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(54) **VEST GARMENT WITH MULTI-PURPOSE,  
UNIVERSAL HYDRATION SYSTEM  
CARRIER COMPARTMENT**

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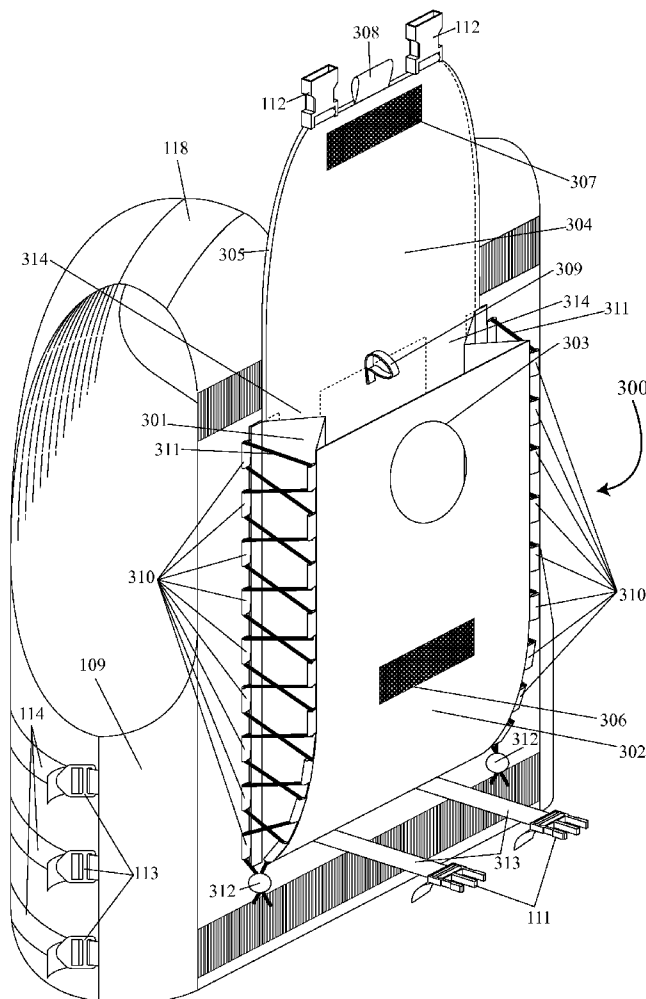
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**Related U.S. Application Data**

(60) Provisional application No. 62/078,619, filed on Nov. 12, 2014.

(57) **ABSTRACT**

A vest garment with multi-purpose, universal hydration carrier system compartment: adapted and configured to have the functionality of a vest with an incorporated load carrying compartment primarily but not limited for containment and support of a personal hydration carrier system. The inside and outside of the front portions comprise but are not limited to at least one load carrying compartment or related attachment means. The multi-purpose load carrying compartment is attached to and occupies a surface area greater than fifty percent of the back panel which may then act as a universal carrier for personal hydration carrier systems or as a storage compartment for various paraphernalia.



