



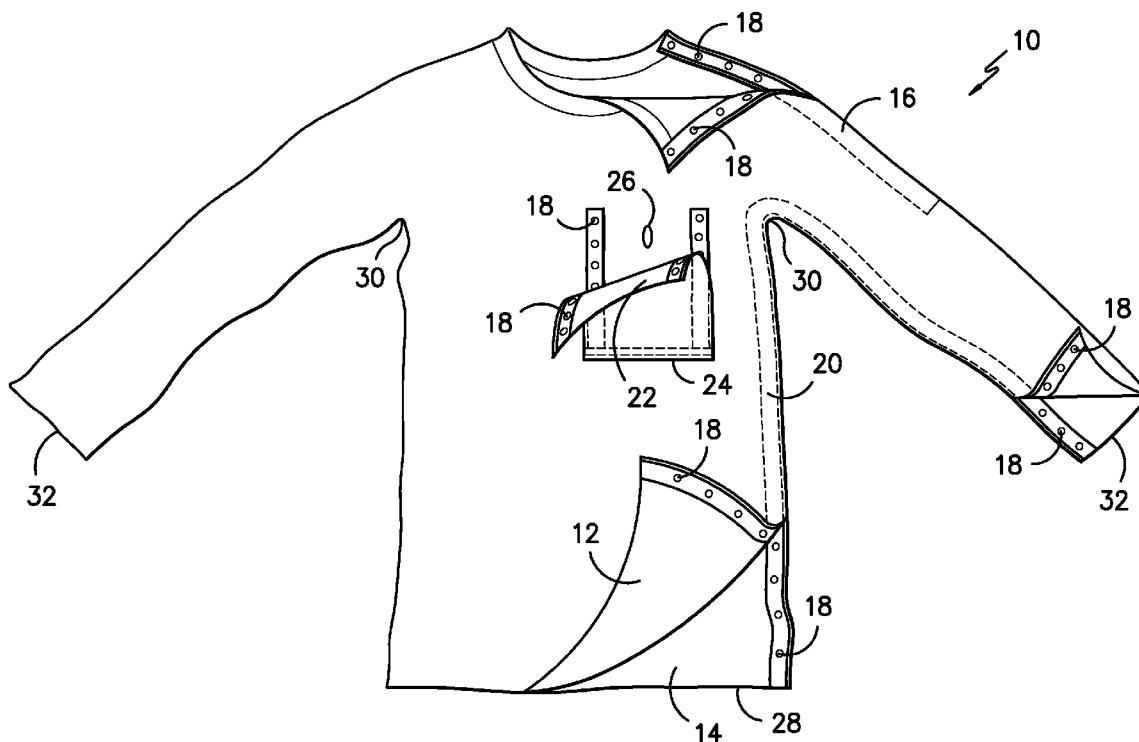
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Theodossiou(10) **Pub. No.: US 2015/0101102 A1**(43) **Pub. Date: Apr. 16, 2015**(54) **MEDICAL GARMENT**(71) Applicant: **Christian Theodossiou**, Asheville, NC
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ABSTRACT

A garment used for medical purposes is disclosed. The garment may include one or more slits or openings strategically positioned therein, so that medical equipment may be inserted through the slits, which provide access to a patient's body or skin. The slits may be positioned along the sides of the garment, and may include attachment means, such as snaps, buttons, hook and loop fasteners, or any other suitable means. A slit may also be positioned on the front or back portion of the garment so that medical equipment may be inserted through the slit to make contact with a wearer's body, it may further be covered by a pocket flap that may open to allow access to the slit and close to allow coverage and further allow for the storage of wires or tubes that remain connected to wearer's body but not connected to their associated medical equipment.



