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(54) **WARMBAG**

(75) Inventors: **Joseph Light**, Winter Springs, FL (US); **Patrick Rabideau**, Winter Springs, FL (US)

Correspondence Address:
MILLEN, WHITE, ZELANO & BRANIGAN, P.C.
2200 CLARENDON BLVD., SUITE 1400
ARLINGTON, VA 22201 (US)

(73) Assignee: **Staywoods, LLC**, Winter Springs, FL (US)

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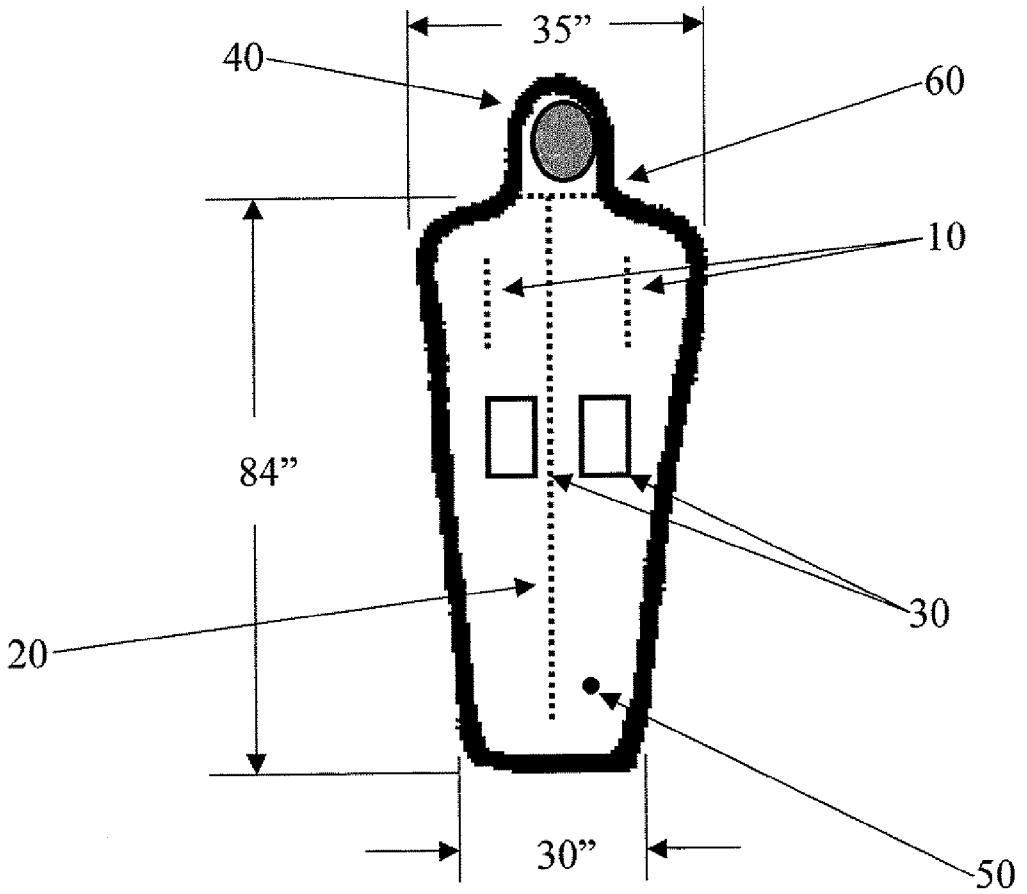
(57) **ABSTRACT**

A full-body enclosed garment for helping a person endure cold and inclement weather, for example during hunting, camping, or sports events.

Front View (outside)



