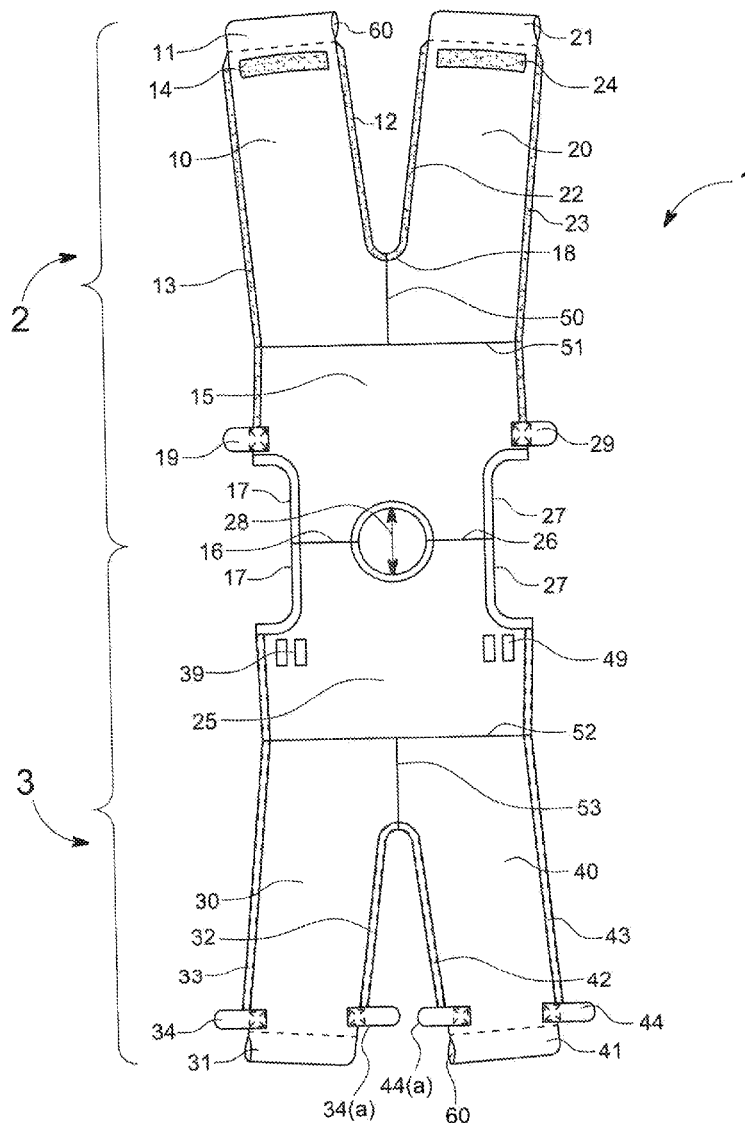


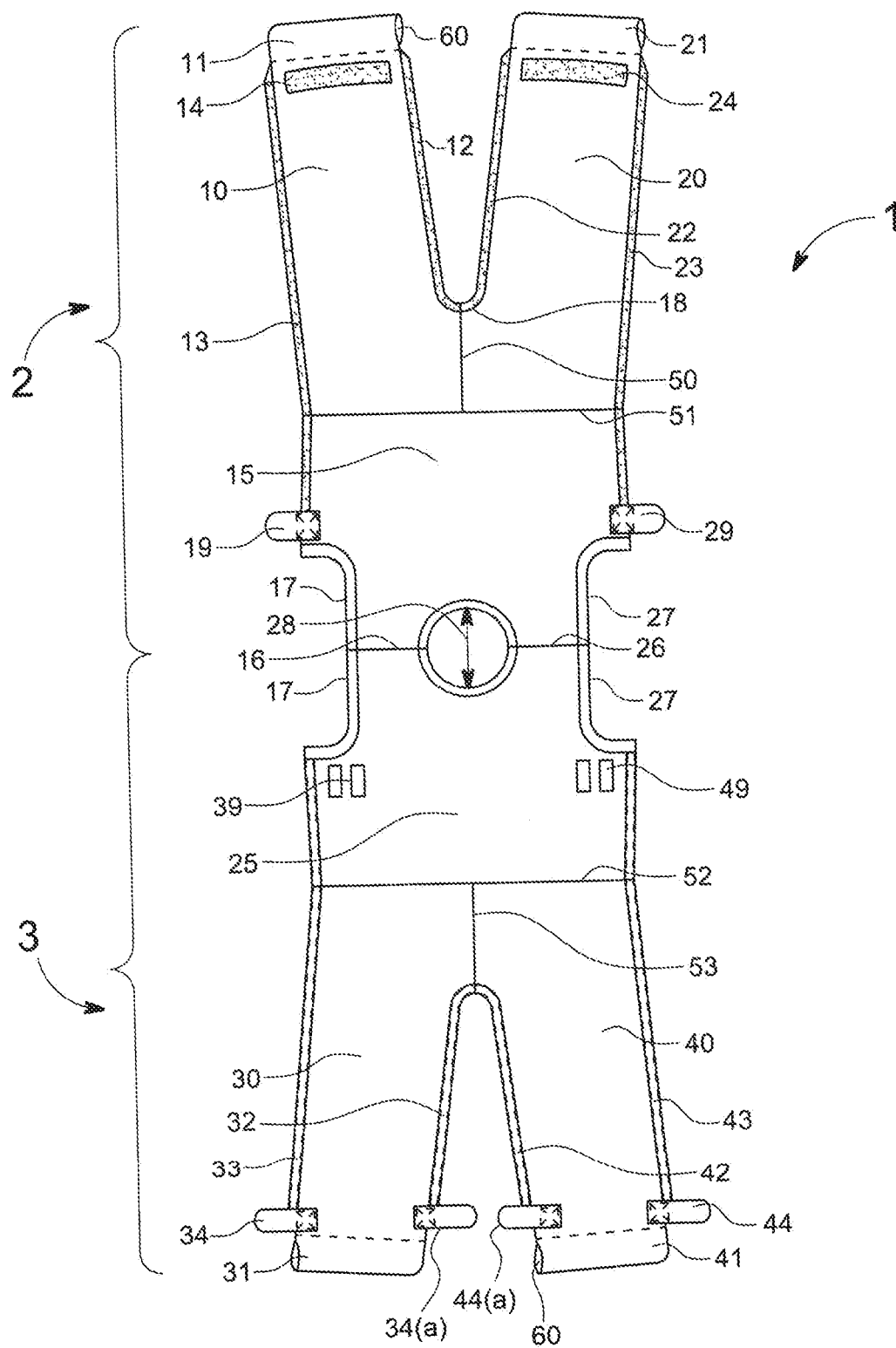


US 20240251891A1

(19) **United States**(12) **Patent Application Publication**
Haynie(10) **Pub. No.: US 2024/0251891 A1**(43) **Pub. Date: Aug. 1, 2024**(54) **UNISEX ADAPTIVE GARMENT FOR
DISABLED, INCONTINENT, OR INFIRM
PATIENTS**(52) **U.S. Cl.**
CPC *A41D 13/1263* (2013.01); *A41D 2300/30*
(2013.01)(71) Applicant: **Laura Haynie**, Peachtree City, GA
(US)(72) Inventor: **Laura Haynie**, Peachtree City, GA
(US)(21) Appl. No.: **18/102,702**(22) Filed: **Jan. 28, 2023****Publication Classification**(51) **Int. Cl.**
A41D 13/12 (2006.01)(57) **ABSTRACT**

Disclosed is an adaptive garment which is fabricated to be worn by patients who may be disabled, incontinent, and/or infirm. The inventive concept comprises a one-piece quantity of fabric which incorporates two similar, symmetric patterns, each pattern conforming generally to the front and rear contours of a human body. The one-piece garment is bi-folded at the area of the shoulders. The first folded segment consists of the profile of a front-oriented human body pattern, while the compatible second folded segment consists of the profile of the rear-oriented human body pattern. Both body patterns are integrally merged at common left and right shoulder junctions. Further, both body patterns may be detachably connected at their respective left and right leg inseams, out-seams, and at front and rear bodice segments, by a variety of mechanical and/or fabric fastening mechanisms.