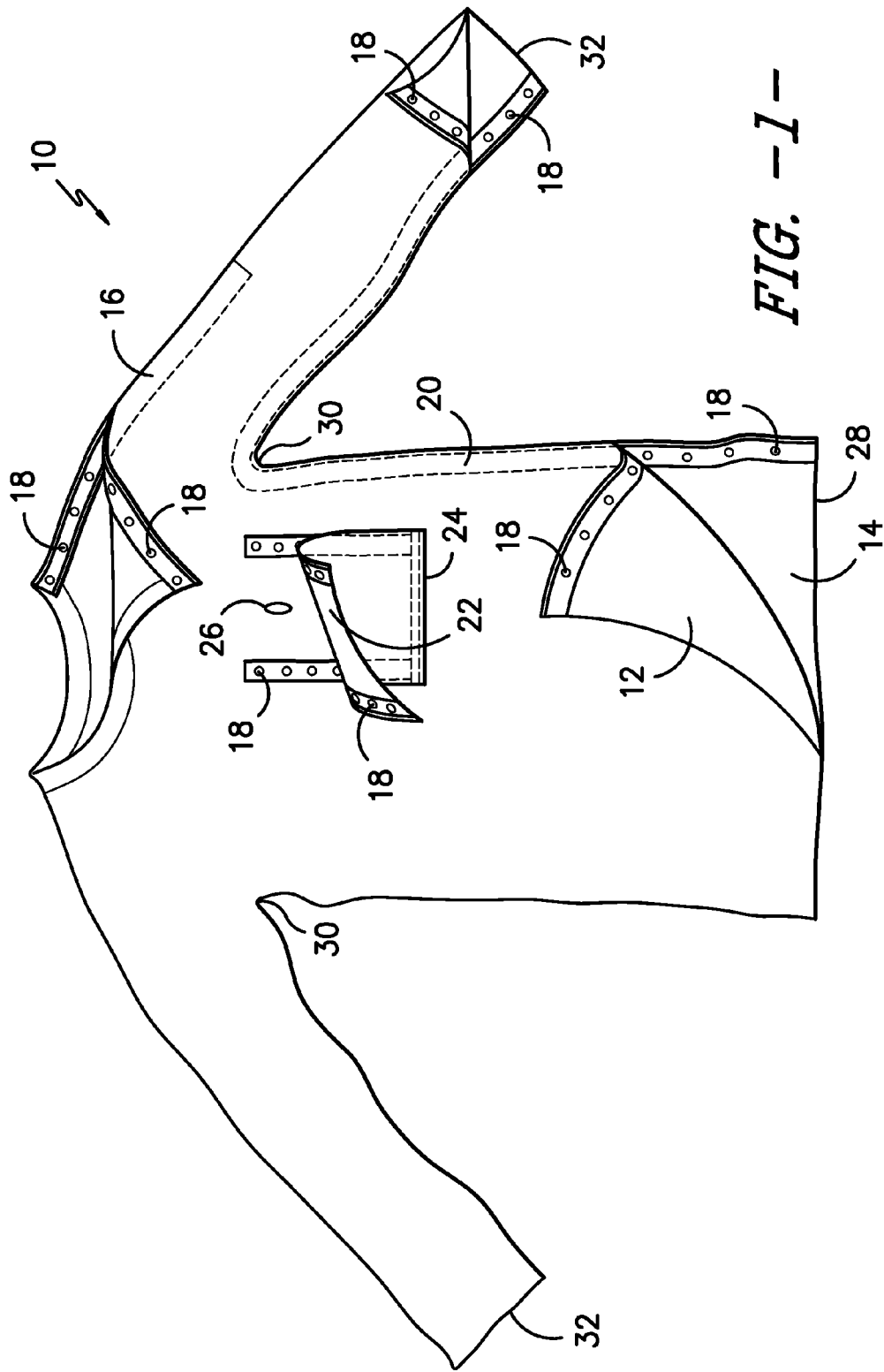
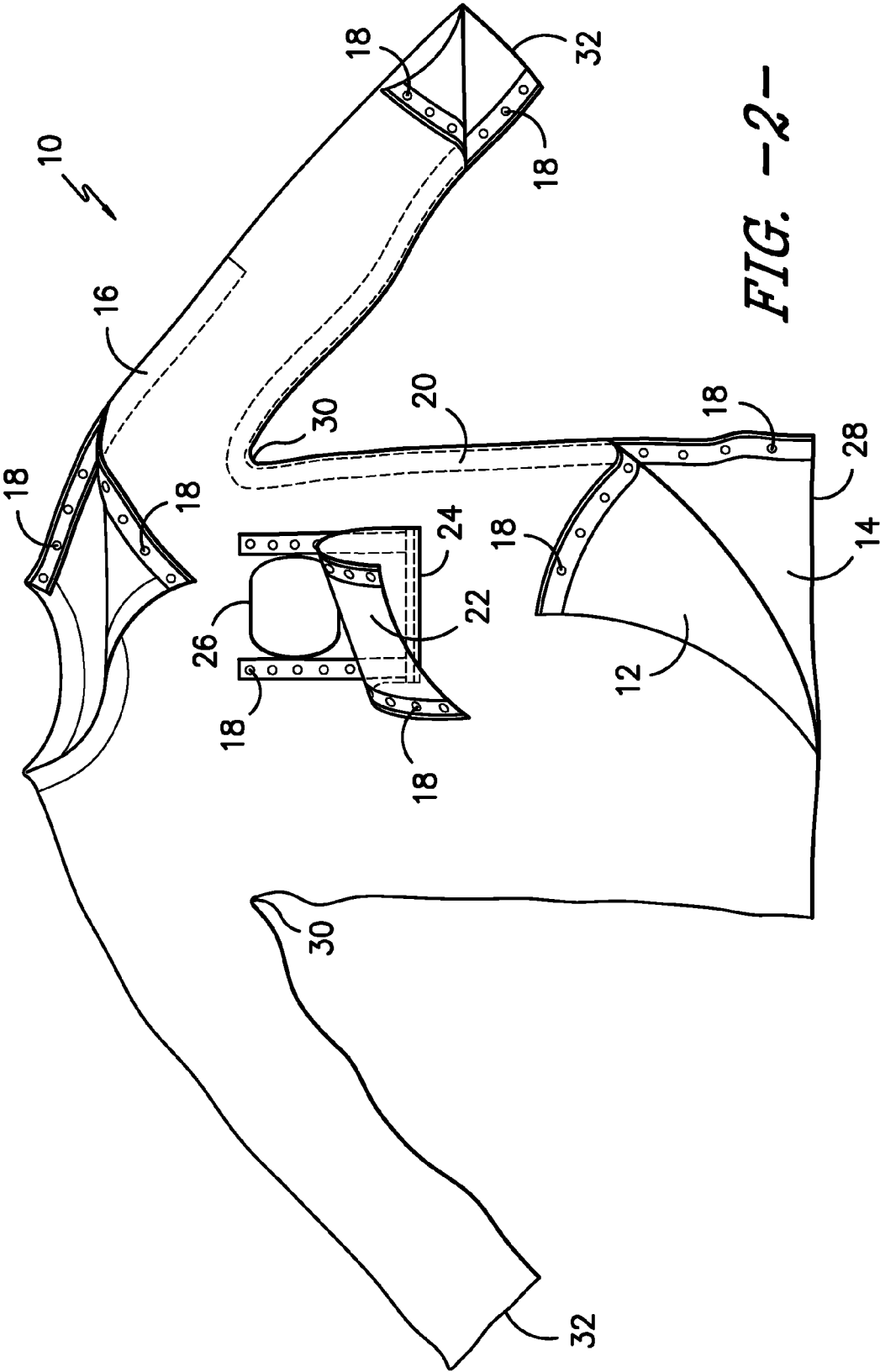


