Nov. 3, 1970 R. E. GOODMAN 3,537,112

TOILET DEODORANT

Filed Aug. 18, 1967

FIG. 1

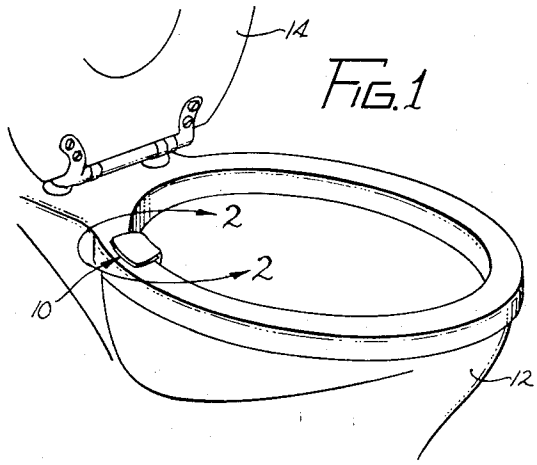
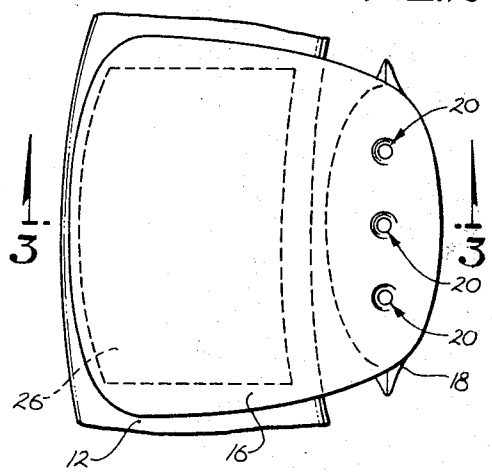