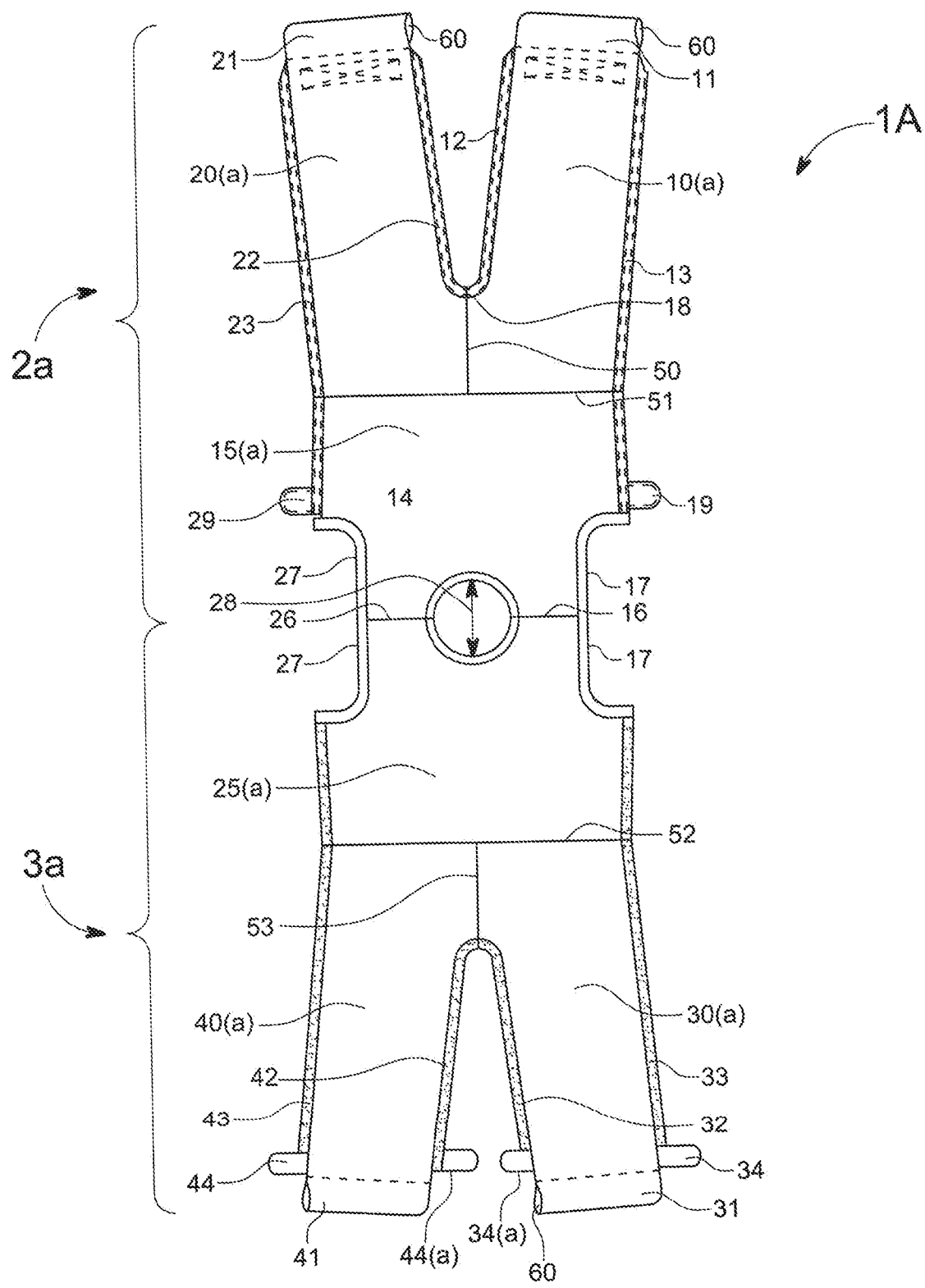


FIG. 1A

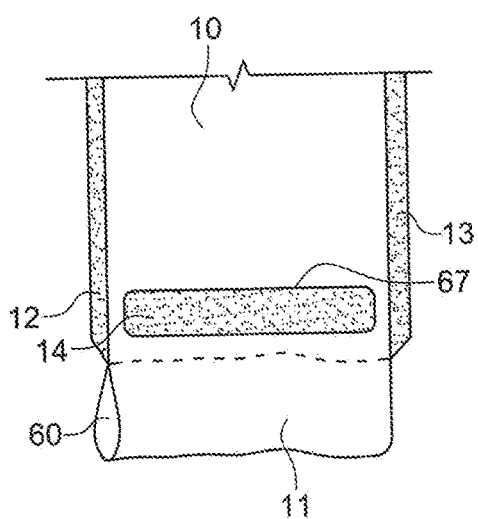


FIG. 2

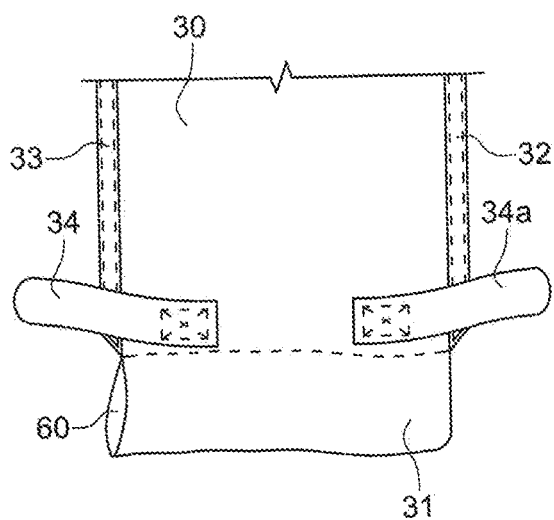


FIG. 3

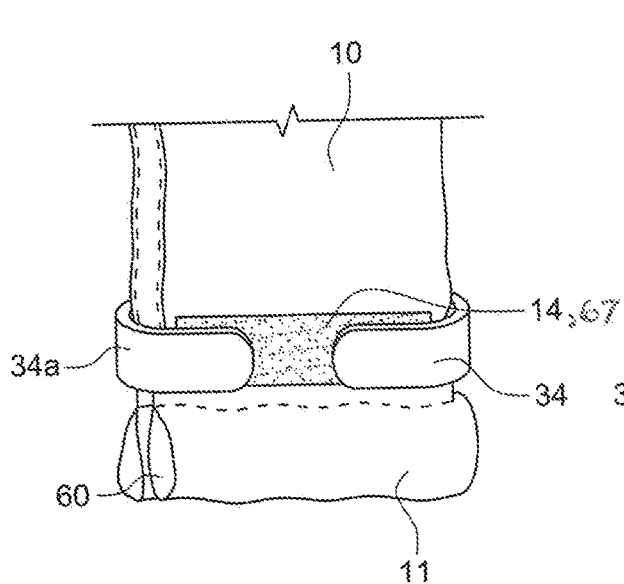


FIG. 4

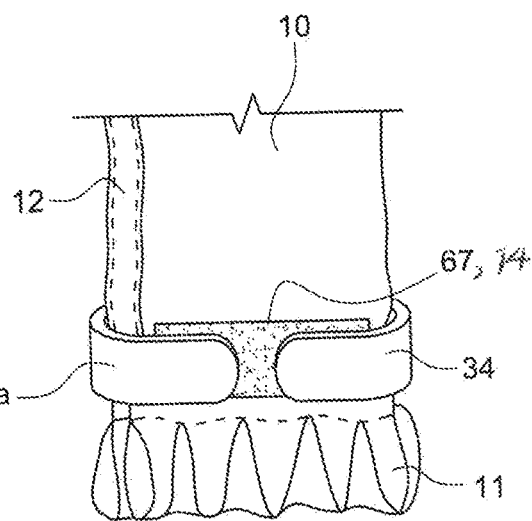
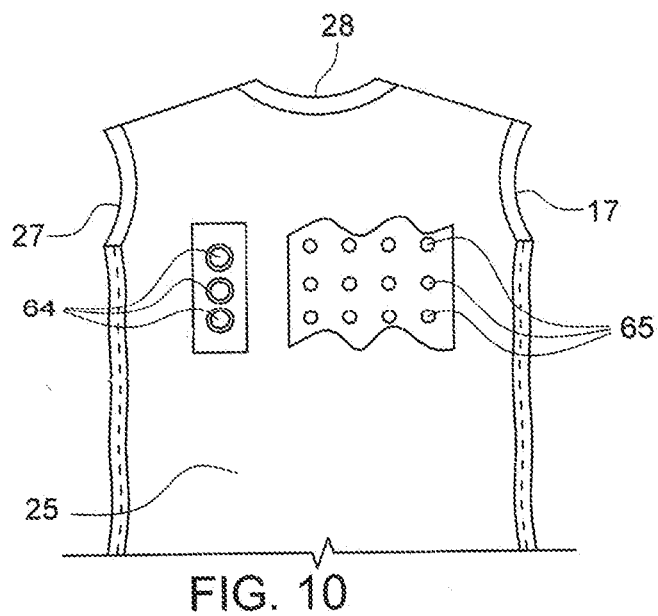
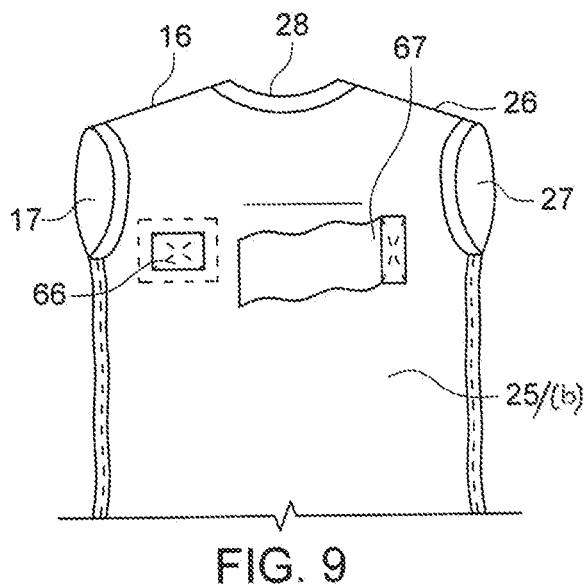