FIG. -1-



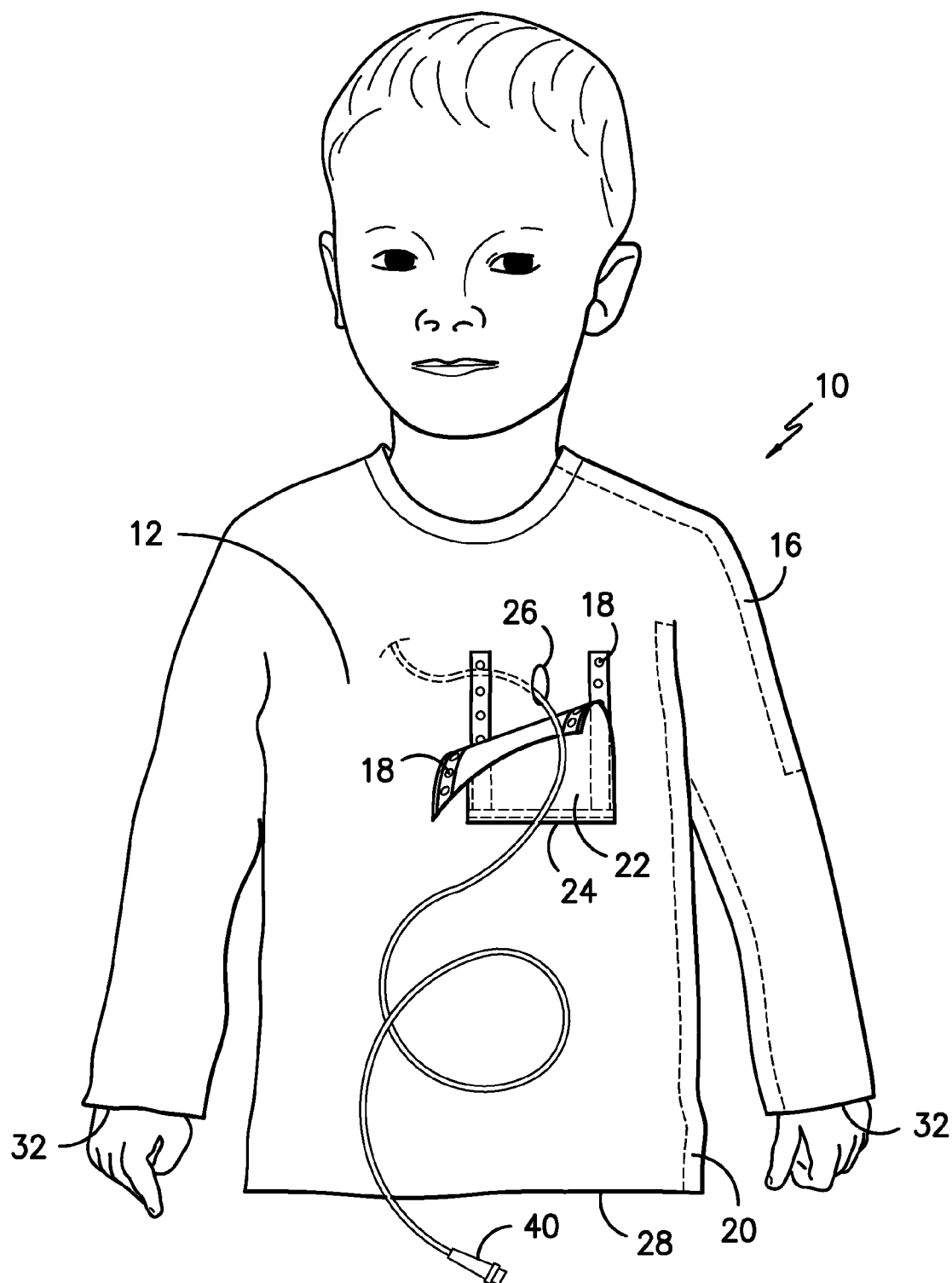


FIG. -3-

