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TOILET

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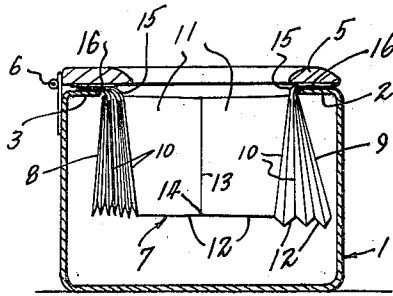


Fig. 1.

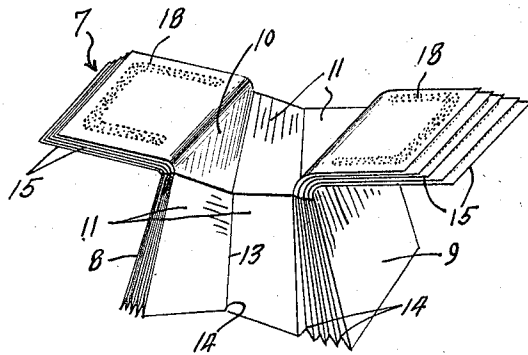


Fig. 3.

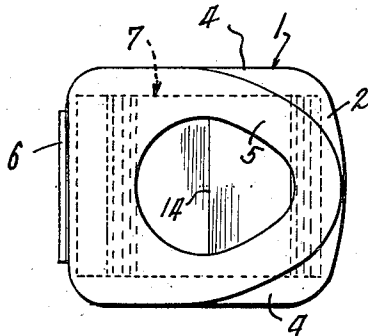


Fig. 2.

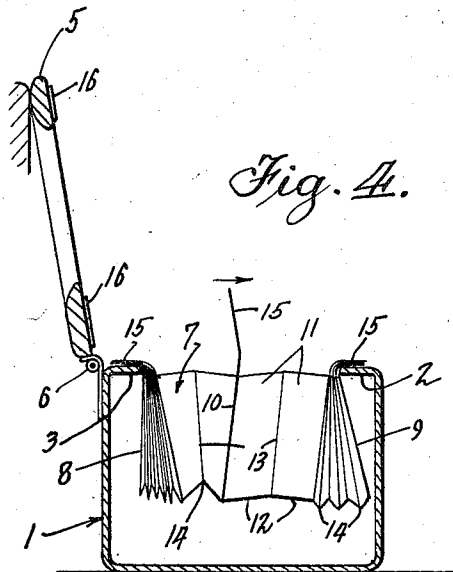


Fig. 4.

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TOILET

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9 Claims. (Cl. 4-142)

This invention relates to toilets, and particularly to those of the commode type adapted for use where there is no sewer connection, and no water supply, as in road and air vehicles.

Heretofore it has been generally customary to employ in road vehicles and airplanes, chemical toilets consisting, essentially, of some open topped receptacle containing a disinfecting and deodorizing solution. Such toilets, however, are usually obnoxious to the senses and very unpleasant to service and recondition.

An object of the present invention is to provide a toilet adapted for road and air vehicle use, that is inoffensive to the senses of sight and smell, both to those using it, and those servicing and maintaining it.

A more specific object is to provide a dry toilet, capable of repeated use, in which matter deposited therein can be retained out of sight, and sealed to prevent dissipation of odors.

Another specific object is to provide a toilet for vehicles, and the like, of such construction that matter deposited therein can be simply and easily removed and disposed of without offense to the sight and smell of the operator.

Other more specific objects and features of the invention will become apparent from the detailed description to follow of a preferred embodiment thereof, as illustrated in the drawing, in which

Fig. 1 is a vertical, sectional view of a complete device, in accordance with the invention;

Fig. 2 is a plan view thereof;

Fig. 3 is a perspective view of the replaceable element of the device; and

Fig. 4 is a vertical sectional view, illustrating the operation of the device.

As shown in Figs. 1 and 2, the device comprises a receptacle 1 having closed bottom and side walls and inwardly projecting flanges at the top constituting a front shelf 2, a rear shelf 3 and lateral shelves 4 which define a rectangular top opening of reduced dimensions. The shelves 2, 3 and 4 support a seat 5 which is connected at its rear edge by a hinge 6 to the rear edge of the receptacle 1 so that it can swing from the lower position shown in Figs. 1 and 2 into an elevated position shown in Fig. 4.

The structure so far described is of rigid and durable construction and functions to support a replaceable multiple compartment bag 7 which is constructed of some relatively inexpensive water-tight sheet material, such as waterproof paper.

The bag 7 comprises a pair of rectangular end walls 8 and 9, respectively, and a plurality of

intermediate walls 10, which are interposed between the end walls. The end and intermediate walls are interconnected by foldable side walls 11 and bottom walls 12 to define a plurality of compartments. As best shown in Figs. 3 and 4, the side walls 11 may be folded along a center line 13 and the bottom walls 12 may be folded along their center lines 14 to form plaits. The number of plaits formed in each side wall may vary to permit expansion of each compartment to a length corresponding approximately to the full length of the opening in the seat 5.