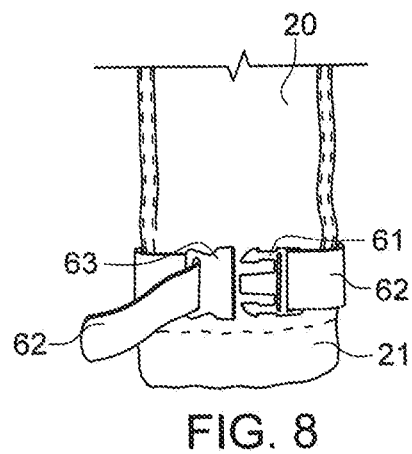
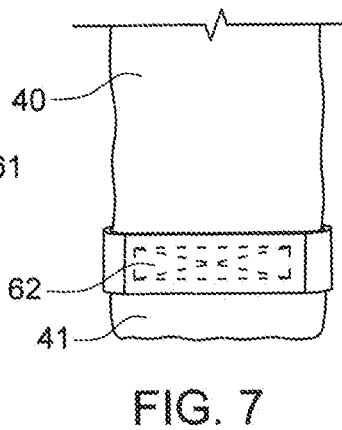
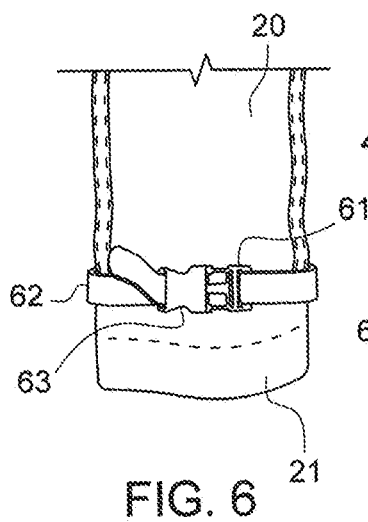


FIG. 5



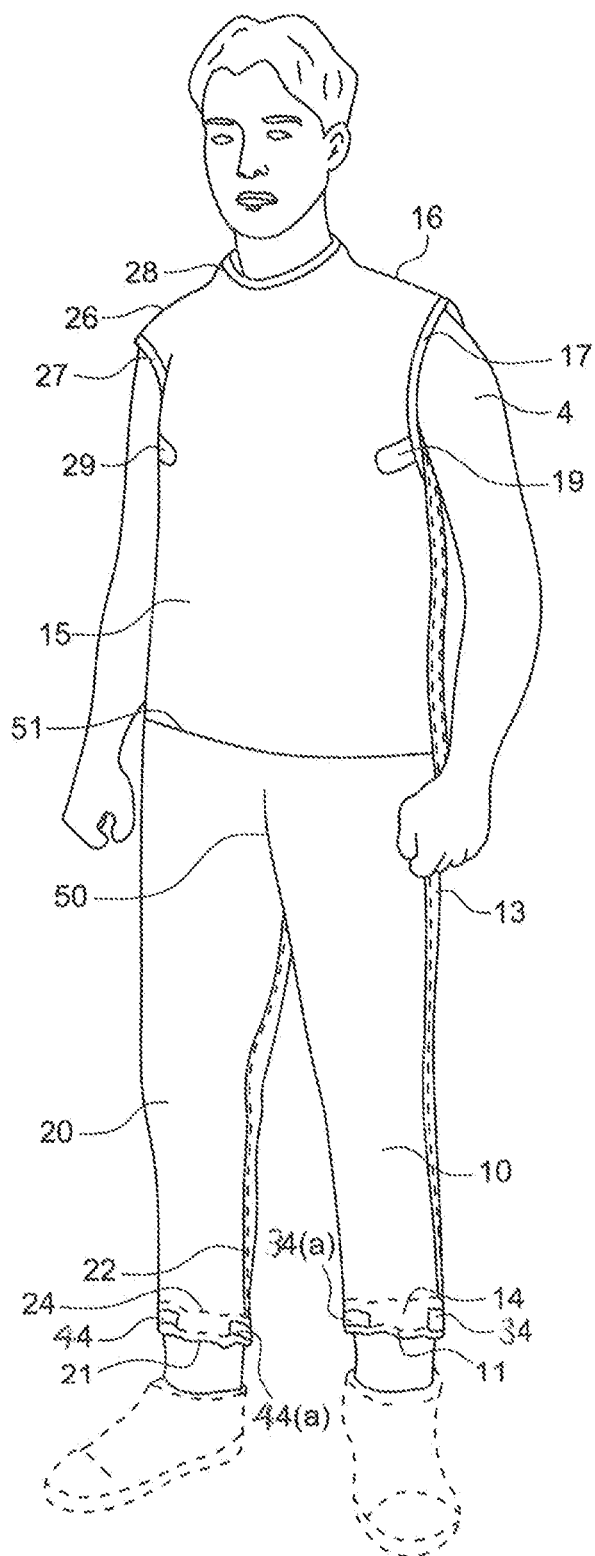


FIG. 11

UNISEX ADAPTIVE GARMENT FOR DISABLED, INCONTINENT, OR INFIRM PATIENTS

CROSS-REFERENCES TO RELATED APPLICATIONS

[0001] Not applicable.

STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT

[0002] Not applicable.

NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT

[0003] Not applicable.

BACKGROUND OF THE INVENTION

(1) Field of the Invention

[0004] The field of the present inventive concept relates generally to protective and/or adaptive clothing for patients who may be infirm or undergoing a stage of dementia or other disabling physical or mental health condition. Besides suffering from various infirmities, such patients are also frequently bedridden. The adaptive garment 1 disclosed is particularly well-suited for use with bedridden, mentally and physically challenged patients. The adaptive garment 1 discloses improved placement of closures, zippers, and adjustable fastening mechanisms. Further the invention presents a unique design that simplifies both the donning, and removal of the garment from a patient.

[0005] Unfortunately, the typical care garments offered to persons in this condition are often inefficient and impractical with respect to coping with waste matter that may accumulate in the underwear/undergarments that may be worn by the patient. This waste matter may be unconsciously touched and handled within the care garment by the patient him/herself which is completely counterproductive to the object of hospitals and care centers of instilling in the patients and their families a sense of health and wellbeing.

[0006] Typical hospital garments, often referred to as "Johnny Coats," normally comprise thin, drafty, and revealing gowns that wrap around the patient and tie in the back. For these reasons, there is a need for garments for use by patients having reduced mental, cognitive, and physical functions. These medical garments must also fit patients of different sizes, either male or female. Moreover, such care garments must be highly functional, and provide caregivers with an efficient way to dress and change the patient's body, whether the patient is standing or lying.

(2) Description of the Related Art, Including Information Disclosed Under 37 CFR 1.97 and 1.98

[0007] U.S. Pat. No. 5,911,312; Holyfield; Jun. 15, 1999. Protective clothing for use in care of elderly and infirm patients. In one embodiment, clothing is provided without any front entry, and with a rear entry slit that has one or more protective flaps which cover and protect a fastener from manipulation by the patient. Preferably, the garment has an elongated zipper running vertically along the center of the rear. The zipper closure is toward the top, ending adjacent

the collar of the garment. One or more, and preferably at least three flaps are provided, anchored on one side of the rear of the garment and disposed to fold substantially horizontally across the zipper, and having hooks provided on the flap to releasably fasten to matched loops located in the other side of the rear of the garment. These protective flaps hinder elderly and infirm patients from engaging the zipper slide so as to loosen and ultimately remove the garment.

[0008] U.S. Pat. No. 9,491,975 B2; Lintel, C.; Nov. 15, 2016. A garment is adapted for use by female patients. A frontal portion of the garment covers at least a portion of the frontal trunk and frontal lower limbs of the female patient when the garment is worn. A left rear portion, in turn, is attached to a leftmost edge of the frontal portion and covers at least a portion of the rear trunk and rear lower limbs of the female patient. A right rear portion is attached to a rightmost edge of the frontal portion and overlaps the left rear portion. In order to secure the garment, a left belt attached to a leftmost edge of the left rear portion passes through a belt hole located proximate to the interface of the frontal portion and the right rear portion as well as a right belt loop, while a right belt attached to a rightmost edge of the right rear portion passes through a left belt loop.

[0009] U.S. Published Patent Application 2011/0231981 A1; Appel et al. Sep. 29, 2011

[0010] A medical gown and method of assembling a medical gown for a patient that provides coverage and dignity as well as easy of treatment and examination. The medical gown may include two garment portions. Each garment portion includes a first panel and a second panel which is generally a mirror image of the first panel. Each garment portion is formed by joining the first panel to the second panel along the first and second top edges and joining the first and second outside edges such that an arm opening is formed between the first and second panels. Each garment portion is thereby adapted to be secured to a patient by placing an arm through the arm opening and releasably joining the closure members together under the patient's opposite arm.

[0011] U.S. Pat. No. 5,418,978; Hochman, S.; May 30, 1995 A one piece washable garment having high thermal qualities and designed as a restraint for old and incapacitated people. The garment is closed at the front except for a small but concealed cavity at the waistline to house a catheter tube. A sheath for accessories is stitched to the underside of the front of the garment. The rear of the garment is divided into two segments held together by a plurality of fasteners, one of which extends from near the neckline to the crotch.

[0012] U.S. Published Patent Application 2008/0000006 A1; Ochoa et al.; Jan. 3, 2008 Disclosed are hospital patient and medical gowns designed to facilitate not only convenient and unobstructed access to the patients body by medical personnel, but also provide an improved fit, ease of wearing, and an enhanced level of modesty and privacy when compared to conventional rear-access hospital gowns.

[0013] U.S. Published Patent Application 2010/0313330 A1; Sampson-Howlett; Dec. 16, 2010; A hospital gown having front and rear openings for convenient access while providing sufficient coverage of the patient's body is provided. In one embodiment, the hospital gown comprises a first segment and a second segment. When one segment is put on a patient by inserting one arm through an arm hole and the other segment is put on in the same manner but on the opposite side of the body, the front and back portions of

the segments overlap at the front and back. The segments may be releasably connected to one another by fasteners located on the first and second segments at the front and back overlapping portions. The first segment then wraps around the patient's body and over a part of the second segment, and the front and back portions of the first segment are releasably connected at or near the side of the patient's body.

BRIEF SUMMARY OF THE INVENTION

[0014] There is an ongoing and growing need for adaptive, protective clothing for the elderly and the infirm, and particularly for mentally deficient patients who may frequently be incontinent or lack sufficient mental faculties to enable reasonable body hygiene while wearing typical patient garments. This problem is rapidly increasing, as large segments of the population are living longer and requiring extended long-term care, whether in the home or institutional settings.

[0015] The disclosed inventive concept is designed, in its primary embodiment, to prevent a patient from accessing their underwear which is usually worn inside the adaptive garment. Removing a patient's access to the inside of the garment will prevent a patient's engaging in fecal smearing, referred to as scatolia. The garment is designed to be worn over a patient's underwear, and not only prevents the patient's access to his/her underwear, but importantly, allows a caregiver to fully dress the patient in the garment whether or not the patient can help participate in donning of the garment. In fact, the garment can also be used for persons who are paralyzed or otherwise immobile and cannot participate in their own dressing.

[0016] Essentially, the disclosed adaptive garment 1 is a one-piece item of clothing for dressing an infirm, debilitated, or incontinent person. The adaptive garment 1 comprises a one-piece quantity of fabric consisting of a front-oriented human body pattern 2, conjoined with a rear-oriented human body pattern 3. Both body patterns 2, 3 are united at junctions corresponding to each pattern's respective left and right shoulders. Upon folding the adaptive garment 1 along said junctions, both body patterns 2, 3 are symmetrical and overlay each other and may be placed on and around a male or female patient with the coordination of a caregiver. The adaptive garment 1 may then be detachably connected, by a variety of mechanical and/or fabric fastening mechanisms at seams along the bodice and leg segments of each respective body pattern 2, 3.