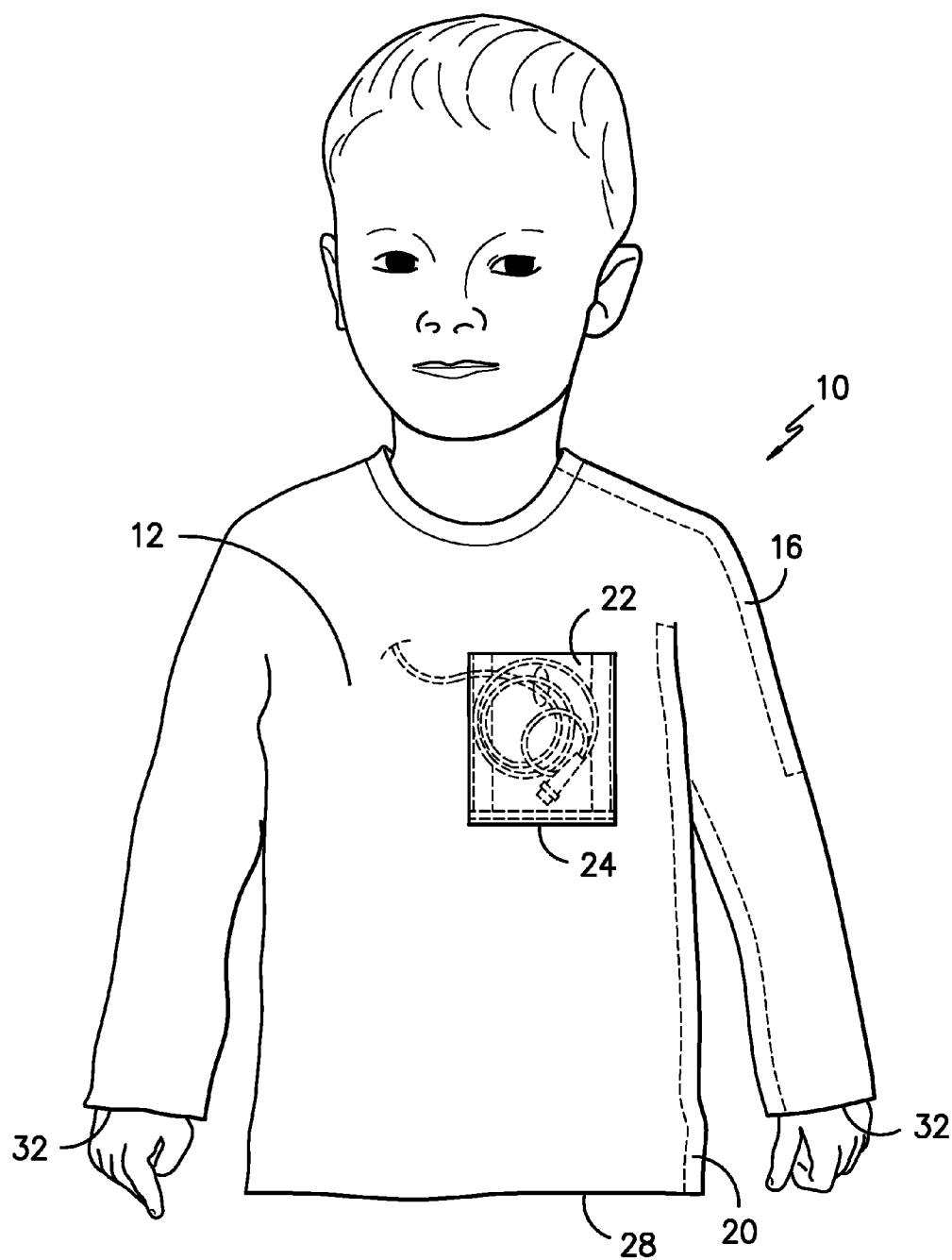
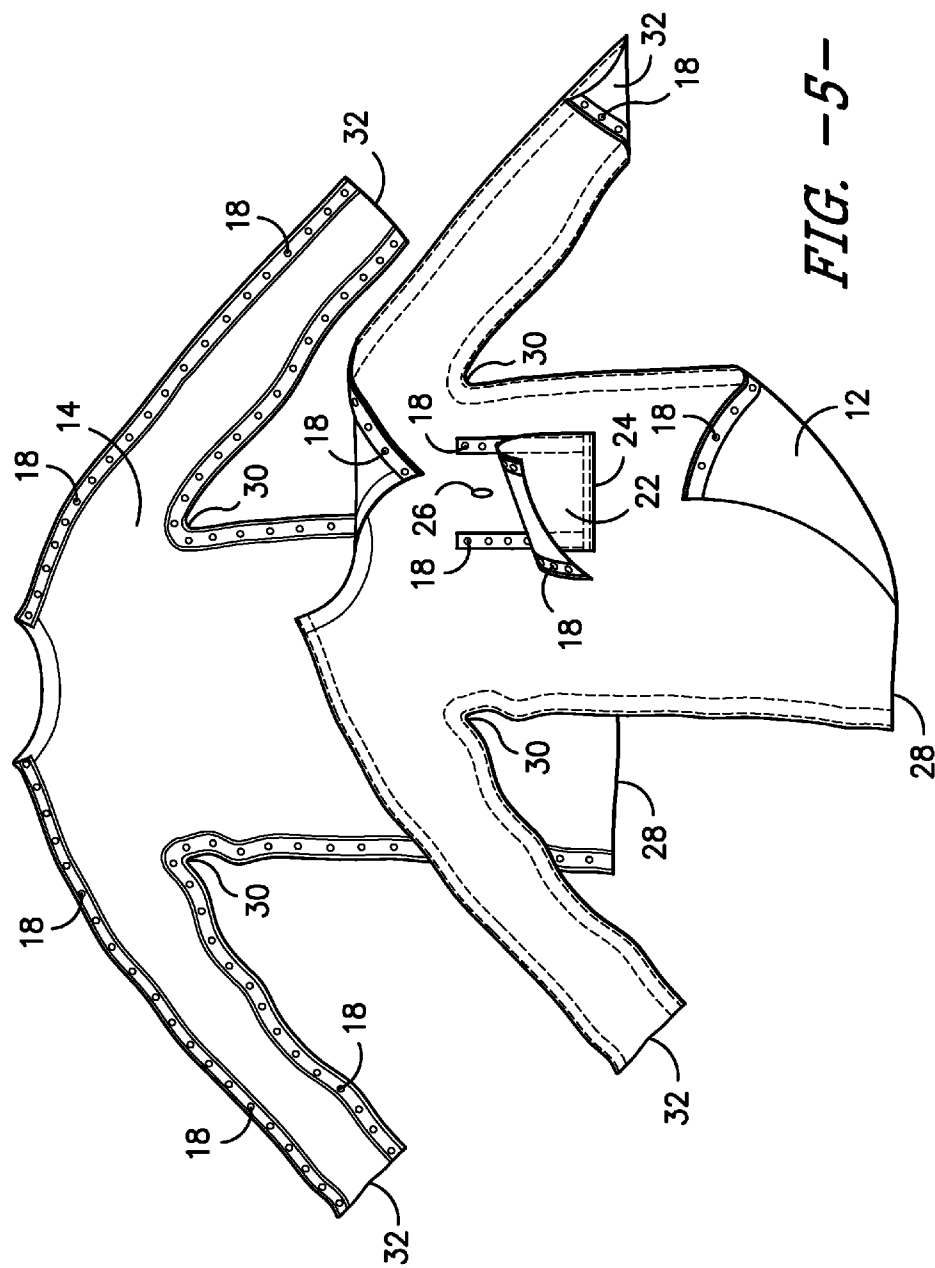


