



(22) Date de dépôt/Filing Date: 2004/05/18

(41) Mise à la disp. pub./Open to Public Insp.: 2005/11/18

(51) Cl.Int.<sup>7</sup>/Int.Cl.<sup>7</sup> A61F 5/445, A61F 5/44

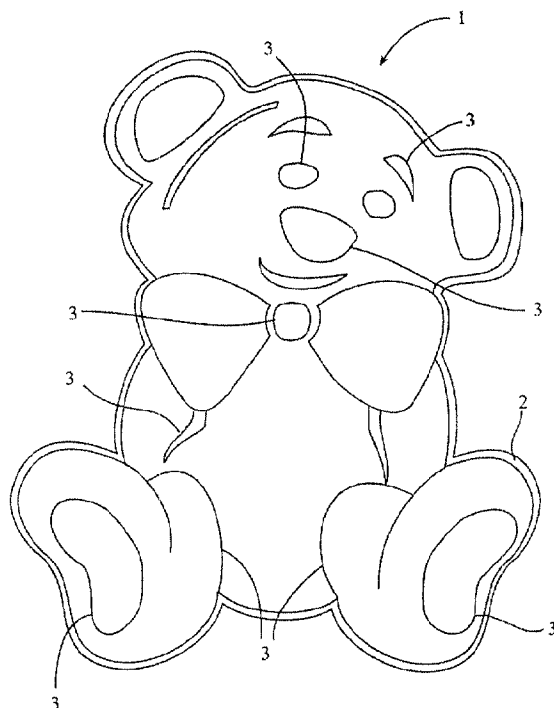
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(54) Title: IMPROVED OSTOMY APPLIANCE



(57) Abrégé/Abstract:

An ostomy pouch which is constructed in a manner to disguise its actual function by use of colors, surface textures, iconic perimeter shapes and/or iconic shapes applied to the surface of the ostomy pouch. The ostomy pouch is preferably made of a blue, red, black, yellow, orange, purple or bright pink plastic material as supposed to a flesh tone of thick current ostomy pouches are made. The surface of the plastic of which the ostomy pouch is constructed is preferably textured to give it the visual appearance of cloth such as linen, cotton, burlap, or canvas. The pouch is constructed to look like a small purse, a heart, a butterfly, a sea shell, a teddy bear head, a teddy bear, a dog, a cat, or another recognizable icon to allow the pouch to become a decorative feature rather than a medical appliance to be hidden.

## **BACKGROUND OF THE INVENTION**

The present invention relates to ostomy appliances and in particular the pouch used for the collection of the waste material.

A person whose normal bowel function or bladder is impaired due to birth defect, injury, disease, or other disorder may undergo surgery known as an "ostomy." Ostomy surgery often involves removal or bypass of impaired or diseased tissue and the creation of a hole in the abdominal wall of the patient, and pulling a section of the bladder conduit or bowel to the skin surface and subsequently attaching it to the skin surface. Bowel attachment surgery is termed an "ileostomy" when the small intestine is involved, termed a colostomy when the large intestine is involved, and termed a urostomy when the bladder is involved.

The hole in the skin to which the end of the bladder conduit or intestine is attached is called the "stoma," and the surrounding skin area is called the "peristomal area". The ileostomy and colostomy stoma provides an open conduit through which a constant or intermittent efflux of fecal material can occur and the urostomy stoma allows the efflux of urine. The urine or feces is collected in a bag-like ostomy appliance which is worn by the user and replaced by the user as required every few days.

The attachment of the ostomy appliance to the user can be achieved with either a one piece or a two piece system. A two piece system typically consists of a flange which is adhered to the body of the person with the ostomy, and a bag like device to provide collection of the feces or urine. The flange and the bag each provide a mechanical member which allows the bag to be removably fastened to the flange and for a plurality of bags to be used with a single flange over a period of 2-7 days. The one piece system integrates both the means of adhering to the body and the bag collection device. A

modern adhesive system for ostomy appliances typically consists of an inner hydrocolloid layer over which a protective paper or cloth tape is adhered to provide a barrier through which feces and urine will not pass but which does allow oxygen and water vapor to pass.

The primary problem with current ostomy appliances addressed by this invention is that they are typically made of a smooth "pink skin color" plastic meant to simulate Caucasian flesh tone, typically polyvinyl chloride (PVC) film, which may optionally be covered by a woven cotton layer. The visual appearance of the devices is quite "clinical" and the current designs unsuccessfully attempt to "hide" the ostomy pouch by "blending into the skin,

This invention relates to the change of the visual appearance of the ostomy pouch in terms of color, surface texture, and overall shape to visually make it appear like a fashion accessory or other common object thereby reducing the stress of the user who might otherwise be embarrassed by the appearance of the medical appliance. The invention is applicable to both one piece and two piece appliances.