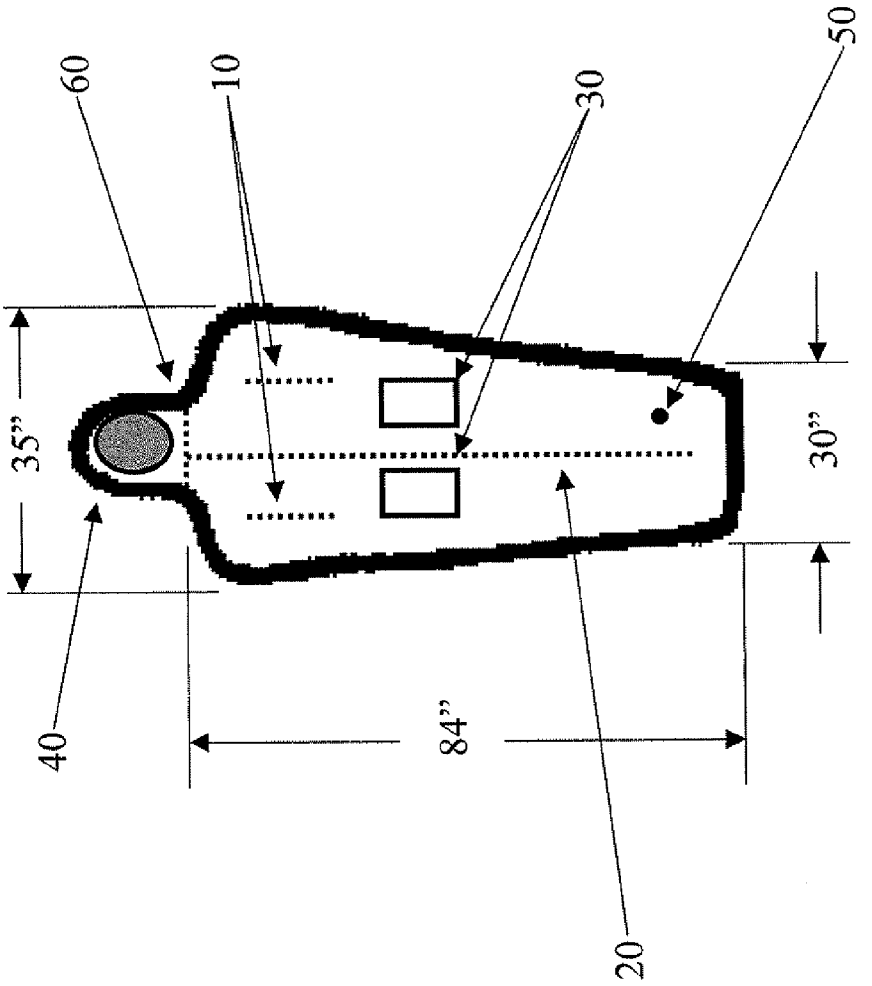


Figure 1: Front View (outside)