BRIEF DESCRIPTION OF THE VIEWS OF THE
DRAWINGS AS EXEMPLARY EMBODIMENTS
OF THE INVENTIVE CONCEPT

[0017] FIG. 1 displays the outer surfaces of the full one-piece adaptive garment 1, generally illustrating the outer surface of the front-oriented body pattern 2 and the outer surface of the rear-oriented body pattern 3. Both body patterns 2, 3, are shown to be conjoined at their common left shoulder seam 16 and right shoulder seam 26.

[0018] FIG. 1A shows the inner surfaces of the full adaptive garment 1, which physically, are the opposite sides of the surfaces shown in FIG. 1. Displayed are the front-oriented inner surface body pattern 2(a), and the rear-oriented inner surface body pattern 3(a).

[0019] FIG. 2 illustrates the outer surfaces of the bottommost portion of the left front leg segment 10 and the left front hem 11 of the adaptive garment 1, displaying the loop component 67 of a hook-and-loop fastening mechanism.

[0020] FIG. 3 depicts the outer surfaces of the bottommost portion of the left rear leg segment 30 of the adaptive garment 1 and left rear hem 31, further displaying the back sides of two components of hook-and-loop fastening mechanisms 34, 34(a).

[0021] FIG. 4 is a rendering of the bottommost portion of the left front leg segment 10 of the adaptive garment 1, with a hook-and-loop fastening mechanism 34, 34(a) being engaged with the exposed loop component 67.

[0022] FIG. 5 illustrates the bottommost portion of the left front leg segment 10 of the adaptive garment 1, with the hook-and-loop mechanism 67 being fully engaged in the closed position. Additionally shown is the hem 11 having been drawn taut.

[0023] FIG. 6 shows an alternative embodiment of a fastening means, being a buckle-type fastener, proximate the right front leg segment 20 of the adaptive garment 1.

[0024] FIG. 7 shows the rear lower surface of the right rear leg segment 40, having an adjustable locking strap 62 of a parachute-type, buckle and claw fastening mechanism.

[0025] FIG. 8 illustrates the bottommost portion of the right front leg segment 20 pending the fastening of a male buckle fastener 61 into a female buckle component 63. Immediately underneath the fasteners 64, 65 there is shown the right front hem 21 of the right front leg segment 20.

[0026] FIG. 9 presents is a fastening means for the rear bodice 25 of the adaptive garment 1, where there is shown the embodiment of a hook-and-loop fastening mechanism 66, 67 arranged laterally across the bodice outer surface 25.

[0027] FIG. 10 illustrates the bodice outer surface 25 of the adaptive garment 1, further showing a set of adjustable fasteners consisting of a column of male snaps 64 and an array of female snaps 65.

[0028] FIG. 11 depicts a patient 4, standing while fully clothed in an embodiment of the adaptive garment 1.

[0029]

Table of Nomenclature & Part Numbers of Invention

- 1. Adaptive garment
- 2. Front-oriented pattern outer surface
- 2(a) Front-oriented pattern inner surface
- 3. Rear-oriented pattern outer surface
- 3(a) Rear-oriented pattern inner surface
- 4. Patient
- 5.-9. n/a
- 10. Left front leg segment
- 10(a) Left front leg inner surface
- 11. Left front hem
- 12. Left front leg inseam
- 13. Left front leg outseam.
- 14. Left front leg loop fastener
- 15. Front bodice
- 15(a) Front-bodice inner surface
- 15(b) Front bodice outer surface
- 16. Left shoulder junction
- 16(a) Left inner shoulder junction
- 17. Left armhole
- 17(a) Left rear armhole
- 18. Front crotch
- 19. Left clasp device
- 20. Right front leg segment
- 20(a) Right front leg inner surface

-continued

Table of Nomenclature & Part Numbers of Invention	
21.	Right front hem
22.	Right front leg inseam
23.	Right front leg outseam
24.	Right front leg loop fastener
25.	Rear bodice
25(a)	Rear bodice inner surface
25(b)	Rear bodice outer surface
26.	Right shoulder junction
26(a)	Right inner shoulder junction
27.	Right armhole
27(a)	Right rear armhole
28.	Front neck opening
28(a)	Rear neck opening
29.	Right clasp device
30.	Left rear leg segment
30(a)	Left rear leg inner surface
31.	Left rear hem
32.	Left rear leg inseam
33.	Left rear leg outseam
34.	Left outer leg fastener
34(a)	Left inner leg fastener
35.-38.	n/a
39.	Left clasp receptor
40.	Right rear leg segment
40(a)	Right rear leg inner surface
41.	Right rear hem
42.	Right rear leg inseam
43.	Right rear leg outseam
44.	Right outer leg fastener
44(a)	Right inner leg fastener
45.-48.	n/a
49.	Right clasp receptor
50.	Front crotch seamline
51.	Front waist seamline
52.	Rear waist seamline
53.	Rear crotch seamline
60.	Circumferential opening
61.	Female buckling device
62.	Adjustable locking strap
62(a)	Strap female component
62(b)	Strap male component
63.	Male buckling device
64.	Male snap fastener
65.	Female snap fastener
66.	Hook component fastener
67.	Loop component fastener

DETAILED DESCRIPTION OF THE INVENTION

[0030] The objects, features, and advantages of the inventive concept presented in this application are more readily understood when referring to the accompanying drawings. The drawings, totaling twelve figures, show the basic components and functions of embodiments and/or methods of use. In the figures, like reference numbers are used in each figure to correspond to the same component as may be depicted in other figures.

[0031] The terminology used herein is for the purpose of describing particular embodiments only and is not intended to be limiting of the invention. As used herein, the term “and/or” includes any and all combinations of one or more of the associated listed items. As used herein, the singular forms “a,” “an,” and “the” are intended to include the plural forms as well as the singular forms, unless the context clearly indicates otherwise. It will be further understood that the terms “comprises” and/or “comprising,” when used in this specification, specify the presence of stated features, steps, operations, elements, and/or components, but do not

preclude the presence or addition of one or more other features, steps, operations, elements, components, and/or groups thereof.

[0032] By way of introduction, it is an unfortunate fact that hundreds of persons suffering from dementia and other mental and physical infirmities also suffer from incontinence. Many dementia patients additionally suffer from dual (or double) incontinence which is the presence of both urinary and fecal incontinence over which the patient has no control. At this writing, the typical adaptive care garments available for or offered to persons with these conditions are often ineffective, inefficient, and impractical with respect to ease of dressing and undressing a patient or preventing a patient from accessing the insides of his/her care garments.

[0033] In the current health care environment, choices for adaptive garments that address feces smearing are extremely limited and do not address the need to easily dress and undress bedridden patients who have limited or nonexistent movement of their legs and arms. Most adaptive garments are designed primarily to prevent inappropriate undressing by the patient, but not as a means of preventing fecal smearing. The patient garments and/or gowns available generally have no functional means to prevent a patient from accessing the inside of their underwear. There are also jumpsuit- and jumper-style garments that may zip and fasten up a back junction on the garment, to prevent removal of the garment by the patient, but these require assistance from the patient in putting on or taking off the garment.

[0034] From the foregoing discussion, it becomes apparent that one important and primary objective of the present inventive concept resides in the providing of new and useful protective clothing which is fabricated so as to prevent removal by a patient. The garment should be capable of being placed on the patient by a single caregiver, with or without the patient’s assistance.

[0035] An important objective is to fabricate the garment in different size ranges having several adjustable fittings and closures, thereby accommodating a variety of different body shapes and sizes, while achieving a comfortable fit.