## **BRIEF DESCRIPTION OF THE DRAWINGS**

Figure 1 is a front view of an embodiment of the instant invention wherein the ostomy pouch 1 forms a recognizable shape, in this case, the shape of a teddy bear

Figure 2 is an exploded view of the assembly of the pouch 1 constructed in the shape of a teddy bear.

Figure 3 is a perspective view of the ostomy pouch 1 in the shape of a teddy bear of the instant invention.

Figure 4 is a rear view of a one piece version of the ostomy pouch 1 of the instant invention showing the hole for the stoma to penetrate 6, the hydrocolic adhesive layer 7 and the outer paper or urethane tape adhesive layer 8. The filter 9 is located in the ear of the teddy bear 10, and the heat seal 11 to protect the filter from direct contact with fecal matter.

Figure 5 is a front view of an embodiment of the instant invention wherein the ostomy pouch 12 forms a recognizable shape, in this case, the shape of a heart.

Figure 6 is is a front view of an embodiment of the instant invention wherein the ostomy pouch 15 forms a recognizable shape, in this case, the shape of a sea shell.

Figure 7 is is a front view of an embodiment of the instant invention wherein the ostomy pouch 20 forms a recognizable shape, in this case, the shape of a flower.

Figure 8 is is a front view of an embodiment of the instant invention wherein the ostomy pouch 23 forms a recognizable shape, in this case, the head of a dog.

While the individual drawings of this patent show the invention as it relates to a colostomy or ileostomy devices, all features of the invention including but not limited to issues of texture, color, shape and surface decoration apply equally to a urostomy and ileostomy appliances. While the drawings show the invention as it relates to filtered pouch, the invention is equally applicable to filter-less pouches or vented pouches.

## **DESCRIPTION OF THE PREFERRED EMBODIMENTS**

The appliances described as follows show embodiments for disposable colostomy pouches but are equally applicable to urostomy and ileostomy pouches.

Figure 1 is a front view of an embodiment of the instant invention wherein the ostomy pouch 1 forms a recognizable shape, in this case, the shape of a teddy bear which is heat sealed along the perimeter 2. The shape and color of the ostomy pouch of the instant invention camouflages the true nature of the ostomy pouch 1 due to its recognizable iconic shape. The color of the plastic of which this ostomy pouch 1 is constructed is preferably black, brown, red, orange, yellow, green, blue, violet, gray, or white. The surface of the plastic of which the pouch is constructed may be smooth but is preferably patterned with dimples which are 0.001" to 0.100" in diameter, more preferably 0.003 to 0.050" in diameter and most preferably 0.005 to 0.015" in diameter with a depth 1-75% of the diameter of the dimple, more preferably having a depth 5-35% of the diameter of the dimple and most preferably 15%-20% the diameter of the dimple. This simpling or texturing pattern serves to alter the appearance of the plastic by forming a mechanical pattern similar to the appearance and texture of fabrics.

Figure 2 is an exploded view of the assembly of the pouch 1 constructed in the shape of a teddy bear. The lines 3 which form the patterns of the features of the bear are either silk screened or heat sealed into the front layer 4 of the ostomy pouch 1. A heat seal 2 around the perimeter of the ostomy pouch 1 serves to assemble the front layer of the ostomy pouch 4, to the rear layer of the ostomy pouch 5 to which the adhesive for a one piece system or the ring for a two piece system is affixed. The pouch 1 is constructed of two or more layers of thin film heat seal able plastic, preferably PVC, and preferably 0.001" to 0.020" thick, more preferably 0.002 to 0.010" thick and most preferably 0.004 to 0.007" thick.

Figure 3 is a perspective view of the ostomy pouch 1 in the shape of a teddy bear of the instant invention.

Figure 4 is a rear view of a one piece version of the ostomy pouch 1 of the instant invention showing the hole for the stoma to penetrate 6, the hydrocolic adhesive layer 7 and the outer paper or urethane tape adhesive layer 8. The filter 9 is located in the ear of the teddy bear 10, and the heat seal 11 to protect the filter from direct contact with fecal matter.

Figure 5 is a front view of an embodiment of the instant invention wherein the ostomy pouch 12 forms a recognizable shape, in this case, the shape of a heart which is heat sealed along the perimeter 13. The shape and color of the ostomy pouch of the instant invention camouflages the true nature of the ostomy pouch 12 due to its recognizable iconic shape. The color of the plastic of which this ostomy pouch 1 is constructed is preferably black, brown, red, orange, yellow, green, blue, violet, gray, or white. The surface of this embodiment of the ostomy appliance is covered with a layer of short fibers 14 which are adhered to the plastic of which the ostomy appliance is constructed by means of an adhesive which is not readily broken down by contact with water or body fluids. The short fibers are preferably 0.001 to 0.125" long, more preferably 0.003 to 0.040" long and most preferably 0.005" to 0.015" long having a diameter between 1% to 1000% of their length, more preferably 5% to 300% of their length and most preferably a diameter between 35% to 100% of their length. The layer of short fibers is typically applied by means of electrostatic flocking to create the type of fiber density and pattern desirous in this application. Optionally, the adhesive layer may be applied in a pattern such that the short fibers form a decorative pattern on the surface of the pouch. Optionally, a mixture of different colors of flock may be applied together to form an appearance similar to cloth and other textiles. Optionally, different colors of short fibers may be applied to different regions of the plastic of which the pouch is constructed to form decorative or iconic patterns.