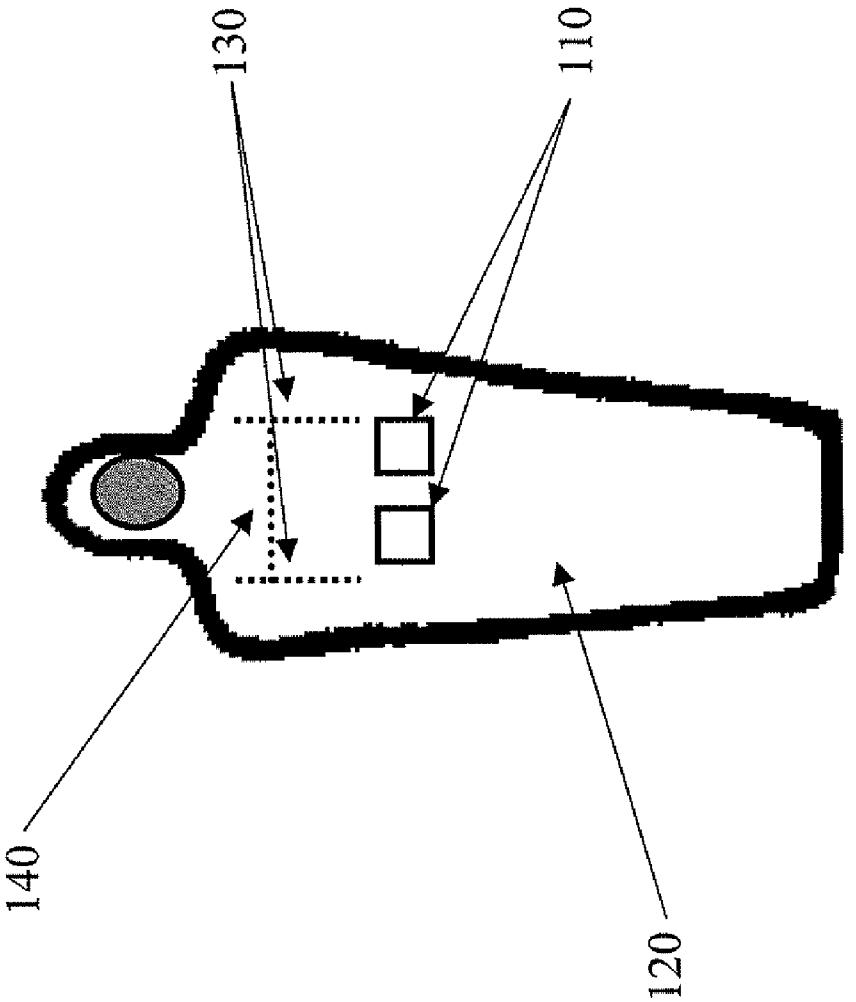


Figure 2: Interior View

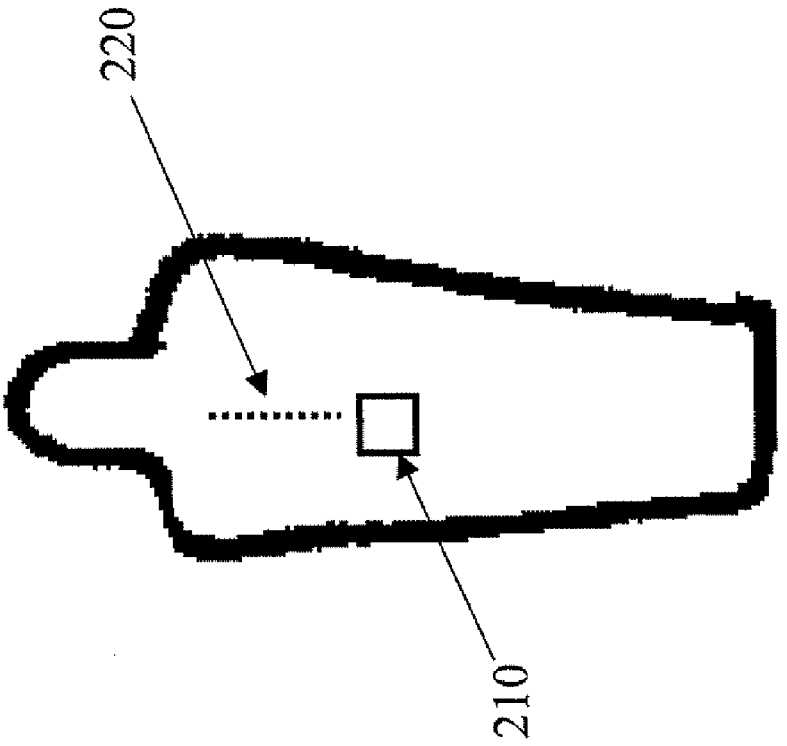
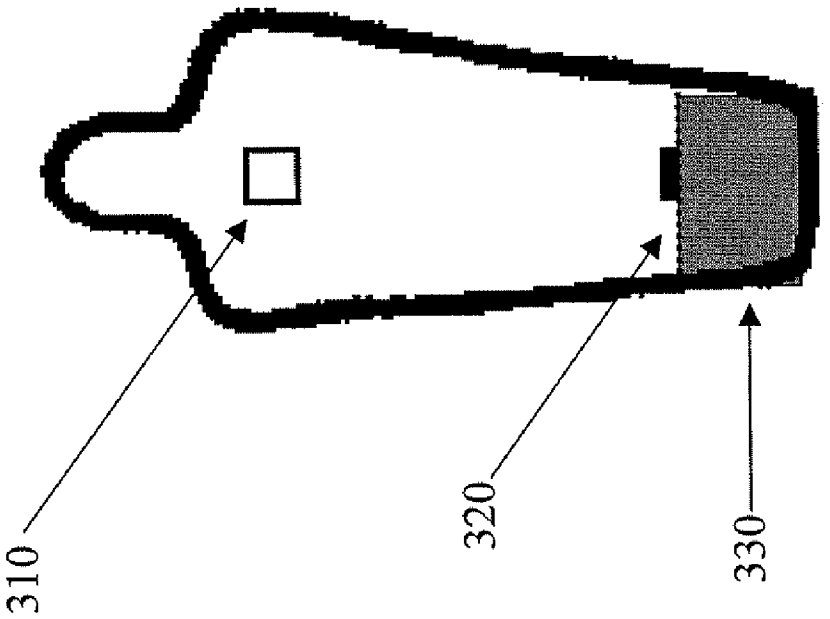