FIG. 2



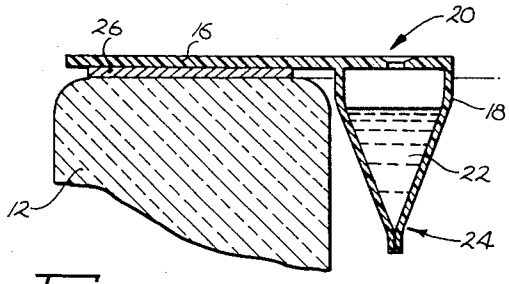


FIG. 3

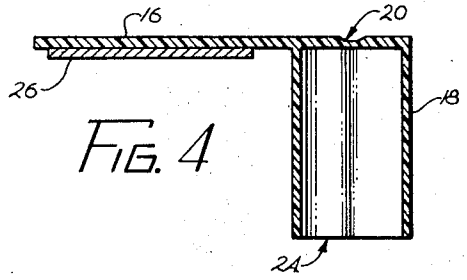


FIG. 4

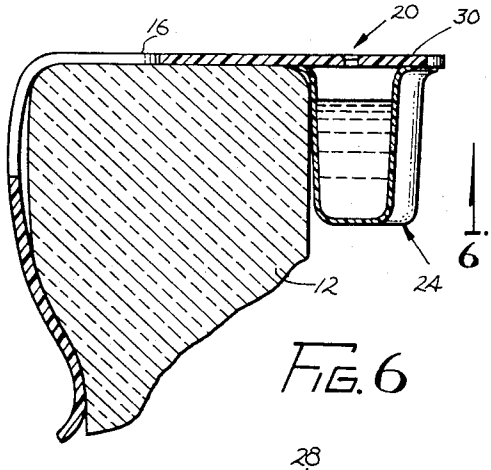


FIG. 6

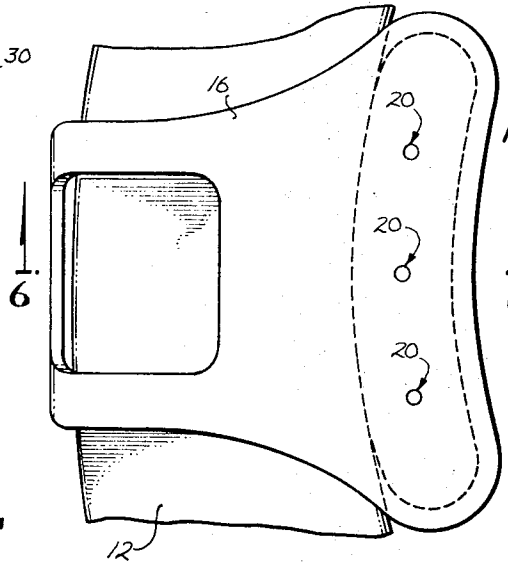


FIG. 5

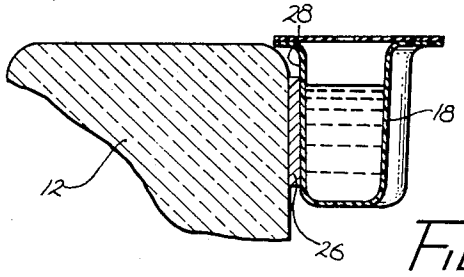


FIG. 7

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TOILET DEODORANT

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ABSTRACT OF THE DISCLOSURE

This invention is for an improved deodorant for the toilet wherein a liquid deodorant is employed in a simple plastic receptacle which may be readily mounted below a toilet seat.

DISCUSSION OF PRIOR ART

It has been conventional practice with respect to toilets to use a solid deodorant suspended in a toilet on a wire bracket. This type of construction which has been conventional for many years has a number of disadvantages. It is of a relatively heavy weight making the transportation cost from the manufacturing plant to a user relatively expensive in comparison to the cost of the device. The solid deodorant is brittle and subject to breakage during shipping. It is usually packaged in cellophane and subject to pin-hole evaporation, this substantially lowering shelf life. The aroma of this form of deodorant is limited and generally unpleasant for use in the home. The cost of the deodorant material is relatively expensive. Use of metal brackets exposed to moisture creates rust and tends to cause and leave rust marks on the associated toilet. In addition, the construction is such that it is difficult to conceal and is subject to tampering by infants. The chemicals employed in the deodorant may be detrimental to the health of such infants.

One attempt to solve the above problems has been the use of an aerosol dispenser employing a suitable liquid deodorant which is vaporized by an aerosol mechanism. This has certain advantages but it is undesirable from the standpoint that it requires a manual operation each time the particular room is to be deodorized. Thus, the dispensing is not automatic. In addition, such aerosol deodorants are expensive and of a relatively large size.

SUMMARY OF THE INVENTION

A deodorant assembly for toilets and the like comprising a plastic member having a receptacle portion for receiving a liquid deodorant; a cantilever support arm extending from one edge of said receptacle for mounting on the ledge of a toilet below the seat; an adhesive layer on the underside of said arm to abut the ledge of the toilet; a sealing portion for closing said receptacle; and a plurality of aperture areas for permitting the deodorant to evaporate from said receptacle when said aperture areas are punctured, said aperture areas and said receptacle being fluid tight for shipping and until said aperture areas are punctured.

The above structure has the advantage of being light in weight, low in cost, rustless, easily concealed, simple in construction, flexible in the type of deodorant that may be employed, and completely safe.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of an embodiment of the device mounted on a toilet;

FIG. 2 is a top view taken in the area 2—2 of FIG. 1;

FIG. 3 is a sectional front view taken along the lines 3—3 of FIG. 2;

FIG. 4 is a sectional front view of the device shown in FIG. 3 prior to the filling with deodorant and the sealing thereof;

FIG. 5 is a top view such as the one of FIG. 2 of an alternate embodiment of the invention;

FIG. 6 is a sectional front view taken along the lines 6—6 of FIG. 5; and

FIG. 7 is a sectional front view of another alternate embodiment of the invention.

DETAILED DESCRIPTION OF THE INVENTION

Referring to FIG. 1, this invented device is a deodorant or dispenser assembly **10** which is attached to a toilet **12** and adapted to be concealed beneath the seat **14**. The dispenser assembly **10** of the embodiment of FIGS. 2–4 comprises a cantilever arm **16** having a receptacle **18** attached thereto. Preferably, the receptacle and arm are integral and formed of plastic by a conventional molding process and constructed from flexible polyethylene. The receptacle **18** has aperture areas **20** coupled to the receptacle to enable liquid deodorant **22** located therein to evaporate and automatically deodorize the toilet. The aperture areas **20** shown in FIGS. 2 and 3 have been punctured to enable evaporation. In the manufactured state the aperture areas are weakened sections which facilitate their being punctured by the user (FIG. 4). The number of holes may be varied according to the deodorant **22** employed and the deodorizing effect which is sought to be accomplished. The cantilever arm **16** is attached to the toilet by a layer of adhesive **26** which is attached to the underside of the cantilver arm **16** and adjacent the ledge of toilet **12**. It is within the scope of the invention to use a self clamping integral plastic arm to replace adhesive **26** such as shown in FIGS. 5 and 6.