Figure 6 is is a front view of an embodiment of the instant invention wherein the ostomy pouch 15 forms a recognizable shape, in this case, the shape of a sea shell which is heat sealed along the perimeter 16. The shape and color of the ostomy pouch of the instant invention camouflages the true nature of the ostomy pouch 12 due to its recognizable iconic shape. The color of the plastic of which this ostomy pouch 15 is constructed is preferably black, brown, red, orange, yellow, green, blue, violet, gray, or white. Portions 17 of the surface of this embodiment are silk screened to create the lines of the shell and the base of the shell 18 is covered with a layer of short fibers 19 which are adhered to the plastic of which the ostomy appliance is constructed by means of an adhesive which is not readily broken down by contact with water or body fluids. The short fibers are preferably 0.001 to 0.125" long, more preferably 0.003 to 0.040" long and most preferably 0.005" to 0.015" long having a diameter between 1% to 1000% of their length, more preferably 5% to 300% of their length and most preferably a diameter between 35% to 100% of their length. The layer of short

fibers is typically applied by means of electrostatic flocking to create the type of fiber density and pattern desirous in this application.

Figure 7 is a front view of an embodiment of the instant invention wherein the ostomy pouch 20 forms a recognizable shape, in this case, the shape of a flower which is heat sealed along the perimeter 21. The shape and color of the ostomy pouch of the instant invention camouflages the true nature of the ostomy pouch 12 due to its recognizable iconic shape. The color of the plastic of which this ostomy pouch 20 is constructed is preferably black, brown, red, orange, yellow, green, blue, violet, gray, or white. A small bee character 22 is applied to the surface of the pouch by means of silk screening. Optionally, this decoration may be applied by heat lamination or by flocking short fibers onto the pouch surface in the pattern of the bee character 22.

Figure 8 is is a front view of an embodiment of the instant invention wherein the ostomy pouch 23 forms a recognizable shape, in this case, the head of a dog which is heat sealed along the perimeter 24.

This invention also relates to any alternative combinations of features which are the subject of this invention.

**Claims:**

1. The ostomy appliance substantially as disclosed herein.

**ABSTRACT**

An ostomy pouch which is constructed in a manner to disguise its actual function by use of colors, surface textures, iconic perimeter shapes and/or iconic shapes applied to the surface of the ostomy pouch. The ostomy pouch is preferably made of a blue, red, black, yellow, orange, purple or bright pink plastic material as supposed to a flesh tone of thick current ostomy pouches are made. The surface of the plastic of which the ostomy pouch is constructed is preferably textured to give it the visual appearance of cloth such as linen, cotton, burlap, or canvas. The pouch is constructed to look like a small purse, a heart, a butterfly, a sea shell, a teddy bear head, a teddy bear, a dog, a cat, or another recognizable icon to allow the pouch to become a decorative feature rather than a medical appliance to be hidden.

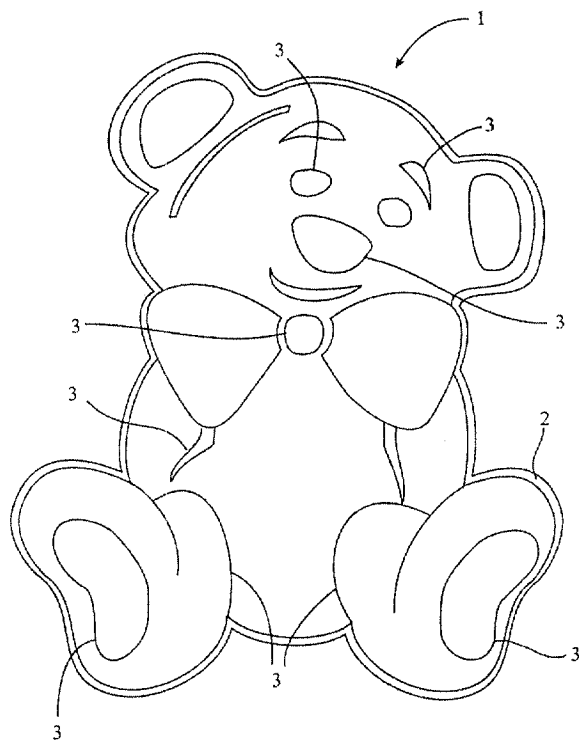


FIG. 1