Figure 3: Side View

Figure 4: Rear View



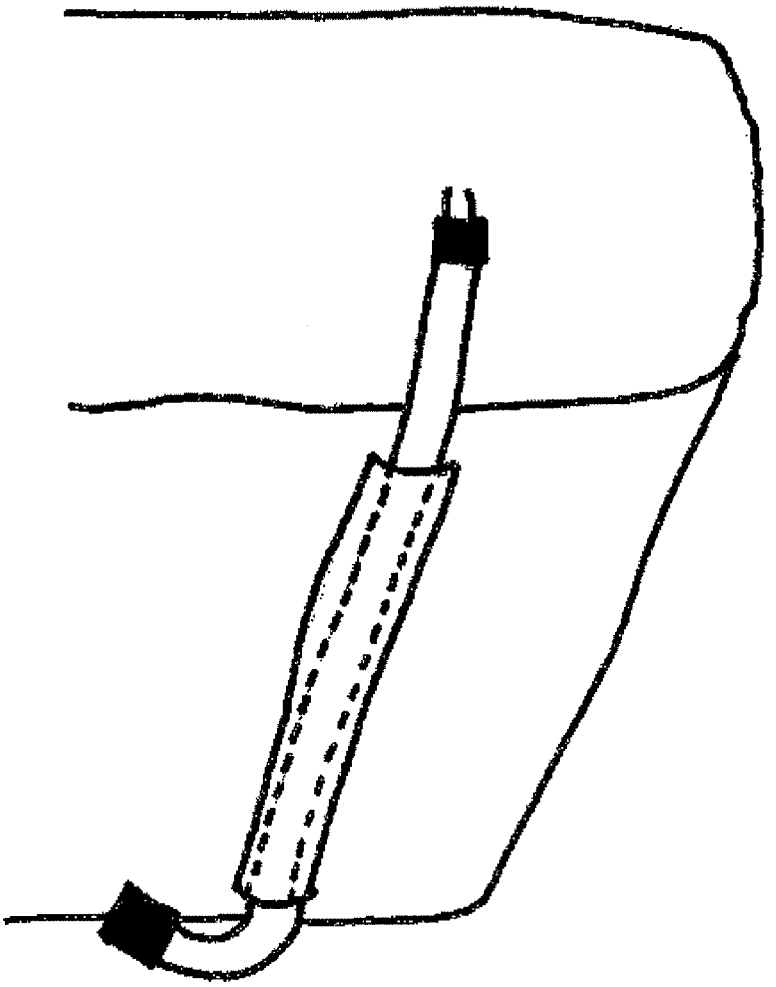


Figure 5: Bottom Portion

WARMBAG

[0001] The present invention relates to clothing articles useful for hunting and other outdoor activities in low temperatures. In a further aspect the present invention relates to waterproof, windproof, and thermal hunting garments. When outdoors for any type of activity, it is often desirable to dress warmly, and to shield oneself from the harsher effects of the environment, such as wind, rain, and cool air temperature, which is achieved by the present invention.

BRIEF DESCRIPTIONS OF THE DRAWINGS

[0002] FIG. **1** illustrates a front view of the garment of a present invention.

[0003] FIG. **2** illustrates an interior view of a garment of a present invention.

[0004] FIG. **3** illustrates a side view of a garment of a present invention.

[0005] FIG. **4** illustrates a rear view of a garment of a present invention.

[0006] FIG. **5** illustrates a bottom portion of a garment of a present invention.

[0007] FIG. **1** illustrates a front view of the garment. The garment's outer shell (**50**) is preferably made of laminated polyester, which provides cold temperature resistance, is waterproof or at least water resistant, and windproof. Other materials that are cold temperature resistant, waterproof or at least water-resistant or water-repellent, or windproof are also suitable for the garments outer shell. Such materials, for example, may be fleece, cotton, down, fur, leather, wool, denim, non-laminated polyester or any other type of polyester or synthetic fabric material, spandex, nylon, or natural fibers. The laminated polyester is also soft, durable, quiet, and holds the camouflage pattern well. To hold the camouflage pattern, in this context, is defined as having color(s) or a camouflage pattern that is bold and vibrant, which enhances the three dimensional functionality of the pattern. In another embodiment, the garment's outer shell (**50**) may be one solid color, such as black or white. In another embodiment, the garment's outer shell (**50**) may contain an artistic design or logo such as a graphic design or a sports logo, and may be of various colors, e.g., of sports teams or of designers, e.g., different versions of the garment are possible, e.g., a hunting version, a stadium version, a camping version, etc.

[0008] A heavy-duty two-way optionally plastic zipper (**20**) is located on the front of the garment and begins at the neckline and continues down the garment until an opening is created sufficient for entry into the garment. The two-way zipper (**20**), in an embodiment, does not extend all the way to the bottom of the garment, and in some embodiments, the length of the zippered to non-zipper equipped ratio is 12:1 to 15:6. In another embodiment, the two-way zipper (**20**) extends to the bottom of the front of the garment or ends several inches, e.g., 2, 3, 4, 5, 6, or 7 inches, above the bottom of the garment. In another embodiment, the two-way zipper (**20**) extends the entire length of the garments front, bottom, and optionally the rear side, resulting in the garment being able to be separated into two pieces upon full unzipping. The zipper is preferably configured to be operable from both the outside and the inside of the garment. By two-way zipper, what is described is a zipper that can be opened or closed independently from the top down or from the bottom up completely or partially in either direction. This provides the option for a user of the garment to open the garment from the top, for example, to climb into the garment, and also to open the bottom of the garment only thereby providing the ability for the user to step out of the garment while keeping the rest of the garment on the upper part of the body and move around freely by walking.