[0036] Other important objectives of the inventive concept include the providing of an adaptive clothing ensemble for the elderly and the infirm which:

[0037] (a) is practical and efficient in the initial preparation, arrangement, layout, and placement of the clothing about the wearer’s body;

[0038] (b) will markedly reduce the chances of a wearer removing the garment;

[0039] (c) will substantially prevent the wearer from reaching inside and touching body waste, which causes contamination of his/her hands, face, hair, clothing, bed linens, and other items inadvertently touched;

[0040] (d) is practical and efficient in the care of the garment (machine washable and dryable);

[0041] (e) does not require medical or specialized training on the part of the caregiver in order to use the garment with the patient; and

[0042] (f) can be provided with simple fastening mechanisms and fittings such that caregivers can easily place a patient into the adaptive garment 1, and further, can efficiently remove the adaptive garment 1 from the patient at the appropriate time.

[0043] Other important objects, features, and additional advantages of this inventive concept will become apparent

as details are revealed through the ensuing detailed description, the accompanying drawings, and from the appended Claims herein.

[0044] Essentially, the disclosed inventive concept is a one-piece adaptive garment **1** to be worn by an infirm, debilitated, or incontinent person. The primary intent of the adaptive garment **1** is to minimize the possibility that the wearer may engage in behavior which is medically termed, “scatolia.” The garment comprises a unitary segment of fabric consisting of a front-oriented human body pattern **2** and an identical rear-oriented human body pattern **3**.

[0045] Both these body patterns **2, 3** are united at junctions **16, 26** which correspond to their respective left and right shoulders. Additionally, upon folding the adaptive garment **1** at the shoulder junctions **16, 26**, and placing both body patterns **2, 3** about a patient’s body, both body forms **2, 3** may be detachably connected by fastening mechanisms along the inseams **12, 22, 32, 42** and out-seams **13, 23, 33, 43** of the adaptive garment **1**. The term, “front-oriented body pattern” signifies that the body pattern generally conforms to the frontal body contour of a person. Similarly, the term “rear-oriented body pattern” signifies that the body pattern generally conforms to the rear body contour of a person.

[0046] The discussion of the present inventive concept will be initiated with FIG. **1**, which displays the entirety of the outer surfaces of the adaptive garment **1**. For reference purposes, FIG. **1** shows the front-oriented outer body pattern **2** and the rear-oriented outer body pattern **3**, both being symmetrical. Both body patterns **2, 3**, are conjoined at the left shoulder junction **16** and the right shoulder junction **26**, such that when they overlay each other, there is formed the complete one-piece, adaptive garment **1**.

[0047] FIG. **1** displays the outer surfaces of the most essential components of the adaptive garment **1**, being the front bodice **15**, the outer surface of the left front leg segment **10**, the outer surface of the right front leg segment **20**, the outer surface of the rear bodice **25**, the outer surface of the left rear leg segment **30**, and the outer surface of the right rear leg segment **40**. Near the upper part of FIG. **1** is shown a left front leg loop fastener **14**, attached to the outer surface of the left front leg segment **10**. Also shown is a right front leg loop fastener **24**, attached to the outer surface of the right front leg segment **20**.

[0048] FIG. **1** also indicates the location of the left shoulder junction **16** and right shoulder junction **26**, both these shoulder junctions **16, 26**, being the common areas where the front-oriented body pattern outer surface **2** and rear-oriented body pattern outer surface **3** are joined. Further shown, at the bottommost view of FIG. **1**, are the rear edges of a left outer leg hook fastener **34**, a left inner leg hook fastener **34(a)**, a right outer leg hook fastener **44**, and a right inner leg hook fastener **44(a)**. The hook-and-loop fasteners are the preferred embodiment of adjusting the bottommost leg openings of the leg segments **10, 20, 30, 40** about a patient’s calves. Upon a patient donning the adaptive garment **1**, these fasteners **34, 34(a), 44, 44(a)**, are designed to be attached to the respective left front leg loop fastener **14** and the right front leg loop fastener **24**.

[0049] Further shown in FIG. **1** are fastening means which include a left clasp device **19** and a right clasp device **29**. The left clasp device **19** is utilized to attach to a left clasp receptor **39**, while the right clasp device **29** is utilized to attach to a right clasp receptor **49**. By use of the clasps **19, 29** and clasp receptors **39, 49**, the left armhole opening **17**

and right armhole opening **27** are made snug against a patient’s body and minimized in size. This arrangement serves to prevent a wearer from accessing the interior of the adaptive garment **1** through either of the armhole openings **17, 27**.

[0050] The clasp devices **19, 29** and clasp receptors **39, 49** may comprise any of a variety of fasteners, including snaps, hook-and-loop mechanisms, zippers, buttons, plastic tracks, clips, or other fastening means. In the preferred embodiment, the clasp devices **19, 29** and clasp receptors **39, 49** are constructed as hook-and-loop mechanisms.

[0051] As further clarification, the components and functions discussed in FIG. **1** are more readily understood with a corresponding viewing of FIG. **1A**. FIG. **1A** is a rendering of the inner surfaces of the adaptive garment **1**. In fact, FIG. **1A** displays the reverse side of the adaptive garment **1** shown in FIG. **1**. FIG. **1A** specifically illustrates the front-oriented body pattern inner surfaces **2(a)** and the rear-oriented body pattern inner surfaces **3(a)**. Both body pattern inner surfaces **2(a), 3(a)**, are united, or conjoined, at the left inner shoulder seam **16(a)** and the right inner shoulder seam **26(a)**.

[0052] FIG. **1A** shows the inner surfaces **2(a), 3(a)** to consist of the front bodice inner surface **15(a)**, the inner surface of the right front leg segment **20(a)**, the inner surface of the left front leg segment **10(a)**, the inner surface of the rear bodice **25(a)**, the inner surface of the right rear leg segment **40(a)**, and the inner surface of the left rear leg segment **30(a)**. FIG. **1A** also indicates the location of the left shoulder junction **16** and right shoulder junction **26** both these shoulder junctions being identical and co-located with the front-oriented body pattern inner surface **2(a)** and rear-oriented body pattern inner surface **3(a)**.

[0053] At its bottommost portion, FIG. **1A** displays views, or partial views, of embodiments of fastening means, including the right outer leg hook fastener **44**, the right inner leg hook fastener **44(a)**, left outer leg hook fastener **34**, and the left inner leg hook fastener **34(a)**. The fastening mechanisms shown in FIG. **1A** may also be replaced by other embodiments, including snaps, hook-and-loop mechanisms, zippers, plastic tracks, clasps, locks, and others,

[0054] FIG. **1** and FIG. **1A** collectively display several pairings of locations that serve as corresponding means of fastening the various segments of the adaptive garment **1**. The first pairing is seen to be a left front leg outseam **13** which is compatibly matched to a left rear leg outseam **33**. A second pairing, seen in both FIG. **1** and FIG. **1A**, is a right front leg outseam **23** which corresponds to a right rear leg outseam **43**. A third pairing is seen to be a left front leg inseam **12** which corresponds to a left rear leg inseam **32**. Finally, a right front leg inseam **22** is fabricated to be compatible with a right rear leg inseam **42**.

[0055] In viewing FIG. **1** and FIG. **1A**, the adaptive garment **1** is fabricated such that the above-mentioned pairings of locations also provide the positions at which fastening means are utilized to attach the front bodice **15** and rear bodice **25**. It is to be noted that the pairing of the left front leg outseam **13** and the left rear leg outseam **33** both extend into the area of the front bodice **15** and rear bodice **25**, respectively. Similarly, the right front leg outseam **23** and right rear leg outseam **43** each extend into the material comprising the front bodice **15** and rear bodice **25**.

