

FIG. 1 is a perspective view of a disposable vomiting bag embodying features of the present invention;

FIG. 2 is an exploded view with the parts of the vomiting bag shown in FIG. 1 in an unattached condition;

FIG. 3 is a side elevation view of the assembled vomiting bag as shown in FIG. 1;

FIG. 4 is a top plan view thereof;

FIG. 5 is a sectional view taken along lines 5—5 of FIG. 3;

FIG. 6 is a fragmentary sectional view taken along lines 6—6 of FIG. 3;

FIG. 7 is a perspective view of the bag with the tie wire twisted to the closed position;

FIG. 8 is a sectional view taken along lines 8—8 of FIG. 7.

Referring now to the drawings, the disposable vomiting bag shown in generally designated by numeral 10 and comprises a generally annular support portion 11 preferably made of a rigid molded plastic material for rigidity having a circular central inlet opening 12, a pair of diametrically opposed outwardly projecting hand grips 13 and 14 and a cheek-engaging upstanding annular rib 15 projecting upwardly from the support portion adjacent the inlet opening 12. This rib is rounded along the upper edge to fit the contour of the cheek of the user on which it is positioned to prevent spillage particularly when the user is lying on his side or the like.

A receiving bag portion 18 is attached to and depends from the support portion 11 so that the open upper end of the bag is held in an open receiving condition. The upper open end of the bag is suitably attached

to the support portion as by providing a stepped or flange portion 19 over which the open end of the bag fits and a ring 20 fits against the bag and flange portion and may be heat-welded or adhesively secured thereto to hold it in place so that the bag portion receives vomitous material passed through the inlet opening 12. The receiving bag portion 18 is made of a flexible elastomeric film material that readily folds up against the rigid support portion to provide a relatively compact assembly for pre-use storage purposes. An optional tear strip may be embedded in the bottom of the bag portion and with, for example, suitable weakened sections to provide for the dispensing of the vomitous material from the bag portion at a desired time and place by the pulling of the tear strip.

An inner partition portion 25 extends away from the support portion 11 around the inlet opening 12 and projects down into the receiving bag portion 18. The inner partition portion 25 is preferably made from a flexible elastomeric film material blank that is generally V-shaped and will take the form of a part or fragment of a funnel or cone as best seen in FIG. 2 with an upper arcuate portion that fits in the top opening of the bag portion 18 and around and directly in contact with the flange 19 of the support portion so as to be surrounded by and held in place by ring 20 (FIG. 5). The inner partition portion 25 has tapered side edges that are fastened to the inside of the bag portion as by heat sealing or heat welding as represented by dashed lines 27 to form a tapered or funnel-like channel and a portion of the bag 18 completes the cone-shaped configuration with a bottom discharge opening 26 between the upper and lower ends of the bag portion 18. The blank forming the partition portion further has a pair of outwardly projecting flap-like sections adjacent the lower ends that fold over to form a pair of conduits 28 surrounding and forming a part of the discharge opening 26. The folded or loop part making up the conduit is shown as held in place by a heat sealing line 28a. The flap-like sections are secured to the bag below the conduits along heat seal lines 27 and a bottom flap 31 forms an extension below the conduits 28. This locates the discharge opening 25 in an offset position or to one side of the bag portion 18. The bag portion is made of a tubular stock material that is open at the upper end and closed at the lower end by heat seal lines 27a. The bag portion is shown to have lines 34 showing the volume of the contents in cubic centimeters. A deodorant pill 35 is contained in the bag portion to reduce the unpleasant odors of the vomitous material.

A manually operable closure member 29 in the form of a conventional metal tie wire coated with a plastic or paper extends through the conduits 28 and around the back side of the lower part of the partition portion 25 and then projects through grommets 33 mounted in openings 32 in the bag portion. The tie wire 29 has sufficient rigidity to hold the bottom discharge opening 26 in an open position as shown in FIGS. 1 through 6 while the bag portion is folded and when opened to a receiving condition. The outer end of the conduit 28 is shown to fit into the inside flange of the grommet 33 that in turn is fitted in the opening 32 of the bag portion 18.