[0009] The two-way zipper (**20**), in some embodiments, may be replaced with other sealing mechanisms, for example, by magnets sown into the fabric, magnetic strips, Velcro, button snaps, a zipper that is not a two-way zipper, etc., or a combination thereof, including a zipper in combination with button snaps, or magnets in combination with button snaps.

[0010] In some embodiments, the garment also contains exterior (**30**) and/or interior (**110**) pockets. Smaller pockets (**110**) are optionally located in the interior of the garment and allow for the placement of hand warmers, which can optionally be air activated charcoal hand warmers. Pockets can also optionally be used to store other items, such as hunting gear, camping gear, sports gear, and personal items. In some embodiments, the outer front face (**50**) of the garment has one or more exterior pockets (**30**) which are sealable in any way disclosed herein, for example, with heavy-duty plastic zippers, magnets, Velcro, snap buttons, etc. The size of the pockets (**30**, **110**, **210**) on the garment range from 2×2 inches to 18×18 inches such as 3×3, 4×4, 5×5, 6×6, 7×7, 8×8, 9×9, 10×10, 11×11, 12×12, 13×13, 14×14, 15×15, 16×16, or 17×17. Pockets (**30**, **110**, **210**) are not required to be square in shape and unequal combinations within the range are acceptable, such as 6×8, 8×6, 6×4, 10×6, 6,10, 8×10, 10×8, 8×4, 4×8, 5×6, 6×5, 8×5, 5×8, 5×9, or 9×5. These specific measurements are just some examples of possible pocket (**30**, **110**, **210**) sizes; other sizes within the range are also acceptable. In other embodiments there is no outer pocket. In some embodiments the pockets (**30**, **110**, **210**) have a liner, which can be the same liner as the interior (**120**) of the garment or made of a different material, e.g., materials disclosed herein.

[0011] The garment optionally has a detachable hood (**40**) to cover a person's head and is optionally attached by a button, snap, zipper, magnets sown into the fabric or other fasteners capable of securing the coverall to the garment. The neckline contains a tightening mechanism (**60**) that allows for comfortable adjustment. The tightening mechanism (**60**) may optionally be a drawstring, which may be made from elastic, rope, rubber or nylon materials.

[0012] The outer surface (**50**) of the garment is typically covered in a camouflaged pattern. The camouflaged pattern can be changed to suit conditions by covering the garment with a coverall with alternative camouflage patterns. The coverall covers the entire outer portion of the garment and has different patterns of camouflage, colors, images, or logos displayed on it. The garment is capable of securing the coverall with buttons, snaps, or other fasteners capable of securing the coverall to the garment. Said coverall adds an additional layer of weather resistance. The coverall can optionally be made of the same material as the outer portion of the garment or can be of other material.

[0013] An advantage of certain embodiments of the garment is that it has no easily discernible outline, e.g., each leg of a hunter in preferred embodiments is not separately recognizable inside the bag, and as such, game animals are less likely to identify the outline of a hunter inside the garment. In an embodiment, the zipper (**20**) is not operable such that the lower part of the garment is separable into two separate closable compartments, each containing a leg of a hunter, as

disclosed in U.S. Pat. No. 4,507,805 (the disclosure of which is incorporated herein by reference for the disclosure of the embodiments wherein the lower part of the garment disclosed therein is separable to form two independent leg covers).

[0014] FIG. **2** illustrates an interior view of the garment. In one embodiment, the interior of the garment is lined with a black fleece fabric (**120**), which, may also be other colors or patterns, wherein the garment optionally incorporates scent control, for example, silver ions that are bonded into the fleece fabric. The silver ion bonded fleece fabric reduces the amount of scent expelled into the air, which reduces the probability of detection by animals. Other materials may be used as the lining, which may be modified with scent control, for example, may be bonded with the silver ions. Such materials, for example, may be polyester, cotton, down, fur, leather, wool, denim, spandex, nylon, or natural fibers. Fabric that has been bonded with silver ions, copper ions, quat silane, triclosan, PHMB, Zinc pyrithione, activated carbon, or activated charcoal to control the production of and the escaping of body scent is known for its antimicrobial and odor absorbing properties. See U.S. Pat. No. 6,946,433; U.S. Pat. No. 5,561,167; U.S. Pat. App. No. 2009/0246258; U.S. Pat. No. 6,702,951; U.S. Pat. No. 6,000,057; See also Ilić, Vesna. "The influence of silver content on antimicrobial activity and color of cotton fabrics functionalized with Ag nanoparticles" Carbohydrate Polymers Vol. 78, Issue. 3, pg. 64-569 doi:10.1016/j.carbpol.2009.05.015. (Oct. 15, 2009); Rai, Mahendra. "Silver nanoparticles as a new generation of antimicrobials" Biotechnology Advances Vol. 27, Issue 1, pg. 76-83. doi:10.1016/j.biotechadv.2008.09.002 (January-February 2009).; Microban® products at (http://www.microban.com/partners/Technology/). All these references are incorporated herein by reference for their disclosures of antimicrobial and/or scent or odor control of fabric materials and are options for use in the invention disclosed herein.

