May 11, 1965 L. P. RIBEIRO ET AL 3,182,661

SANITARY GARMENTS FOR INFANTS

Filed Oct. 5, 1962 2 Sheets-Sheet 1

FIG. 1

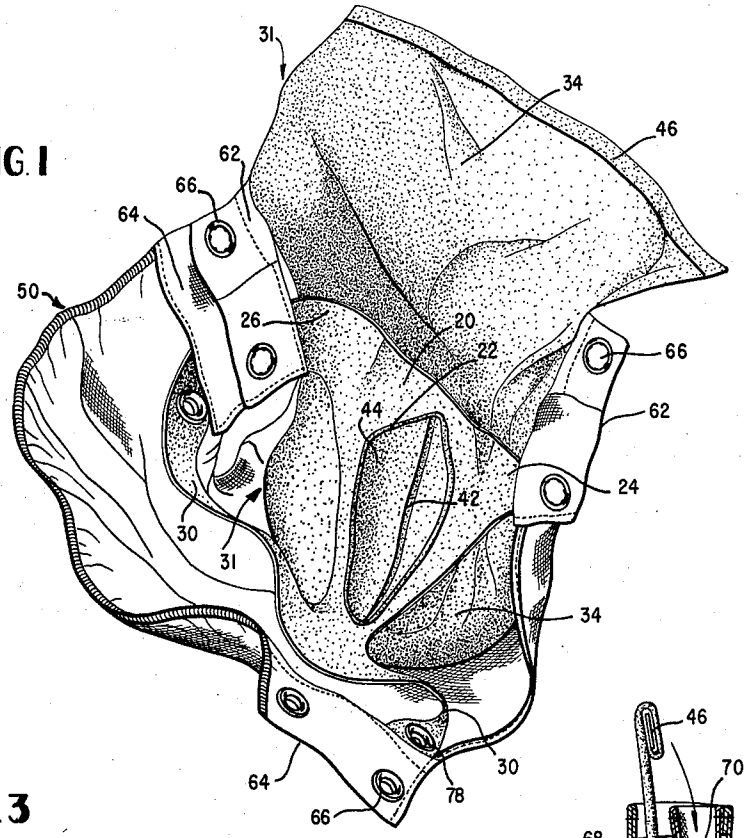

FIG. 6

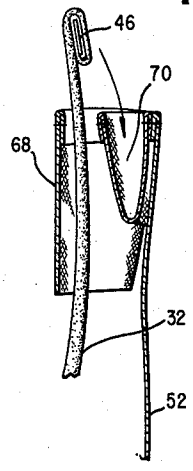

FIG. 3

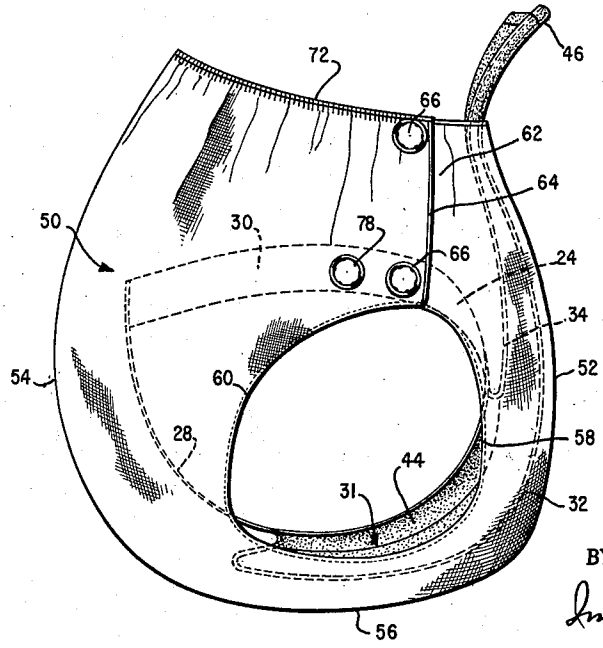

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FIG. 2

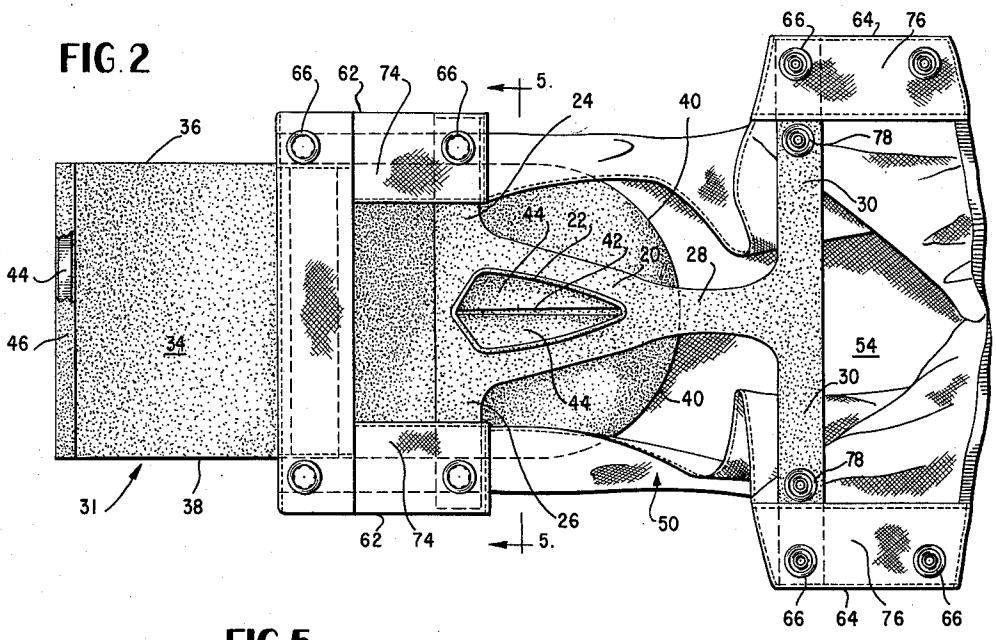
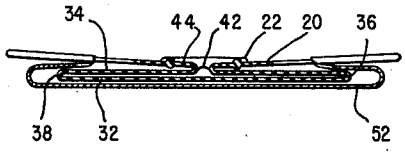


FIG. 5



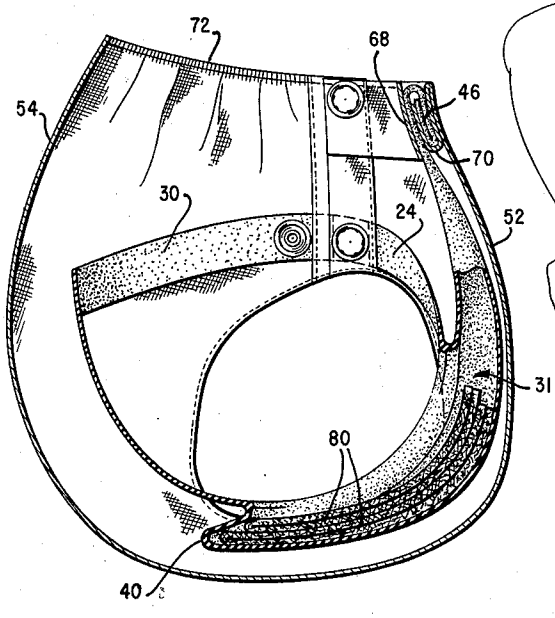


FIG. 4

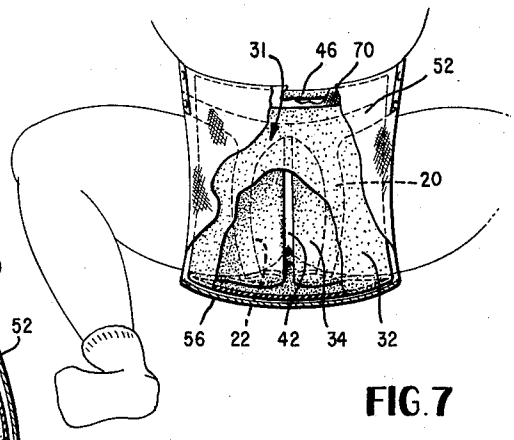


FIG. 7

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SANITARY GARMENTS FOR INFANTS

Louis P. Ribeiro, 608–A Beechwood Ave., Middlesex, N.J., and Hasel W. Ribeiro, Middlesex, N.J., by court order, to Louis P. Ribeiro, heir of said Hasel W. Ribeiro, deceased

Filed Oct. 5, 1962, Ser. No. 228,685
9 Claims. (Cl. 128—286)

This invention relates to portable toilet receptacles and more particularly to such devices as are adapted for use primarily on infants to reduce or eliminate the number of diapers otherwise required daily.