In the form of the invention shown in FIGS. 2–4, the aperture areas **20** are opposite the open end **24**. When filling the receptacle, the open end **24** is inverted from the position shown in FIG. 4. Upon the filling of the receptacle **18** to a suitable level, the open end is sealed by heat sealing methods applicable to polyethylene or other suitable techniques to form a fluid tight receptacle as shown in FIG. 3. During the shipment the receptacle **18** is fluid tight.

The above construction provides a receptacle which is fluid tight during shipment, subject to filling during manufacture and subject to dispensing when installed in the toilet by puncture of the aperture areas. The deodorant assembly is light in weight and adapted to receive any suitable deodorant. The deodorant may be selected according to the particular odor desired. This deodorant is inaccessible to infants. The entire assembly may be substantially concealed. The receptacle is easily filled during manufacturing. It is readily subject to opening so that the deodorant may be dispensed in a controlled manner. The device being made of plastic and employing an adhesive for attachment to the toilet ledge avoids any rust problem. In addition, the device is simple in construction and subject to fabrication at a relatively low cost.

An alternate embodiment to this invention is shown in FIGS. 5 and 6. In this embodiment of the invention, the receptacle **18** is inverted from that shown in FIGS. 2–4. This construction of the receptacle avoids the necessity of a fluid tight heat sealed closure which supports the deodorant liquid. In this embodiment the sealing of the receptacle is accomplished by a separate overlay member **30** which is joined and sealed to the cantilever arm **16** and receptacle **24**. The overlay member **30** contains the aperture areas **20** which are substantially identical to the aperture areas shown in FIGS. 2–4. The overlay member **30** may be joined to the receptacle **24** and cantilever arm **16** by an adhesive or by heat sealing means or by other similar adhering devices. This embodiment includes a plastic clamping arm which may be

integral therewith, attached to or superimposed on the receptacle construction. In the form shown in FIGS. 5 and 6 the clamping arm is integral with the overlay member **30**. The entire device is molded in one operation and completed by filling and heat sealing. No additional individual packaging is required as the unit may serve as its own package. The clamping arm may be shaped or may contain an aperture to facilitate the clamping action and impart flexibility to arm.

Another embodiment of the invention is shown in FIG. 7. This embodiment of the invention is similar to those shown in the preceding figures with the exception that the cantilever arm is omitted and the adhesive **26** is applied to the wall of the container adjacent the ledge of the toilet **12**. In this arrangement, it is important that the receptacle conform over at least part of the surface of its inside wall **18** to the shape of the ledge of the toilet so that the adhesive will have an adequate area to adhere to. The receptacle and sealing structure may be similar to that employed in the previous embodiments. This embodiment has the advantage of a smaller size and less material.

Although this invention has been disclosed and illustrated with refernce to particular applications, the principles involved are susceptible of numerous other applications which will be apparent to persons skilled in the art. The invention is, therefore, to be limited only as indicated by the scope of the appended claims.

What is claimed is:

1. A toilet deodorant assembly for toilets and the like comprising a plastic elongated receptacle portion for receiving a liquid deodorant:

a cantilever plastic support arm extending from one edge of said receptacle mountable upon the ledge of a toilet below the seat, said arm having a means for attachment to the ledge of the toilet;

a sealing portion for closing said receptacle; and

a plurality of aperture areas for permitting the deodorant to evaporate from said receptacle when said aperture areas are punctured, said aperture areas and said receptacle being fluid tight for shipping and until said aperture areas are punctured.

2. The structure recited in claim **1** wherein said receptacle comprises an open-ended receiver having an open end extending below said arm, said arm is integral with said receptacle in the form of a single molded plastic form, said aperture areas being in the portion of the receptacle opposite the open end and said sealing portion formed by said open end being heat sealed to form a fluid tight receptacle.

3. The structure recited in claim **1** wherein said receptacle and cantilever arm are integral in the form of a single molded plastic shape, and said sealing portion is a separate overlay member attached to at least a portion of said arm and over said receptacle to form a fluid tight receptacle, said sealing portion having said aperture area therein located over said receptacle.

4. The structure recited in claim **1** wherein said means for attachment is a layer of adhesive on said arm.

5. The structure recited in claim **1** wherein said means for attachment is a clamping arm attached to said cantilever arm.

6. The structure recited in claim **5** wherein said clamping arm is integral with said cantilever arm.

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