

Jan. 6, 1959

L. J. HUNTINGTON

2,866,980

TOILET

Filed Oct. 19, 1953

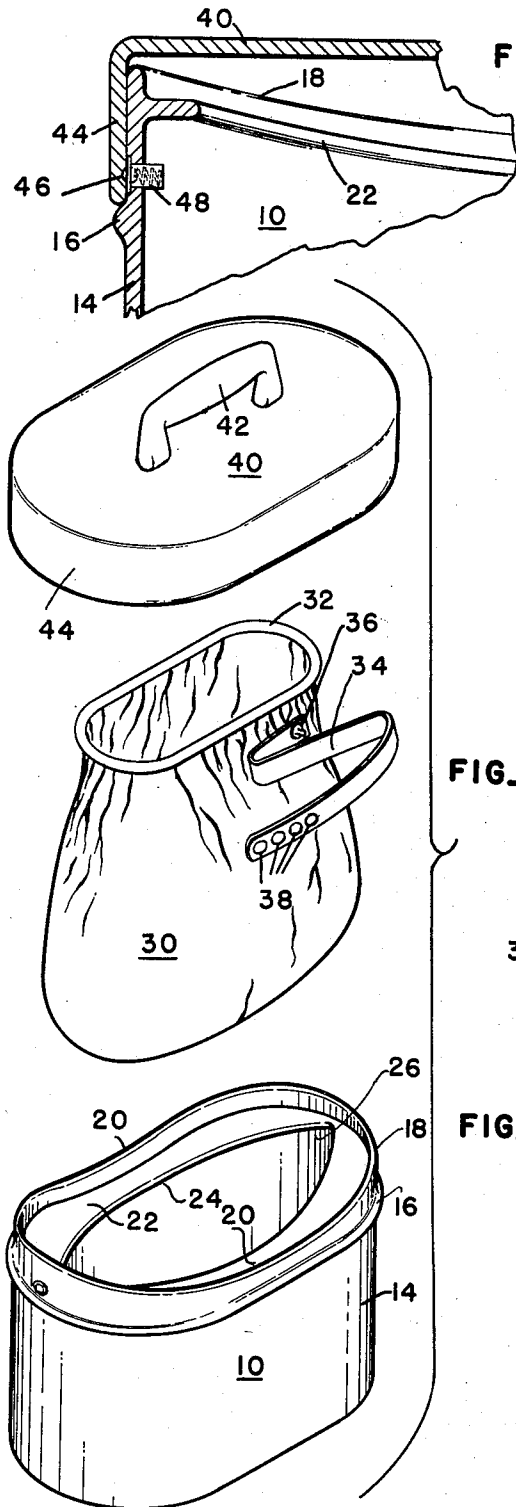


FIG. 5

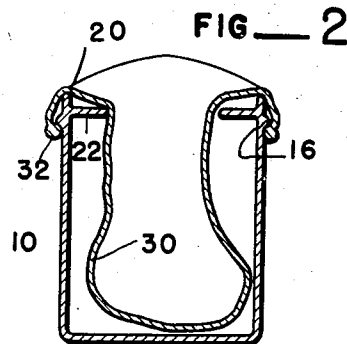


FIG. 2

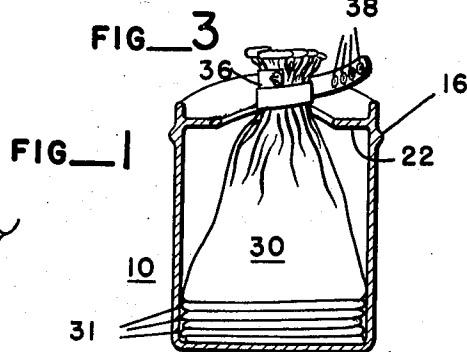


FIG. 3

FIG. 1

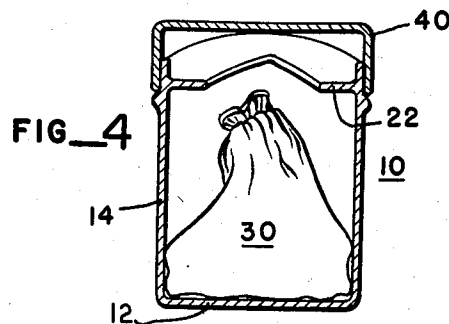


FIG. 4

LILLIAN J. HUNTINGTON
INVENTOR.

BY
Smith & Tuck

1

2,866,980

TOILET

Lillian J. Huntington, Seattle, Wash.

Application October 19, 1953, Serial No. 386,930

5 Claims. (Cl. 4—142)

This invention relates to a toilet and more particularly to a portable toilet for use by persons who are travelling and more permanent toilet installations are not available, and by persons who prefer not to use public toilet facilities.