FIG. -4-



MEDICAL GARMENT

BACKGROUND OF THE INVENTION

[0001] In accordance with one aspect of the invention, a garment used for medical purposes is disclosed. The garment may include one or more slits or openings strategically positioned therein, so that medical equipment may be inserted through the slits, which provide access to a patient's body or skin. Oftentimes, patients in a hospital, and particularly patients who may be under the care of an intensive care unit of the hospital, are hooked up to various types of machines with tubes for carrying fluids, electrical monitors, and other types of medical equipment. Many times, patients wear hospital gowns, which are loosely draped over the patient's body with a large slit that is positioned on a backside of the gown, and the slit may be closed with ties that are intermittently positioned on either side of the slit. Because these hospital gowns are loosely fitting, tubes and wires that are attached to the patient may be positioned so that they simply pass under the front portion of the gown, through the sleeve of the gown, or through the slit at the back of the gown.

[0002] Unfortunately, hospital gowns are notoriously unsightly garments, and the slit in the rear portion thereof provides a line of sight to the patients back and buttocks, which may be a source of embarrassment to the patient. Another common complaint about hospital gowns is that they are paper-thin and loosely fitting, which causes patients to be cold.

[0003] Heretofore, efforts have been made to address these issues. For instance, U.S. Pat. No. 4,570,268 discloses a patient's garment which is suitable for various medical procedures, which will give the patient a sense of dignity and well-being, and which is of relatively low cost, high durability and common sizing. The patient's garment has a body portion and sleeves. The body portion includes a main panel which can be positioned to either the front or rear side of the patient and a pair of adjacent side panels which could normally be positioned on the other side of the patient. The outer side edges of the side panels are joined together in overlapping relationship when the garment is worn by the patient by a plurality of vertically spaced apart fasteners. The sleeves are sewn to the body portion, and the top of each sleeve is provided with an openable seam having adjacent mating edges which extend from the neck of the patient over the patient's shoulder and down along the arms. The mating edges can be held together in overlapping relationship by a plurality of spaced apart hook and loop fasteners. The fasteners can be opened to facilitate various hospital procedures such as X-rays, thorax and upper abdomen examinations, and I.V. therapy, and also permits a mother to nurse her baby without removal of the garment.