[0015] FIG. **3** shows a side view of the garment. The garment contains two sealable openings (**10**,**130**,**220**), which when closed allow for full enclosure of a person's body and when open allow for the use of a person's arms while still providing an enclosed warm space for the rest of the body relative to the outside air. In this context, closed is defined as sealed closed, for example with a zipper, which is preferably configured to be operable from both the outside and the inside of the garment, and which may be in some embodiments a two-way zipper, magnetic strips, magnets sown into the fabric, hook and loop fasteners, a zip locking mechanism (for example, as disclosed in U.S. Pat. No. 6,826,808 which is incorporated by reference herein for its disclosure of the zip locking mechanism), static cling vinyl film (for example, as disclosed in U.S. Pat. No. 4,905,298 which is incorporated herein by reference for its disclosure of static cling vinyl film), snaps, or a combination thereof, and does not include the mere closure of the opening without anything sealing it closed. In some embodiments the sealable openings (**10**,**130**, **220**) on the armholes are approximately 12 to 18 inches long, for example 13, 14, 15, 16, or 17 inches long. In the embodiments using a zipper, the zippers are preferably heavy duty plastic, which make less noise when operated relative to metal zippers. However, the zippers may optionally be made from non-heavy duty plastic materials, such as metal. In preferred embodiments using a zippers, the zippers are two sided, meaning they can be operated from both the inside or the outside of the garment. In the embodiments using zippers, the zippers are connected (**140**) inside by a zipline. The zipline allows for simultaneous operation of both zippers while minimizing the outward appearance of movement. The zipline (**140**) is a connection between the two zippers and can optionally be made from rope, string, wire, strapping, cord, rubber, plastic, or metal.

[0016] Exterior side pocket(s) (**210**) that can optionally be used to carry items or warm hands when not inside the garment. The outer pockets can be placed anywhere on the garment. For example, pockets could be placed on each side at around waist height or about midway down the garment to allow for pockets that can be used for warming hands, or pockets could be placed on the upper front part of the garment allowing for storage of materials, e.g., a scope, bullets, etc. All pockets can be sealable, e.g., by a zipper, magnets, Velcro, snap buttons, etc., or a combination thereof.

[0017] FIG. **4** shows a rear view of the garment. The non-zippered portion (**50**,**330**) of the garment can optionally be folded and fastened (**320**) to the back of the garment to create an opening at the bottom of the garment and allow for walking. In some embodiments a strap, clip, buckle, hook and loop fastener, or magnets, can be used for fastening (**20**) after folding to the back of the garment.

[0018] FIG. **5** shows an embodiment having a strap or belt with a buckle or plastic snap buckle attached at the bottom portion of the garment. This attachment can be permanent, e.g., sown onto the garment or affixed in any other way, for example, a horizontal sleeve may be sown onto the back of the garment at a bottom portion thereof, which is capable of containing the belt or strap along with any optional buckle, and which sleeve allows the extraction of the belt or strap from said sleeve, for example, at each end of the sleeve a part of the belt or strap could be extracted. The sleeve may be closable at each end, for example, by Velcro, or snaps, or zippers so that when the belt is not in use, it can be safely tucked away avoiding the belt or strap to become a tripping hazard. A further option is to attach the belt or strap by other less permanent ways, e.g., by snap buttons, a snap buckle or clips.

[0019] This belt or strap provides for the option for one to secure the bottom part of the garment, for example, to the waist of the person using the garment when the bottom portion is unzipped so that the user could step out of the bottom of the garment to be able to walk, thereby avoiding the bottom part of the garment being dragged on the ground behind the user. For example, a user of the garment could unzip the bottom part of the garment, e.g., by zipping up from the bottom with the two way zipper (**20**), step out of the garment, while the top part of the garment remains on the user to keep warm, but the bottom part is opened to free the user's legs. The bottom part of the garment could then be folded back and up behind the user whereby the strap or belt would reach about waist height. The strap or belt then could be pulled forward, e.g., from each end thereof, and buckled or tied around the waist of the user, thereby securing the bottom part of the garment to the back of the user.