It is among the more important objects of this invention to provide a portable toilet of a design and construction which is relatively simple to produce by modern molding and fabricating techniques at relatively low cost, and which is attractive in form to such an extent that a user would find no objectionable features that would preclude his having the device readily available either before or after use; to provide a toilet hopper that prevents and precludes the misplacement or undesirable displacement of body waste during and after use of the device, which device includes a disposable sack or pouch which may be easily placed in an open-mouth condition in connection with the toilet hopper, and which pouch, in an extremely sanitary and unobjectionable manner, may be closed and sealed for disposition away from the toilet hopper; and to provide a construction for portable toilets which permits them to be accommodated to, and useful in, distortion of confined space.

These and other objects of the invention, which will be more apparent during the course of the following specification, are attained and produced by the device shown in the drawings accompanying this specification, the same showing a preferred form of the invention in its important and pertinent details, in which:

Figure 1 is a three-part bracketed view showing the principal elements of my portable toilet in perspective in their general relationship prior to assembly;

Figure 2 is an upright cross-sectional view through the toilet hopper and its liner pouch when arranged in condition for use;

Figure 3 discloses the device at such time and under such conditions as the liner pouch is about to be fully closed and sealed;

Figure 4 is a vertical, sectional view through the container in its closed condition; and

Figure 5 is an enlarged, detailed, fragmentary cross-sectional view at one end of the container showing the retention means between the container and its closing cover.

Referring now to the various parts of the bracketed showing of Figure 1, the container 10 comprises a bottom wall 12 and an elongated round-ended enclosing wall 14 which has upper peripheral bead 16 disposed substantially parallel to the plane of the bottom wall 12. Integral with the container wall 14 and bead 16 and rising above the latter is rim wall 18 that is higher at its ends than it is intermediately thereof wherein the wall 18 dips at 20, 20. The upper edge of wall 18 is slightly rounded or smoothed.

Below the upper edge of wall 18, and within the container in a plane approximately that of the bed 16, is an interior flange 22 which constricts inwardly the mouth

2

of the container 10 and provides the opening 24 that is somewhat tapered or pointed at its ends 26.

A pouch 30 formed of fluid-impervious sheet material is employed to line the container for use. It is preferable that the sheet material from which the pouch 30 is formed also be resilient or stretchable, and of such nature that its cost is low to the end that its disposition after use is not economically unkindful. The mouth of the pouch 30 is constricted or gathered by means of a resilient lip 32 that encompasses said mouth.

The lip 32 is preferably beadlike and also stretchable or resilient so that, as shown in Figure 2, the pouch 30 may be disposed within the container 10 and its mouth turned inside out and wrapped around the container flange 22, and the wall 18 of the container above flange 22, and with the lip 32 positioned beneath the bead 16 whereby the pouch 30 is retained in position until it is manually stripped from the container.

Pouch 30 has, preferably, a strap fastener 34 attached to it adjacent the mouth, and beneath the lip 32, by suitable fastening means which could probably be the male element 36 of a snap fastener that would include a plurality of female buttons 38 at the opposite or free end of strap 34. By this means a used pouch 30, as shown in Figure 3, may be closed by having its mouth gathered or puckered, and the strap 34 wrapped around the gathered material to tightly close the pouch, and then by engagement of one of the female members 38 with the male stud 36, anchored in the closed position.

Turning back to Figure 4 briefly, the flange 22 it will be seen tends to constrict the mouth of the pouch 30 so that its bulk underlies the flange when the same is disposed within the container 10. In this way, undesirable splashing or misplacement of body wastes is precluded above the main retention portion of pouch 30. It will be quite apparent that more than a single pouch may be carried in the container as suggested in Figure 3 wherein an extra supply of pouches 31, in folded condition, underlie the used pouch or envelope.

A cover device 40 having a handle 42 and a depending peripheral flange 44 is provided to close the container 10 by being slipped thereover until the lower edge of the flange 44 is arrested from further downward movement by the bead 16. A spring pressed detent mounted in the end of wall 18, slightly above the bead 16, coacts with a slight ball or detent-receiving depression 46 on the inner surface of flange 44 and serves to retain the cover on the container except when the effect of the spring within the detent 48 is overcome and the container uncovered.

It will be obvious that when a used pouch 30 is carried in the portable toilet it will be disposed of as the opportunity is presented to the user.

If it is desired that a lining pouch 30 be maintained within the container in readiness even though the cover is on, it is to be understood that the thinness of the resilient and flexible material forming the pouch 30 does not materially interfere with the placing of the cover 40 over the container when it is in the condition as shown in Figure 2.

In this situation of course the mouth of pouch 30 in its inside-out condition would be pinched between the flange 44 and wall 18 but this would ordinarily not be harmful, and since there are no sharp surfaces or edges, the pouch would not be ruptured or pierced.

The material of which the container is formed is an important aspect of this invention and it is preferable that a yieldable plastic be used in the formation of the body at least of the container. Such material is resilient and will retain a molded form under ordinary condition of use and temperature but is distortable and may be

collapsed. In this instance there will be occasion when the collapse of the container includes a pressing together of the longer portions of the main wall 14 as when the device would be disposed between a person's legs at the crotch as can be well understood.

It is believed apparent that from the foregoing specification it will be seen that the objects of my invention are accomplished in a simple and effective manner and result in a device which is not only useful but one which can be produced at low cost and employed with great convenience.