[0056] In the preferred embodiment, mated zippers, including sliders, stops, and pull tabs, are incorporated into the locations of the inseams pairings **12-32, 22-42** and

outseams 13-33, 23-43, to provide fastening of the left leg segments 10, 30 and right leg segments 20, 40 of the adaptive garment 1. It is to be noted that other mechanisms and means of fastening together the left leg segments 10, 30, and the right leg segments 20, 40 may also be utilized, as set forth above.

[0057] In referring to FIG. 2, there is shown a closeup view of the lower extremity of the left front leg segment 10 of the adaptive garment 1. Further illustrated is a left front leg fastener 14, comprising the loop component 67 of a hook-and-loop fastening system. A perimetral left front hem 11, in which a circumferential opening 60 is arranged for the possible use of a drawstring to cinch the left front hem 11 about the left leg of a wearer.

[0058] In viewing FIG. 3, a closeup view of the lower extremity of the left rear leg segment 30 is shown. There is revealed a left outer leg fastener 34 and a left inner leg fastener 34(a), both sewn to opposite sides of the left rear leg segment 30. The left outer leg fastener 34 and left inner leg fastener 34(a) are each fabricated with the hook component 66 (not in view) of a hook-and-loop fastening mechanism. A left rear hem 31 is also shown, along with its opening 60, which enables the possible use of a drawstring to cinch the left rear hem 31, as necessary.

[0059] In the course of a caregiver dressing a patient in the adaptive garment 1, a connective union is formed between the left outer leg fastener 34 and left inner leg fastener 34(a) about a portion of the left front leg loop fastener 14 (shown in FIG. 2, FIG. 4, and FIG. 5). FIG. 4 is a rendering of the bottommost portion of the left front leg segment 10 of the adaptive garment 1, with a hook-and-loop fastening mechanism being partially engaged. In this configuration, the left outer leg hook fastener 34 and left inner leg hook fastener 34(a) have been pulled forward so as to make contact with the left front leg loop fastener 14 integral to the left front leg 10. Further shown is the exposed loop component 67 of the hook-and-loop fastening mechanism. Also shown is the left front hem 11 and its opening 60.

[0060] In the same manner, the right outer leg fastener 44 and right inner leg fastener 44(a) are to be connected by the caregiver, if a hook-and-loop fastening mechanism is provided. Although not illustrated, the result of such connection would be similar to that shown in FIG. 4, the result being the right outer leg hook fastener 44 and left inner leg book fastener 44(a) being pulled forward so as to make contact with the loop component 67 of the right front leg loop fastener 24 integral to the right front leg 20.

[0061] FIG. 5 depicts the application, by the caregiver, of increased tightening of the left outer leg fastener 34, and inner leg fastener 34(a). A drawstring or other mechanism may be utilized to provide a tightly compressed left hem 11. FIG. 5, again, illustrates the bottommost portion of the left front leg segment 10 of the adaptive garment 1. FIG. 5 shows the additional tightening of the hook-and-loop components 67, 34, 34(a) of the left front leg loop fastener 14, and further, the hem 11 of the left front leg segment 10 being drawn more tightly toward fully closed.

[0062] FIG. 6 illustrates a different fastening embodiment, being a male and female buckling arrangement 61, 63, serving to adjust the fit of the leg openings.

[0063] FIG. 7 and FIG. 8 depict front and rear views of the embodiment for fastening together the right front leg segment 20 and the right rear leg segment 40 proximate the area of the right front hem 21. FIG. 7 illustrates the rear portion

of an adjustable locking strap 62 sewn onto the outer surface of the right rear leg segment 40 of the adaptive garment 1. The right rear hem 41 is shown, in close proximity to the strap 62.

[0064] FIG. 8 illustrates the continuation of both ends of the adjustable locking strap 62 of FIG. 7, one end being connected to a female buckle component 63 and the opposite end connecting to a male buckle component 61. FIG. 8 presents the front view of the fastening mechanism of FIG. 7, pending fastening against the right front leg segment 20.

[0065] In a similar manner, the bottommost portions of the left front leg 10 and left rear leg 30 will also be fastened together in the same manner, near the patient's calves, if the adaptive garment 1 is fabricated using male female buckle fastening combination 61, 63.

[0066] In FIG. 9, there is presented an additional option for adjusting the fit and security of the adaptive garment 1, FIG. 9 shows a view of the outer surface of the rear bodice 25 of an adaptive garment 1, further showing an embodiment of a hook-and-loop fastening mechanism, 66, 67 arranged laterally across the rear bodice outer surface 25(b).

[0067] FIG. 10 displays a different embodiment of a means for adjusting the fit of the rear bodice 25 of the adaptive garment 1. Shown in FIG. 10, is the outer surface (b) of the rear bodice 25 as it contains an array of female snap fasteners 65 and an arrangement of a column of three correspondingly positioned male snap fasteners 64. This enables the rear bodice 25 of the adaptive garment 1 to be adjustably tightened by variable placement of the connection between the male snap fasteners 64 and the female snap fasteners 65.

Methods of Clothing a Patient in the Adaptive Garment 1

[0068] In considering all illustrations thus far presented, an efficient method for a caregiver effecting the donning of the adaptive garment 1 by a patient 4 may be initiated by the caregiver first, placing the neck opening 28 over the head of the prospective patient 4, preferably while the patient 4 is standing. The next step would logically be overlapping the inner surfaces 2(a), 3(a), of the adaptive garment 1 (see FIG. 1A) about the exterior contours of the body of the patient 4.

[0069] The following procedures describe sequences in which the adaptive garment 1 utilizes zippers as the fastening means for the leg inseam pairings 12-32, 22-42, and outseam pairings 23-43, 13-33, and also the front and rear bodices 15, 25. The caregiver uses these integral means provided for fastening the adaptive garment 1, beginning at the left armhole 17 of the patient 4, connecting the left front bodice 15(a) to the left rear bodice 25 (b), the left front leg outseam 13 to the left rear leg outseam 33, which connection terminates directly above the left front hem 11 and left rear hem 31.

[0070] Next, the caregiver engages the fastening means proximate the right armhole 27 of the patient 4, connecting the right front bodice 15 to the right rear bodice 25, the right front leg outseam 23 to the right rear leg outseam 43, which connection terminates directly above the right front hem 21 and right rear hem 41. The donning sequence continues with the caregiver fastening the left leg front inseam 12 to the left leg rear inseam 32, and immediately continuing the movement of the zipper so as to fasten the right leg front inseam 22 to the right leg rear inseam 42, these two steps automatically closing the crotch area 18 of the adaptive garment 1.

[0071] The caregiver then attaches the left front clasp device 19 to the left rear clasp receptor 39 and also attaches the right front clasp device 29 to the right rear clasp receptor 49. The final step is for the caregiver to adjust the fit of the leg openings around the patient's left and right calves, and in so doing, conceal the zipper pull, assuming the leg inseams and outseams were connected by zippers. The securing of the hems 11-31 and 21-41 may be accomplished by use of front and rear hook-and-loop fasteners 14, 34, 34(a) for the left leg pairing 10-30 and the utilization of front and rear hook-and-loop fasteners 24, 44, 44(a) for the right leg pairing 20-40.

[0072] An alternative method of donning the adaptive garment 1, particularly with bedridden patients, would be placement of the outer surfaces of the adaptive garment 1 upon a bed adjacent to the prone body of the patient 4. A caregiver then carefully turns the patient, allowing half the exposed inner surfaces 2(a), 3(a) of the adaptive garment 1 to be pushed under the body of the patient 4, where the adaptive garment 1 is then pulled out from the other side of the prone body of the patient 4.