[0020] The zippered portions (**10**,**30**,**220**) of the garment may be optionally covered with fabric that is similar or identical to the fabric on the rest of the garment and which is optionally secured by button fasteners. In an embodiment, the zippers are protected and disguised by an overlapping fabric cover which can be provided with snaps or magnets to secure said overlapping fabric cover over the zippers.

[0021] In some embodiments, the garment has a slot (**310**) on the upper back portion, which is capable of accepting a safety harness. Said slot is optionally about ½×3-inches.

[0022] The full-body enclosed garment provides sufficient space for an adult human. FIG. **1** shows the dimensions of the preferred embodiment. The general dimensions of said full-body enclosed garment are 48 inches to 90 inches by 20 inches to 40 inches. The width at the shoulders and feet may differ independently within said range. In one embodiment, the full-body enclosed garment is 84 inches in length (from shoulders to feet), 35 inches in width at the shoulders, and 30 inches in width at the feet. In another embodiment, the full-body enclosed garment is 72 inches in length (from shoulders to feet), 35 inches in width at the shoulders, and 30 inches in width at the feet. The full-body enclosed garment weighs from 2 to 50 pounds depending on the amount and type of material used, for example, 4 pounds, 4.5 pounds, 5 pounds, 6 pounds, etc. Typically lighter weight may be preferred to allow for less of an effort to carry the garment. However, higher weight bags are also envisioned. The bag can have a container that reduces the volume of space occupied by the full body enclosed garment and allows for easy transport, for example, a compression bag.

[0023] A further embodiment of the current invention is a garment for helping a person endure cold and inclement weather comprising a full-body enclosed garment with an attachable hood having an interior compartment substantially the same in width throughout its entire length and having a neckline through which a person's head is capable of protruding; and arm access holes on each side of said garment that are capable of being opened and closed or; fabric that has been bonded with an antimicrobial agent(s) and/or odor absorbing agent such as silver ions, copper ions, quat silane, triclosan, PHMB, Zinc pyrithione, activated carbon, or activated charcoal to control the production of and the escaping of body scent that serves as a lining inside the full-body bag-structured garment.

[0024] Another embodiment of the current invention is a full-body enclosed garment wherein the outer material is waterproof, windproof, and cold temperature resistant. In another embodiment of the current invention said garment's outer material is laminated polyester. In another embodiment of the current invention the arm access holes are zippered openings on each side. In another embodiment of the current invention the zippered openings (**10**,**130**,**220**) are approximately 12 inches long to 18 inches long for example 14 inches or 16 inches long. In another embodiment of the current invention the two-way zippers are connected (**140**) inside the garment allowing for simultaneous operation of both two-way zippers.

[0025] In another embodiment, the fabric lining has been bonded with an antimicrobial agent(s) and/or odor absorbing agent such as silver ions, copper ions, quat silane, triclosan, PHMB, Zinc pyrithione, activated carbon, or activated charcoal to control the production of and the escaping of body scent.fabric lining (**120**). In another embodiment of the current invention the full-body enclosed garment contains exterior or interior pockets (**30**,**110**,**210**). In another embodiment of the current invention at least one interior pocket (**110**) is smaller than the other pockets on the garment and capable of holding a hand warmer.

[0026] In another embodiment of the current invention a neckline (**60**) of the full-body enclosed garment is adjustable. In another embodiment of the current invention said neckline (**60**) is adjustable by a drawstring.

[0027] In another embodiment of the current invention, the full-body enclosed garment has a two-way zipper (**20**) located on its front that extends less than its full length. In a preferred embodiment no part of this two-way zipper is located on the back of the garment. In another embodiment of the current invention the lengths of the zippered portion (**20**) to the non-zippered portion (**50**,**330**) have a ratio from 12:1 to 15:6. In another embodiment of the current invention the two-way zipper (**20**) extends all but 6 inches to 24 inches of the length of said garment. In another embodiment of the current invention, the non-zippered portion (**50**,**330**) is capable of folding and fastening (**320**) to the back of said garment so as to create an opening at the bottom of said garment. In another embodiment of the current invention, said non-zippered portion (**50**, **330**) is fastened (**320**) to the back of the garment by a strap, clip, buckle, or hook and loop fastener, or a strap is used around the waist of the user that secures the bottom portion of the garment to the back of the user at around waist height.