[0004] U.S. Pat. No. 5,611,087 describes a garment permitting ease of enclosing portions of a human body. The inventive device includes a front garment panel positionable over an anterior portion of a human body. A rear garment panel is positionable over a posterior portion of a human body and can be removably coupled at opposed lateral edges thereof to opposed lateral edges of the front garment panel to fully enclose the selected portion of the human body.

[0005] U.S. Pat. No. 6,216,271 discloses a garment for a hospital patient. The garment has a front piece with a first side, a first shoulder, a second side, and a second shoulder, and a back piece with a first edge and a second edge. The first edge of the back piece is sewn to the front piece at a first side

and first shoulder thereof. A plurality of fastening means in pairs is provided at a second side and a second shoulder, and the second edge. Two sleeves are respectively formed at the first and second shoulders. The sleeve at the first shoulder is sewn with the first edge of the second piece. The sleeve at the second side is sewn only with the front piece. An extending part is formed on the front piece and extends backwards from the second shoulder.

[0006] U.S. Pat. No. 7,305,716 describes a medical gown that includes separable portions that can be joined using color coded fasteners. The garment includes a pair of sleeve portions each having a separate seam extending from a neck opening to a distal end of the sleeve portion. Disposed along each of two opposing edges of separable seam are a plurality of mating, color-coded fasteners allowing a medical worker to easily secure the garment about a patient. The garment also includes a back flap that wraps around to partially overlay a front surface of the garment, and which is likewise secured with color-coded fasteners.

[0007] U.S. Pat. No. 7,987,524 discloses a long-sleeved, pullover-type upper body garment has a continuous slit, which runs up the side of the garment from the bottom of garment body to an arm pit, and downward along the underside of a sleeve, and terminates at a point intermediately along the length of the sleeve. The segment of the slit that is in the body of the garment is temporarily closeable using mating hook-and-loop fastener members that are attached to the body of the garment on opposite sides of the slit. The segment of the slit in the upper portion of the sleeve remains at all times "open", thereby allowing access to the middle and/or upper end of the wearer's arm for attachment of IV tubing or other medical lines. The circumference of the lower end (e.g., forearm portion) of the sleeve is neither separable or openable, thereby requiring that a wearer insert his/her hand through the lower portion of the sleeve. The garment can be donned or removed by a patient to whom mid-arm medical lines are attached, without necessitating detachment of the medical lines. Conversely, mid-arm medical lines can be attached to a wearer's arm without necessitating rolling up of the sleeve or removal of the garment.

[0008] U.S. Publication No. 2010/0242150 A1 describes a hospital gown having strategically positioned slits and fitted fasteners along the front, back and sides to allow preferential closing of the open seams and securing sensor connected leads or intravenous tubing to the patient. The hospital gown has a rear-opened garment, fasteners for closing the shoulder and sleeves sections, rear fasteners, plurality of strategically positioned slits for passing tubes and wire and plurality of pockets. The hospital gown may comprise a side-opened garment, shoulder fasteners, side fasteners, plurality of slits for passing tubes and wire and plurality of pockets. The preferred and alternative embodiments of the hospital gown feature one or more hook-and-loop strips or snaps strategically placed at the front, sides and, or back of the hospital gown.

[0009] U.S. Publication No. 2012/0151658 A1 discloses a medical garment formed of a central body region and two side regions with a pair of belts and a pair of fasteners for securing the garment around a patient's body is provided. The central body region may be worn on the back or front and may have a v-neck form. A waistband extends across the central body region and across one side region with a first belt secured at the junction of the central region and the second side region and extending to the outer edge of the first side region. The

second belt extends from the secured end of the first belt through the waistband across the central body region, the second belt exiting the waistband at the junction of the second side region and central body region. A first fixed tie is positioned at the outer edge of the second side region along the position of the waistband. A second fixed tie is secured to the inside of the waistband between the central body region and first side region. This garment design allows for easy gathering of fabric to present a secure and attractive body covering.

[0010] U.S. Publication No. 2012/0246796 describes a medical garment is provided that includes fabric fitted for an upper torso of a patient whereby a separable length is formed in the fabric with fastening strips fastened along the separable length, which may be used by the patient when dressing, undressing, bathing and during examinations by a healthcare professional.

[0011] Thus, it would be desirable to provide a garment that would provide access to a patient's skin and body, but which would also be warmer and more attractive to wear.