In use the, the bag portion 18 is folded into a compact unit with the receiving bag portion and partition portion being folded back in itself and against the upper support portion. When required, the user holds the grip portions 13 and 14 and unfolds the bag portion so that it depends from the support portion. The inlet

3

opening 11 is placed in a suitable location for receiving vomitous matter from a user. When the user is lying on his side, the rib is placed against the cheek to prevent spillage. When the patient is sitting in an upright position, the top opening is simply located below the mouth of the user. After the bag portion receives the vomitous material, the ends of tie member 29 are twisted closed. It is understood that a variety of mechanical devices could be used to close off the discharge opening 26.

Although the present invention has been described with a certain degree of particularity, it is understood that the present disclosure has been made by way of example and that changes in details of structure may be made without departing from the spirit thereof.

What is claimed is:

- 1. A disposable vomiting bag comprising:
 - a rigid support portion having an inlet opening and a hand grip;
 - a receiving bag portion supported from the support portion in receiving relation to the inlet opening and having a closed end; and
 - an inner partition portion extending into the inside of the receiving bag portion and narrowing toward the closed end to provide a funnel-like channel terminating in an inner opening of a size substantially smaller than said inlet opening, said partition portion having a closure member operatively associated with said inner opening and manipulated by closing forces applied at an outer side of the bag portion between the inlet opening and the closed end to selectively close off said inner opening to prevent the emission of odors from the receiving bag portion after use said closure member having a portion extending through a side of the receiving bag portion.
- 2. A disposable vomiting bag as set forth in claim 1 wherein said closure member is in the form of a tie wire surrounding said partition portion at the inner opening that seals off the inlet opening from the inside of the bag portion when the end portions are twisted together.
- 3. A disposable vomiting bag as set forth in claim 1 wherein said support portion is rigid and said receiving bag portion is flexible.
- 4. A disposable vomiting bag comprising:
 - a rigid support portion having an inlet opening, a pair of opposed hand grips and an annular upstanding rib adjacent the inlet opening adapted to be placed against the cheek of the user to prevent spillage,
 - a receiving bag portion supported by the support portion in receiving relation to said inlet opening, and
 - an inner partition portion extending into the receiving bag portion to provide a funnel-like channel terminating in an inner opening of a size substantially smaller than the inlet opening, said partition portion having a closure member operably associ-

4

ated therewith to close off the inside of the receiving bag portion from the inlet opening to prevent the emission of odors from said receiving bag portion.

5. A disposable vomiting bag as set forth in claim 4 wherein said support portion with hand grips and rib is made as a unit of a rigid molded plastic material.

6. A disposable vomiting bag as set forth in claim 4 wherein said receiving bag portion and said inner partition portion are made of a flexible, elastomeric film material.

7. A disposable vomiting bag as set forth in claim 4 wherein said bag portion is made of a tubular stock material with volume graduations and means to deodorize the interior thereof.

8. A disposable vomiting bag as set forth in claim 4 wherein said partition portion is downwardly convergent and has opposed side edges fastened to the inside of the bag portion to form a funnel-like channel with a flexible inner discharge opening.

9. A disposable vomiting bag comprising:

- a rigid support portion made of a molded plastic material having a central inlet opening, a pair of diametrically opposed outwardly projecting hand grips and an annular cheek-engaging upstanding rib projecting upwardly from the support portion adjacent the inlet opening, said rib being rounded along the edge to fit the contour of the cheek of the user against which it is placed and a flange portion, a flexible receiving bag portion made of an elastomeric film tubular stock material closed at the bottom and leaving an open end positioned on the flange portion and depending from said support portion, a ring holding the bag on the flange portion, and

an inner flexible partition portion made of an elastomeric film material attached to and depending from the flange portion inside said receiving bag portion, said partition portion being generally V-shaped and fastened along the side edges to the bag portion to provide a part of a funnel-like channel forming a flexible inner discharge opening offset from the inlet opening and of a substantially smaller size than said inlet opening, said partition portion forming a pair of side conduits and having a tie wire, said tie wire extending through the conduits and along the back of the partition portion and having end portions extending through a grommet in an end of each of the conduits to a point outside the bag portion adapted to close off said inner discharge opening and seal the inside of the receiving bag portion upon the twisting of the end portions thereof together.

* * * * *

60

65