[0073] Thereafter, the caregiver maneuvers the neck opening 28 over the head of the patient, then, starting at the underarm, fastens bodice segments 15, 25, continuing with leg outseams 13 to 33, and ending directly above the left front and rear hems 11, 31. Next, the bodice segments 15, 25 are connected, followed by the right leg outseam segments 23 to 43, ending directly above the right front and rear hems 21, 41. Thus the leg segments 10, 30, 20, 40 are fastened about the patient. It is to be noted that each leg outseam, 13, 23, 33, 43 extends the full length of the front/back body pattern, 2, 3 from the armholes 17, 27 to the hems 11, 21. This feature makes it more efficient and practical to enclose and fasten each leg segment 10, 30, 20, 40.

[0074] As additional information, the adaptive garment 1 may function effectively using any one of several types of fastening mechanisms, including snaps, hook-and-loop mechanisms, zippers, buttons, staples, plastic tracks, clips, and others.

[0075] FIG. 11 depicts a patient 4, standing while fully clothed in an embodiment of the adaptive garment 1. In viewing FIG. 11, it is to be noted that the right front hem 21 and right rear hem 41, along with the left front hem 11 and left rear hem 31 are fabricated so as to be extend and be connectable proximate the area of a user's respective right and left mid-calf. This placement thus gives more of a snug fit so as to prevent the patient from inserting his/her arms and hands upward inside the hems 11, 21 of the adaptive garment 1 and toward the pelvic area.

[0076] While preferred embodiments of the present inventive method have been shown and disclosed herein, it will be obvious to those persons skilled in the art that such embodiments are presented by way of example only, and not as a limitation to the scope of the inventive concept. Numerous variations, changes, and substitutions may occur or be suggested to those skilled in the art without departing from the intent, scope, and totality of this inventive concept. Such variations, changes, and substitutions may involve other features which are already known per se and which may be used instead of, in combination with, or in addition to features already disclosed herein. Accordingly, it is intended that this inventive concept be inclusive of such variations, changes, and substitutions, as described by the scope of the claims presented herein.

What is claimed is:

1. A one-piece garment for wearing by an infirm, debilitated, or incontinent person, the garment comprising a one-piece quantity of fabric having two symmetrical, conjoined patterns, consisting of a front-oriented body pattern and a rear-oriented body pattern, both body patterns united at two junctions, corresponding to the respective left and right shoulders of each body pattern, and further, upon folding the garment along said junctions, both body patterns overlay each other, thereby enabling the patterns to be detachably connected to each other.
2. A one-piece garment for minimizing the possibility of engaging in scatolia by an infirm, or incontinent person, the garment comprising a one-piece, folding quantity of fabric comprising (a) a front-oriented body pattern having left and right front leg segments, a front bodice; and (b) a rear-oriented body pattern having a left and right rear leg segments, a rear bodice, wherein (c) the front-oriented body pattern and the rear-oriented body pattern are permanently conjoined at common left shoulder and right shoulder junctions, and further, (d) the front-oriented body pattern and the rear-oriented body pattern are detachably connected at seams along the respective front and rear bodices, and seams along the respective left leg and right leg segments.
3. The one-piece garment of claim 2, wherein
 - (a) the front-oriented body pattern comprises a front bodice having a front neck opening, left armhole, and a right armhole; a left front leg having a leg hem, an inseam, and an out-seam extending to the front bodice; a right front leg segment having a leg hem, an inseam, and an out-seam extending to the front bodice; a left clasp device, and a right clasp device;
 - (b) the rear-oriented body pattern comprises a rear bodice having a rear neck opening, left armhole and right armhole; a left rear leg segment having a leg hem, an inseam, and an out-seam extending to the rear bodice; a right rear leg segment having a leg hem, an inseam, and an out-seam extending to the rear bodice, a left clasp receptor, and a right clasp receptor;
 - (c) the left front leg segment and left rear leg segment have mutually corresponding fastenings incorporated into (i) the length of their respective inseams and (ii) the length of their out-seams, including extensions of the outseams to the front bodice; and
 - (d) the right front leg and right rear leg have mutually corresponding fastening means incorporated into (i) the length of their respective inseams, and (ii) their out-seams, including extensions of the outseams to the rear bodice.
4. The one-piece garment of claim 2, wherein the means for fastening the outseams and inseams of the front and rear leg segments, and the fastenable seams of the front and rear bodices consists of any one of a variety of cooperative-mated fasteners selected from the group consisting of hook-and-loop mechanisms, male and female snaps, zippers, plastic rails, buckles, buttons, claws, and clasps.
5. The one-piece garment of claim 2, wherein the clasp devices and clasp receptors consists of any one of a variety of mated fasteners selected from the group consisting of hook-and-loop, snaps, zippers, plastic tracks, buckles, buttons, claws, and latches.

6. A method for employing a garment for clothing a disabled, infirm, and/or incontinent person so as to minimize the possibility of the wearer engaging in scatolia, the method comprising the steps of:

- (a) providing suitable fabric material for constructing a one-piece garment consisting of two conjoined patterns, being a front-oriented body pattern, and a rear-oriented body pattern;
- (b) constructing the front-oriented body pattern so as to include:
 - (i) a left front leg segment having an inseam, outseam, and hem;
 - (ii) a right front leg segment, having an inseam, outseam, and hem,
 - (iii) a front neck opening, left front shoulder seam and a right front shoulder seam;
 - (iv) a front bodice segment having left and right armholes, fastenable seams, and left and right clasping devices;
- (c) constructing the rear-oriented body pattern so as to include:
 - (i) a left rear leg segment having an inseam, outseam, and hem;
 - (ii) a right rear leg segment, having an inseam, outseam, and hem,
 - (iii) a rear neck opening, a left rear shoulder seam, and a right rear shoulder seam;
 - (iv) a rear bodice segment having left and right armholes fastenable seams; and left and right clasp receptors;
- (d) fabricating the front-oriented body pattern and the rear-oriented body pattern such that both are conjoined at their respective left and right shoulder seams, thereby forming a left shoulder junction and a right shoulder junction;
- (e) providing means for fastening the outseams and inseams of the front leg segments to the corresponding outseams and inseams of the rear leg segments;

- (f) providing means for fastening the front and rear bodices at their corresponding seams;
- (g) providing a means for tightly securing the left front and left rear hems and also the right front and right rear hems proximate the mid-calf area of a wearer;
- (h) placing the unitary garment about the body of the subject person;
- (i) fastening the front and rear leg inseams and outseams, and fastening the front and rear bodice segments;
- (j) securing the leg cuffs about the mid-calf area both legs of the person; and
- (k) attaching the left and right clasp devices to the respective left and right clasp receptors.

7. The method of claim 6, wherein the means for fastening the outseams and inseams of the front and rear leg segments, and the fastenable seams of the front and rear bodices consists of any one of a variety of cooperative-mated fasteners selected from the group consisting of hook-and-loop mechanisms, male and female snaps, zippers, plastic rails, buckles, buttons, claws, and clasps.

8. The method of claim 6, wherein the left and right clasp devices and the left and right clasp receptors consists of any one of a variety of cooperative-mated fasteners selected from the group consisting of hook-and-loop mechanisms, male and female snaps, zippers, plastic rails, buckles, buttons, claws, and clasps.

9. The method of claim 6, wherein (a) the hem of the left front leg segment is connected to the hem of the left rear leg segment and (b) the hem of the right front leg segment is connected to the hem of the right rear leg segment by the utilization of any one of a variety of cooperative-mated fasteners selected from the group consisting of hook-and-loop mechanisms, drawstrings, male and female snaps, zippers, plastic rails, buckles, buttons, claws, and clasps.

* * * * *