BRIEF SUMMARY OF THE INVENTION

[0012] In accordance with one aspect of the invention, a medical garment may include one or more slits or openings strategically positioned therein, so that medical equipment may be inserted through the slits. In one embodiment, the medical garment may include, attachments for removably closing such slits. The attachments may be snaps, hook and loop fasteners, or any suitable means. The attachments may allow the slits to be fully open, partially open, or fully closed, as desired. In one embodiment, the garment may have a slit that proceeds from the neck opening, or collar, of the garment down a portion of the sleeve following the shoulder which would allow for a larger neck hole. In another embodiment, the garment may have a slit that proceeds along the periphery, from the waist of the garment along the side seam up into the underarm and out along the bottom seam of the sleeve to the distal end of the sleeve which would allow access to the torso of an individual. In another embodiment a slit in the garment may proceed around the entire periphery to allow full separation of a front portion of the medical garment from a back portion. Having a front portion that is removable from a back portion allows a user to choose from different designs or configurations of front portions for the medical garment.

[0013] In one embodiment the garment may have a slit defined by the front portion of the garment near to where the medical equipment is desired to make contact with a user, allowing the medical equipment to pass through. This placement of the slit is useful because it removes some of the discomfort and inconvenience associated with having tubes and wires running underneath medical garments. For example, this may be useful when the person has a central venous access device, such as a non-tunneled or tunneled catheter, or other medical device that requires access to the chest of the user. In another embodiment, the slit may be defined by the back portion to accommodate access to the back of a user.

[0014] In one embodiment, the slit on the front or back portion of the medical garment may feature a pocket flap to cover it via attachment with the medical garment around the slit. A pocket flap may allow for storage of some of the tubes or wires of the medical devices when unconnected from the machines but still connected to the user. For example, a child with a tunneled central catheter may be able to have the catheter tube stored in the pocket created by attachment of the

pocket flap which helps keep the tube from being tangled, pulled, or coming into contact with a surface that may have potential infectious agents.

[0015] Further features of this invention will be apparent from the attached drawings and description of illustrative embodiments of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

[0016] These and other features, aspects, and advantages of the present invention will become better understood with regard to the following description, appended claims, and accompanying drawings where:

[0017] FIG. 1 is a front view of one embodiment of the medical garment with a slit featuring removable attachments proceeding from the collar of a garment down the shoulder and terminating at a point along the sleeve, a slit featuring removable attachments proceeding from the waist of the garment up to the underarm of the shirt and continuing out along the base of the sleeve to the end of the sleeve, and a slit defined by the front portion with a pocket flap that may cover the slit or open to allow access to the slit by featuring removable attachments;

[0018] FIG. 2 is a front view of one embodiment of the medical garment further with a larger opening in place of the slit on the front portion;

[0019] FIG. 3 is a front view of one embodiment of the medical garment in use with a tube exiting the slit defined by the front portion;

[0020] FIG. 4 is a front view of one embodiment of the medical garment in use with a tube stored in the pocket created by attachment of the pocket flap; and

[0021] FIG. 5 is an exploded view of one embodiment of the medical garment with a slit and attachment means around the periphery of the garment to allow full separation of a front portion of the medical garment from a back portion.

DETAILED DESCRIPTION OF THE INVENTION

[0022] In one embodiment of the medical garment 10, a shoulder slit 16 may extend from one side of the collar or neck opening to a shoulder portion, as shown in FIG. 1. This shoulder slit 16 may be opened in order to facilitate the process of putting the garment 10 onto the patient, particularly if the patient has bandages or medical equipment attached to his or her head or neck. Essentially, this shoulder slit 16 enlarges the neck opening to make it easier to place the garment 10 onto the patient. As shown in the FIG. 1, the shoulder slit 16 may include attachment means 18, such as snaps, hook and loop fasteners, or the like that may be used to close the shoulder slit 16, either partially or completely, as desired or necessary.

[0023] Other slits in the garment 10 may be provided, as well. In one embodiment, the garment 10 may be in the form of a long sleeve shirt, wherein one side of the shirt 10 includes a side-seam slit 20 from the waist 28 upwardly, extending through the underarm portion 30, and outwardly to the end of the sleeve 32, as shown in FIG. 1. This side-seam slit 20 may include attachment means 18, such as snaps, hook and loop fasteners, or the like, that serve to close the slit to the extent necessary. The side-seam slit 20 may be completely closed, or may be partially closed, thereby allowing just enough of an opening to run tubes, electrical wires, or the like through the inner-side slit 20, so that medical equipment may be attached

to the patient's body and further attached to medical equipment adjacent the patient's bed or wheelchair, for instance.

[0024] In another embodiment, multiple slits may be incorporated into the garment **10**. For instance, the side-seam slit **20** extending along the side of the garment **10**, up through the underarm **30** and out to the end of the sleeve **32** may be included, as well as the shoulder slit **16** described above. These slits **16**, **20** may be incorporated onto the same side of the garment **10**, or on opposed sides. Alternatively, these slits **16**, **20** may be incorporated into both sides, as desired.