The present invention is an improvement in the portable receptacle or urinal described in applicants' Patent No. 2,484,356, granted on October 12, 1949. While the patented device has enjoyed a measure of commercial success, it embodied a number of disadvantages such as, the inability to receive stools as well as urine, the need for different receptacles to fit male and female infants, the complex design of the sealing portion to the body of the infant, and the complex harness required to support the receptacle on the body of the infant. In the present application, the invention materially improves the patented article in that one receptacle is provided having an opening enlarged and shaped so as to receive both urine and stools and suitable for either male or female infants. The complex support for the sealing ring to fit the female infant has been eliminated. The receptacle is made in one piece of soft rubber without joints and is foldable into flat condition when empty. The harness is replaced by a simple panty-like garment which is easier to place on and remove from the child. By means of all these individual improvements, the device is rendered easier and simpler to manufacture, less costly to fabricate and assemble, and easier, simpler and more quickly useable. In addition, the receptacle may be emptied more easily and faster.

In using diapers on an infant a great majority of clean diapers are necessary because of the wetting of the diapers rather than due to actual soiling. This creates a very great burden in laundering and sterilizing a diaper for each wetting. In maintaining constant attention of the child in changing the diapers and the expense of supplying and maintaining the required number of diapers.

The present invention, therefore, has for its primary object the provision of a portable toilet receptacle that may be fitted to the infant to receive and collect both liquid and stool eliminations and thereby obviate the necessity for a great many diapers being employed on the infant.

A further important object of the invention is to provide an improved portable toilet receptacle of the above described characteristics that is suitable for wear by both male and female infants.

Another object of the invention is to provide an improved portable toilet receptacle, of the above described characteristics, having a one piece, soft rubber bag foldable flat when empty and having an opening at the top, which opening can be closed and sealed by folding the rim of the opening.

Still another important object of the invention is to provide an improved portable toilet receptacle, of the above described characteristics, in which the liquid proof bag is held in a panty-like garment so that the receptacle is easy to put on and take off of an infant.

Yet another object of the invention is to provide an improved portable toilet receptacle, of the above described characteristics, wherein the liquid tight bag is integrally joined to the supporting garment which permits laundering of the two parts together as one piece.

Still another object of the invention is to provide an

improved portable toilet receptacle, of the above described characteristics, which is of simple construction, easy and economical to fabricate, and readily and easily useable for its intended purposes.

The novel features that are considered characteristic of the invention are set forth with particularity in the appended claims. The invention itself, however, both as to its organization and its method of operation, together with additional objects and advantages thereof, will best be understood from the following description of a specific embodiment when read in connection with the accompanying drawings, wherein like reference characters indicate like parts throughout the several figures and in which:

FIG. 1 is a perspective view of a garment constructed according to the invention looking from the rear toward the front with the garment disposed as if partially placed about an infant not shown and partly open to reveal internal structure;

FIG. 2 is a fragmentary plan view of the garment shown in FIG. 1 but spread, folded and flattened in open condition as if on a plane surface ready to receive an infant to be clothed therewith;

FIG. 3 is a side elevation of the garment as if worn by an infant but omitting the child for sake of clarity;

FIG. 4 is a vertical, central section of the garment as disposed in FIG. 3 but showing the open end of the bag tucked in its sealing pocket after insertion of absorbent material within the bag;

FIG. 5 is a section taken on line 5—5 of FIG. 2 and looking in the direction of the arrows;

FIG. 6 is a fragmentary section of the upper part of the front panel of the garment showing the pocket for retaining and sealing the upper end of the bag; and

FIG. 7 is a front elevation of the garment as viewed when worn by an infant without absorbent material and partially broken away to reveal the internal construction.

Referring now to the drawings, the present invention comprises a loin member **20** which, as best shown in FIG. 2, is formed as a flat, triangular panel of a suitable liquid tight material such as soft rubber. In the center of this loin piece is a shield shaped opening bounded by a bead **22**. The opening is elongated sufficiently so that the edging bead surrounds and encloses both the urinating and fecal organs of an infant, or other wearer. The opening is also shaped with the widest portion at the top, the left as seen in FIG. 2, so that when placed on a male both the penis and dependency may be inserted into the opening. The member **20** when worn is adapted to shape itself to the front, bottom and back of the crotch and rest against the loin parts of the wearer surrounding the organs as explained above, the bead **22** pressing against and forming a liquid tight seal with the wearer's body about said organs.

At each apex of the triangular loin piece **20** there is an integral extension strip **24**, **26** and **28** respectively, the last named extension having perpendicular strips **30** extending therefrom. The strips **24** and **26** and **30** are adapted to be secured to and within a supporting garment as will be more clearly set forth hereinafter.