It will of course be apparent to those skilled in the art that changes and modifications in this construction may be made and it is my intention to cover all such changes and modifications as come within the spirit and scope of the subjoined claims.

Having thus described my invention, I claim:

1. A portable toilet to be used in an automobile or the like, comprising: an upwardly-open, horizontally-elongated, round ended portable container formed of resilient material and adapted to be straddled and having a capacity to accumulate a normal discharge of body waste, said container having on its outer surface a horizontally-disposed, outwardly-protruding, annular bead extending therearound and spaced a short distance below the upper edge of the container, the upper edge of the container dipping in the medial side portions beneath the end portions, said container having an annular flange extending inwardly from its inner surface and extending therearound and spaced a short distance below the upper edge of the container in parallel relationship thereto and constricting the mouth of the container; a fluid-impervious, disposable, thin-walled sack lining said container, said sack having an expandible, normally-constricted mouth including a resilient, thickened lip of less circumference than the circumference of the lower portion of said sack, a strap type closure attached to said sack below said sack mouth and manually adjustable to tightly close said sack mouth, the mouth of said sack being turned inside out over said upper edge of said container and having said thickened lip engaged below said exterior bead, and a cover for said container having a depending annular flange about its edge of a size and shape to cover the upper outer surfaces of said container and the lower edge of said flange being horizontally disposed to rest on said bead when said sack is disengaged from said container upper edge and means between said container and said cover operable to latch the cover in place.

2. A portable toilet to be used in an automobile or the like, comprising: an upwardly-open, horizontally-elongated portable container adapted to be straddled and having a capacity to accumulate a normal discharge of body waste, said container having on its outer surface a horizontally-disposed, outwardly-protruding, annular bead extending therearound and spaced a short distance below the upper edge of the container, the upper edge of the container dipping in the medial side portions beneath the end portions, said container having an annular flange extending inwardly from its inner surface and extending therearound and spaced a short distance below the upper edge of the container and constricting the mouth of said container; a fluid-impervious, disposable, thin-walled sack lining said container, said sack having an expandible, normally-constricted mouth including a resilient, thickened lip of less circumference than the circumference of the lower portion of said sack and means for tightly closing said sack mouth, the mouth of said sack being turned inside out over said upper edge of said container and having said thickened lip engaged below said exterior bead.

3. A portable toilet to be used in an automobile or the like, comprising: an upwardly-open portable container adapted to be straddled and having a capacity to accumulate a normal discharge of body waste, said container having on its outer surface an outwardly-protruding, annular bead extending therearound and positioned below the upper edge of the container, said container having an annular flange extending inwardly from its inner surface and extending therearound and spaced a short distance below the upper edge of the container and constricting the mouth of the container; a fluid-impervious, disposable, thin-walled sack lining said container, said sack having an expandible, normally-constricted mouth including a resilient, thickened lip of less circumference than the circumference of the lower portion of said sack, the mouth of said sack being turned inside out over said upper edge of said container and having said thickened lip engaged below said exterior bead.

4. A portable toilet to be used in an automobile or the like, comprising: an upwardly-open, horizontally-elongated portable container adapted to be straddled and having a capacity to accumulate a normal discharge of body waste, said container having on its outer surface an outwardly-protruding, annular bead extending therearound and spaced a short distance below the upper edge of the container, a fluid-impervious, disposable, thin-walled sack lining said container, said sack having an expandible, normally-constricted mouth including a resilient, thickened lip of less circumference than the circumference of the lower portion of said sack, the mouth of said sack being turned inside out over said upper edge of said container and having said thickened lip engaged below said exterior bead.

5. A portable toilet to be used in an automobile or the like, comprising: an upwardly-open, horizontally-elongated portable container adapted to be straddled and having a capacity to accumulate a normal discharge of body waste, said container having on its outer surface an outwardly-protruding, annular bead extending therearound and spaced a short distance below the upper edge of the container, said container having an annular flange extending inwardly from its inner surface and extending therearound and spaced a short distance below the upper edge of the container and constricting the mouth of the container, and a fluid-impervious, disposable, thin-walled sack lining said container, the mouth of said sack being turned inside out over said upper edge of said container and means on the edge of said sack mouth engaged below said exterior bead.

References Cited in the file of this patent

UNITED STATES PATENTS

246,881	Hartman	Sept. 13, 1881
348,738	Hackenberg	Sept. 7, 1886
528,646	Salzer	Nov. 6, 1894
1,273,480	Griffith	July 23, 1918
1,836,297	Vienna	Dec. 15, 1931
1,928,170	Dwork	Sept. 26, 1933
1,951,871	Judah	Mar. 20, 1934
2,025,613	Rohan	Dec. 24, 1935
2,106,330	Sebell	Jan. 25, 1939
2,606,327	Eckart et al.	Aug. 12, 1952
2,654,892	Szabo	Oct. 13, 1953

FOREIGN PATENTS

699	Austria	Aug. 15, 1899
674,158	Germany	Apr. 5, 1939