[0028] In another embodiment of the current invention, a hood (**40**) is attached with button fasteners (**60**). However, other attachment mechanisms are also possible, e.g., magnets sown into the fabric, magnetic strips, buttons, zippers, snaps, Velcro, etc. Another embodiment of the current invention has a slot (**310**) to accommodate a safety harness in the upper back portion of the full body bag. In another embodiment of the current invention, a coverall is secured to said garment's outer portion with fasteners.

[0029] In a further embodiment, the garment may be treated with a fire retardant material.

[0030] Without further elaboration, it is believed that one skilled in the art, can, using the preceding description, utilize the present invention to its fullest extent. The preceding preferred specific embodiments are, therefore, to be construed as merely illustrative, and not limitative of the remainder of the disclosure in any way whatsoever.

[0031] The entire disclosures of all applications, patents and publications, cited herein and of corresponding U.S. Provisional Application Ser. No. 61/115,475, filed Nov. 17, 2008 are incorporated by reference herein.

From the foregoing description, one skilled in the art can easily ascertain the essential characteristics of this invention and, without departing from the spirit and scope thereof, can make various changes and modifications of the invention to adapt it to various usages and conditions.

What is claimed is:

1. A garment for helping a person endure cold and inclement weather comprising

(a) a full-body enclosed garment with an optional hood, which is optionally detachable, having an interior compartment and having a neckline at a top portion thereof through which a person's head is capable of protruding, and one or more of (b**1**) to (b**7**)

(b**1**) arm access holes on each side of said garment that are each capable of being opened and sealed closed by zippers optionally simultaneously by a zipline connecting the zippers, and/or

(b**2**) arm access holes on each side of said garment that are each capable of being opened and sealed closed by magnets affixed to or sown into the garment, and/or (b**3**) a fabric liner in the interior of the garment that has been bonded with an anti-microbial agent and/or odor absorbing agent, and/or

(b**4**) a belt or strap attached to a bottom portion of the garment which is capable of being fastened around the waist of a person upon the bottom portion of the garment being folded back and lifted up to about waist height, and/or

(b**5**) a fastener, button, clip, belt, strap, Velcro, magnet, magnetic strip, snap, or snap button, attached to a bottom portion of the garment which is capable of being attached to the back of the garment at a point above said bottom portion of the garment upon the bottom portion of the garment being folded back and lifted up, and/or

(b**6**) a two-way zipper extending through a front portion of the garment that is capable of allowing a person to enter the garment and is capable of being unzipped partially from a bottom portion of the garment, and/or

(b**7**) an opening on the front portion of the garment that is capable of allowing a person to enter the garment which opening is capable of being sealed by magnets affixed to or sown into the garment.

2. The garment of claim **1**, wherein the full-body bag-structured garment's outer material is waterproof, windproof, and cold temperature resistant.

3. The garment of claim **1**, wherein the outer material is laminated polyester.

4. The garment of claim **1**, wherein the arm access holes are closable.

5. The garment of claim **1**, wherein the arm access holes are zippered openings on each side or closable by magnets.

6. The gal went of claim **5**, wherein the zippered openings are approximately 12 inches long to 18 inches long.

7. The garment of claim **5**, wherein the zippers on the zippered openings are connected by a zipline inside the garment allowing for simultaneous operation of both zippers.

8. The garment of claim **1**, wherein the antimicrobial agent (s) and/or odor absorbing agent(s) are silver ions, copper ions, quat silane, triclosan, PHMB, Zinc pyrithione, activated carbon, or activated charcoal.

9. The garment of claim **1**, wherein the full-body enclosed garment contains exterior or interior pockets.

10. The garment of claim **9**, wherein at least one interior pocket is smaller than other pockets on the garment and capable of holding a hand warmer.

11. The garment of claim **1**, wherein a neckline of the full-body enclosed garment is adjustable.

12. The garment of claim **1**, wherein the full-body enclosed garment has a two-way zipper, magnetic strips, magnets sown into the fabric, and/or hook and loop fastener, located on its front that extends less than its full length.

13. The garment of claim **1**, wherein a bottom portion of the garment is capable of folding and fastening to the back of said garment.

14. The garment of claim **13**, wherein said bottom portion is fastened to the back of the garment by a strap, clip, belt, Velcro, magnet, snap button, buckle, or hook and loop fastener.

15. The garment of claim **1**, wherein a hood is attached with one or more fasteners, magnets, zipper, Velcro, buttons, button snaps, or a combination thereof.

16. The garment of claim **1**, wherein a coverall is secured to said garment's outer portion with one or more fasteners, magnets, zipper, Velcro, buttons, button snaps, or a combination thereof.

17. The garment of claim **1**, which contains two or more of (b**1**) to (b**7**).

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