The receptacle proper is a bag generally referenced **31** and preferably also formed of soft rubber, or other suitable liquid tight material. The bag comprises front and rear walls **32** and **34** desirably formed in one piece and closed at the bottom and open at the top, the front and rear walls being integrally joined in side edges **36** and **38** and a rounded bottom edge **40** to form folds which enable the bag to lie flat when empty as best seen in FIGS. 2 and 5. In the rear wall **34** of the bag just above the bottom is an elongated slit **42** whose edges are formed by integral flaps **44** which fold outwardly and rearwardly, the outer edges of the flaps being integrally joined to the

bead 22. Thus the flaps 44 of the bag, when open and/or spread, define a collar which communicates the opening defined by bead 22 in the loin piece with the slit 42 in the rear wall of the receptacle bag. The bag flaps 44 may be cemented, vulcanized or otherwise integrally joined to the loin piece at or near the bead 22.

The open upper end of the bag is reenforced and held closed by a stiffener element 44 embedded in the rubber rim 46. This element may be of plastic or other suitable stiffening material and serves to hold the bag opening closed but not sealed liquid tight. The exercise of slight pressure on the sides of the rim will open the bag into a tubular shape with a substantially circular top opening whereby absorbent material may be inserted in or withdrawn from the bag. While the bag is being worn, the rim 46 is folded several times to completely seal the bag fluid tight at its upper end.

The described bag is preferably, although not necessarily, permanently secured within a panty-like garment referenced generally at 50, and best seen in FIG. 3 as comprising a front panel 52 and a real panel 54 formed from one piece and turned or loosely folded at the bottom 56. The panty 50 may obviously be formed of any suitable fabric such as cotton, nylon, silk or the like. The sides of the front and rear panels are cut out at 58 and 60 to provide generally circular openings fitting about the thighs of the infant when the garment is closed about his waist. In worn position, the garment 50 at the upper part of the front panel 52 has rearwardly projecting flaps 62 at each side, and the rear panel 54 has corresponding forwardly projecting flaps 64. These flaps are sufficiently long to overlap at the waist of the child and are provided with readily engageable securement means such as fastener snaps 66.

On the inside at the top of the front flap 52 there is a transverse band 68 through which the upper open end 46 of the bag 31 may be guided, see FIG. 6, and when the garment is worn the upper end of the rubber bag is retained against the stomach of the infant by the garment parts 52 and 68, see FIG. 4. Also within the space between the strap 68 and the front 52 of the garment is shown a laterally extending strap having a pocket 70 with V-shape cross section into which the folded rim 46 of the bag may be inserted downwardly as indicated by the arrow in FIG. 6. When thus inserted, the bag is not visible but is completely enclosed and covered within the panty 50. The upper edge of the rear flap 54 of the panty 50 is preferably provided with a resilient internal band 72 which contracts the panty snugly about the waist of the child.

The bag 31 is preferably permanently secured within the panty 50 by sewing, cementing or otherwise fastening the loin piece extensions 24, 26 and 30 within hems 74, 76 near the bottoms of the front and rear flaps 62, 64 respectively of the panty. The loin piece may be advantageously permanently affixed by piercing the extensions thereof by the separate parts of the snap fasteners 66. An extra pair of snap fasteners 78 hold the loin extensions 30 and also serve as alternate fastening means for the flaps 62, 64 to obtain a closer fit about a thinner child.

As previously stated, an absorbent material is preferably inserted in the bag 31, or receptacle, to take up the liquid and stool as it is deposited in the bag. While this absorbent material may be in any suitable form such as rolls, it preferably comprises a plurality of folded sheets or layers 80 of paper, cottom fabric or any other porous material. Any desired number of sheets may be employed. It will be readily understood that the absorbent is easily insertable through the top opening at the rim 46 of the bag before the garment is applied to the infant and may easily be removed by withdrawing the folded rim 46 from the pocket 70 upon opening the snap fasteners at one or both sides of the panty, opening the bag and lifting out the absorbent with the deposited matter. The absorbent material is desirably soft enough and thin enough to be readily deformed to accommodate the body structure and movements of the child in bending, crawling or otherwise working its legs.

To use the device the panty is desirably opened and laid upon a flat surface as shown in FIG. 2. Preferably the absorbent material is then inserted into the bag through the open rim 46. An infant may then be laid, face up, upon the device with its anus directly above the bead 22. The front flap 52 of the panty is then lifted over the infant and the snap fasteners 66 on the front and rear flaps engaged to tighten the upper part of the panty about the waist of the infant. This stretches the triangular loin piece 20 into flat engagement with the body of the infant at the crotch and seals the loin piece tightly against the body particularly in the area of the bead 22 surrounding both organs of the child. The rim of the bag 46 may then be folded several times and inserted downwardly into the pocket 70 on the front flap 52 of the panty.