To provide for the support and manipulation of the bag 7, each of the end walls 8 and 9 and the intermediate walls 10 are provided with a flap 15 at its upper edge and the flaps are bent horizontally into stacks overlying either the rear shelf 3 or the front shelf 2 of the receptacle 1.

In the particular construction shown, when the bag 7 is initially placed in the receptacle 1, all of the flaps 15 except that attached to the end wall 9 are folded in a single stack on the shelf 3, and the flap attached to the end wall 9 is folded flat against the shelf 2, thereby opening the first compartment of the bag adjacent to the end wall 9 and positioning it below the opening in the seat 5. The flaps 15 are maintained in flat position on the shelves 3 and 2 by pressure of the seat 5 thereagainst, as shown in Fig. 1. To facilitate this retaining action of the seat, it is desirable to provide on the underside thereof pads 16 of resilient material, such as rubber, to engage against the flaps on both of the shelves 2 and 3, irrespective of the number of flaps stacked on each shelf.

Each compartment of the bag 7 is closed after use, by lifting the seat 5, (as shown in Fig. 4) lifting the topmost flap 15 from the stack on the shelf 3, carrying the flap forwardly and folding it down on the stack of flaps resting on the front shelf 2. This movement of the flap 15 collapses the compartment last used into the forward portion of the receptacle 1, and at the same time effectively closes the opening in the compartment to conceal the contents and prevent the emanation of odors therefrom.

As shown in Fig. 1, the first three compartments have already been used and closed, and the fourth compartment is in condition for use. In Fig. 4 the fourth compartment is shown in process of being closed, and the fifth compartment is in the process of being opened and positioned for use.

It may be desirable to coat the flaps 15 with an adhesive, as indicated at 18, to effectually seal

each compartment after use and prevent the displacement of the flaps of the used compartments from the stack on the shelf 2.

Obviously, whenever one of the bags 7 is used up, it may be readily lifted out of the receptacle 1 and replaced with a new bag. The used bag is sealed and is inoffensive to transport, and may be readily destroyed by incineration.

Although for the purpose of explaining the invention a particular embodiment thereof has been described in considerable detail, it is to be understood that numerous variations from the exact structure shown can be made without departing from the invention, which is to be limited only to the extent set forth in the appended claims.

I claim:

1. A device of the type described, comprising: a frame means defining an aperture and a multiple compartment bag depending through said aperture, said bag comprising: a pair of opposite end walls normally adjacent to and extending downwardly from opposite edges of said aperture, foldable sides and bottoms interconnecting said end walls and defining therewith an extensible compartment, and means for selectively securing one of said walls adjacent one edge of said aperture and the other wall adjacent the other edge of said aperture to distend the sides and bottom between said walls, whereby they define an open top receptacle.

2. A device as described in claim 1, in which said securing means includes extensions on the upper ends of said walls, and means for securing said extensions to said frame.

3. A device as described in claim 1, in which said frame defines shelves at opposite ends of said aperture and said extensions of said walls constitute flaps adapted to rest on said shelves, and a seat member movable into position overlying said frame and adapted to press said flaps against said shelves.

4. A device of the type described, comprising: frame means defining an aperture, a multiple compartment bag depending through said aperture, said bag including two opposite end walls normally adjacent and extending downwardly from opposite edges of said aperture, a plurality of partition walls positioned between said end walls, foldable sides and bottoms interconnecting the end and partition walls and defining therewith a plurality of extensible compartments, and means for selectively securing some of said walls

adjacent one edge of said aperture and the remainder of said walls adjacent the other edge of said aperture, to distend the sides and bottom between a selected pair of said walls, whereby they define an open top receptacle.

5. A device as described in claim 4, in which said securing means includes extensions on the upper ends of said walls and means for securing said extensions to said frame and to each other.

6. A device as described in claim 4, in which said securing means includes extensions on the upper ends of said walls foldable down flat against each other to close inactive compartments.

7. A device as described in claim 1, in which said frame means includes flat horizontal surfaces extending away from opposite ends of said aperture and said securing means includes flaps on the upper ends of said walls adapted to fold flat and stack on said surfaces, and a seat member mounted for movement into and out of position overlying the said frame and said surfaces, for pressing said flaps against said surfaces.

8. A device of the type described, comprising an open top receptacle of rigid construction having a horizontal rim surface at its upper end defining a rectangular aperture, a seat hinged for swinging movement down against said rim, a multiple compartment bag depending through said aperture into said receptacle, and comprising two opposite end walls normally adjacent and extending downwardly from opposite edges of said aperture and a plurality of partition walls positioned between said end walls, foldable sides and bottoms interconnecting each adjacent pair of said walls and defining therewith a plurality of expansible compartments, said walls having flap extensions on their upper ends adapted to be stacked on said rim at either end of said aperture, said seat engaging said flaps and pressing them against said rim to retain them in position when the seat is resting on said rim.

9. A disposable multiple compartment container, comprising: a pair of parallel end walls and a plurality of partition walls positioned between said end walls, foldable sides and bottoms interconnecting each adjacent pair of said walls, said sides and bottoms defining with said walls a plurality of expansible compartments and each of said walls having a foldable flap extending from its upper edge.

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