[0025] Optionally, other strategically placed slits may be incorporated into the garment **10** in an area where medical tubes or other equipment is required. For instance, slits in the back portion or front portion of the garment **10** may be provided for tubes **40** that must be placed adjacent those areas on the body. As shown in FIG. **1**, a chest slit **26** may be used to allow access to a monitor, central venous access device, or other medical device in or to that area of the body. The chest slit **26** may be sized appropriately as necessary to accommodate the particular device in use. For example, a larger chest slit **26**, as shown in FIG. **2**, may be necessary for access to an implanted port catheter. A smaller chest slit **26**, as shown in FIG. **1** may be necessary for access to a tunneled central catheter that exits the body in the chest region. FIG. **3** shows a person with a catheter tube **40** exiting the chest slit **26** as described. The chest slit **26** may further be covered when not in use by a pocket flap **22**, as shown in FIG. **4**. The pocket flap **22** may connect to the garment by having a bottom seam **24**, sewn on, and the sides and top of the flap define attachment means **18** that mate with corresponding attachments **18** on the chest area of the garment **10**. The pocket flap **22** may further act as a storage site for a coiled up catheter tube **40**, as shown in FIG. **4**, by mating of the attachment means **18** of the pocket flap **22** with the corresponding means **18** on the garment **10**, such that the pocket flap **22** covers the chest slit **26** and coiled up catheter tube **40** that exits the chest slit **26**. This would help prevent the tube **40** from coming into contact with surfaces that may host germs that could cause infection.

[0026] Another embodiment may include slits around the entire periphery of the garment **10**, so that a front portion **12** of the garment **10** may be removably secured via attachments **18** to a back portion **14** of the garment **10**, as shown in FIG. **5**. In this way, it is possible to provide, for instance, interchangeable front portions **12** with a single back portions **14**, or vice versa. By way of example, a patient may have a single back portion **14** that may be affixed to several different front portions **12**, as desired. The front portions **12** may include different colors, designs, or graphic elements. If a patient likes several different musical bands or sports teams, or some combination thereof, then they can select a front portion **12** with the name or logo of their favorite band or team. Because the entire front portion **12** may be removed from the back portion **14**, and the slit is provided around the entire periphery, then medical tubes and the like may be inserted into the slit at any point around the periphery of the garment **10**.

[0027] It is contemplated that the garments **10** may be made from any desirable material. It is further contemplated that garments other than shirts may be included, as well. Pants having slits along a vertical side may be provided. Other slits, such as along the inseam of the pants, may be used, as well. Alternatively, one-piece garments, similar to pajamas or jumpsuits having slits may be provided, as well.

[0028] The garments **10** of the present invention may be initially manufactured with the slits described herein,

together with attachment means **18** such as snaps or hook and loop fasteners. Alternatively, slits may be cut into a pre-existing garment **10** after the manufacture thereof, and attachment means **18** may be subsequently provided along the slits, as desired.

[0029] Although the present invention has been described in considerable detail with reference to certain preferred versions thereof, other versions are possible. Therefore, the spirit and scope of the appended claims should not be limited to the description of the preferred versions contained herein. All features disclosed in this specification may be replaced by alternative features serving the same, equivalent or similar purpose, unless expressly stated otherwise. Thus, unless expressly stated otherwise, each feature disclosed is one example only of a generic series of equivalent or similar features.

What is claimed is:

1. A medical garment comprising:

A front portion connected to a back portion along the peripheries thereof, said medical garment defining a neck opening at the top, two sleeves for arms including a top seam and bottom seam with openings at the distal ends for hands, and a body section with opening at the waist for the torso;

said front portion being removably attached to said back portion on one side from said waist upwardly to a bottom portion of said sleeve; and

said front portion being removably attached to said back portion on one side from said neck opening downwardly to a shoulder portion.

2. The medical garment of claim 1 wherein said front portion is removably attached to said back portion on both sides from said neck opening downwardly to a shoulder portion.

3. The medical garment of claim 1 wherein said front portion is removably attached to said back portion on both sides from said waist upwardly to a bottom portion of said sleeve.

4. The medical garment of claim 2 wherein said front portion is removably attached to said back portion on both sides from said waist upwardly to a bottom portion of said sleeve.

5. The medical garment of claim 1 wherein said front portion is fully removable from said back portion about a periphery thereof.

6. The medical garment of claim 1 wherein said front portion is removably attached to said back portion along said bottom seam of said sleeve.

7. The medical garment of claim 1 wherein said front portion is removably attached to said back portion on both sides along said bottom seam of said sleeve.

8. The medical garment of claim 1, further including a slit defined by said front portion or said back portion to allow medical equipment requiring contact with a garment wearer's body to pass through.

9. The medical garment of claim 8 further including a pocket flap which is attached to said front portion or said back portion and covers said slit.

10. The medical garment of claim 9 wherein said pocket flap is removably attached to said front portion or said back portion.

11. The medical garment of claim 9, wherein said pocket flap includes a first side and a second side which are removably attached to said front portion or back portion.

12. The medical garment of claim **1**, wherein said front portion and said back portion are removably attached from said neck opening downwardly along said top seam to a distal end of said sleeve.

13. The medical garment of claim **1** wherein said front portion is removably attached to said back portion on both sides from said neck opening downwardly along said top seam to a distal end of said sleeve.

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