When it is necessary to remove the absorbent material after being wet or otherwise contaminated, the entire panty may be removed permitting easy access to the interior of the bag or the snap fasteners 66 may be undone at one or both sides to loosen the panty about the waist of the child, permitting the bag rim 46 to be removed from the pocket 70, opened and the absorbent removed and replaced.

When it is necessary to launder the garment, the panty and the rubber bag together may be washed in hot water, or if the bag is made separable from the panty, each may be laundered separately.

If desired the panty 50 like an ordinary panty may be slipped on and off the child while he is standing rather than lying prone as the internal, flat bag 31 does not encumber the panty in such movements.

It is apparent from the above description that the shape of the loin piece and its soft, resilient material are such as to provide a good tight seal in the crotch of the infant completely surrounding both his organs so that the device is useful for male and female alike and to meet all possible needs of the child. The incorporation of the loin piece and an integrally connected bag with the bag being soft and resilient and foldable flat makes for an unencumbered panty garment in which the bag is entirely concealed and occupies little space. Such incorporation also renders the toilet receptacle easily applied and removed from the child.

Although a certain specific embodiment of the invention has been shown and described, it is obvious that many modifications thereof are possible. The invention, therefore, is not to be restricted except insofar as is necessitated by the prior art and by the spirit of the appended claim.

What is claimed is:

1. The combination of a garment with a portable toilet receptacle comprising a loin piece of soft, liquid-proof material having an opening defined by a substantially oval, resilient, peripheral ring having a size such as to surround both the urinating and fecal organs of a wearer and for forming a liquid-tight seal with the wearer's body about said organs, a liquid-tight bag closeably opened at one end and having front and rear walls, an opening in said bag rear wall formed as a slit whose edges are folded rearwardly and connected to said ring of the loin piece so that said bag opening communicates with the interior of said ring, said means of supporting said loin piece and connected bag in the crotch of said garment, said garment comprising a one piece fabric sheet cut out at its sides to admit the thighs of a wearer, and being foldable into front and real panels which overlie each other, said front and rear panels having side extensions and fasteners therein for securement about the waist of a wearer, and said means supporting the loin piece

and bag being fastened to said front and rear panel extensions at a level just above the crotch of a wearer.

2. The combination according to claim 1 wherein said loin pieces is of triangular shape and provided with extensions at its apices, and loin piece extensions forming part of said means for supporting the loin piece and bag in said garment.

3. The combination as set forth in claim 1 wherein said bag is formed of a soft, rubber material whose front and rear walls are integrally joined in one piece and having folds at their sides and bottom, the open top of the bag being reenforced by a stiffener secured to the upper rim, said rim and stiffener being foldable to close the top of the bag and said bag when empty being foldable along the side and bottom edges thereof to lie flat against a body.

4. The combination according to claim 1 wherein the front panel of said garment is provided with a pocket, said bag lying within said front panel and extending below the crotch of a wearer with its open end adjacent said pocket whereby the open end of the bag when folded is insertable within the pocket to retain the bag closed and sealed.

5. A garment including a waste receptacle comprising a cloth member shaped to fit over the crotch of a wearer and embrace his waist in the manner of a panty, a soft bag of liquid-proof material secured within said cloth member to cover the crotch and receive waste material, said bag having a closeable opening at one end and a slit in one side, and a loin piece of resilient material having an opening defined by a resilient peripheral ring adapted to overlie at least one waste organ of a wearer and to form a liquid-tight seal with the wearer's body, said ring being connected to the edges of said slit to permit entry of waste material into the bag.

6. A garment according to claim 5 wherein said bag and connected loin piece are permanently fastened to said cloth member.

7. A garment according to claim 5 wherein said cloth

member is removably fittable to cover the hips and crotch of a wearer and shaped to snugly fit his body.

8. A garment according to claim 5 wherein said peripheral ring of the loin piece is sufficiently large to surround both the urinating and fecal organs of a wearer.

9. An article for use as a portable toilet comprising a bag formed in one piece of soft, resilient, liquid-tight material, said bag having an elongated shape and formed of front and rear panels integrally joined at their sides and bottom, the upper end of the bag being open, a slit in said real panel defined by edges which extend rearwardly and are folded outwardly to form a tubular collar, a flat, triangular loin piece of soft, liquid-proof material having an opening defined by a substantially oval, resilient, peripheral ring having a size such as to surround at least one of the urinating and fecal organs of a wearer and for forming a liquid-tight seal with the wearer's body about said organ, said collar being integrally secured to said ring about the opening in the loin piece, said bag when empty being flat with the rear and front panels lying adjacent one another and the rear piece lying adjacent said loin piece, and an H-shaped extension in the plane of said loin piece integrally secured to the apices thereof for fastening the bag and loin piece over the body of a wearer.

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