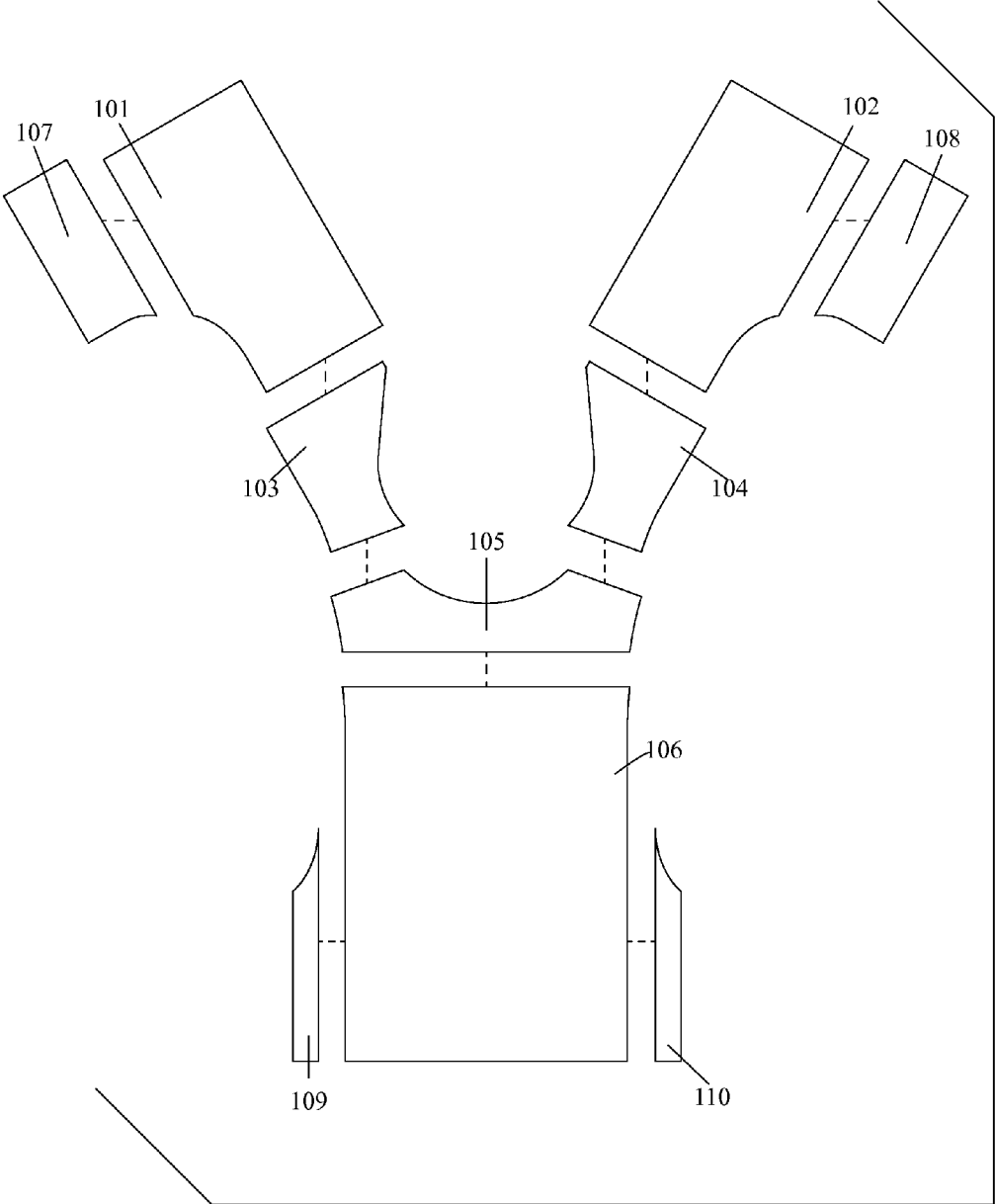


FIG. 1

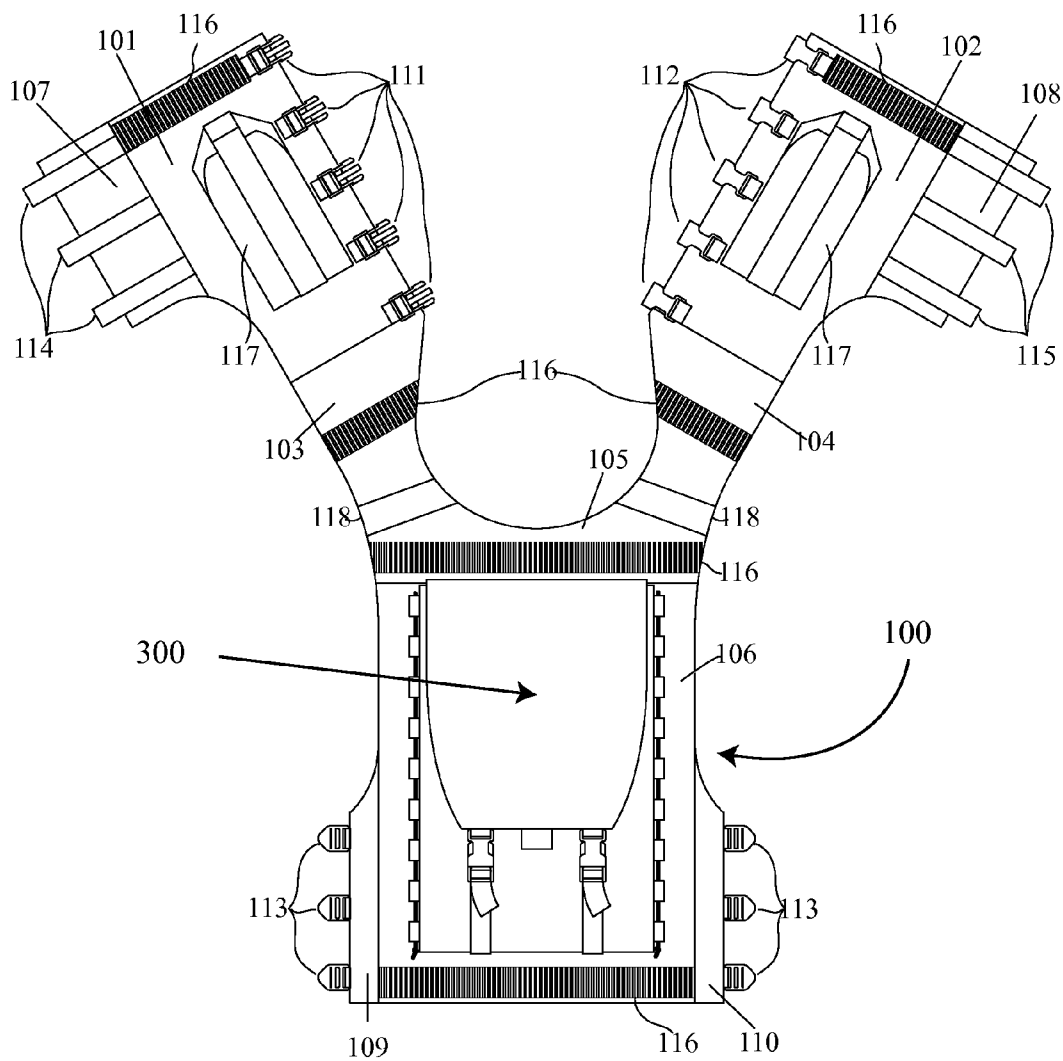


FIG. 2

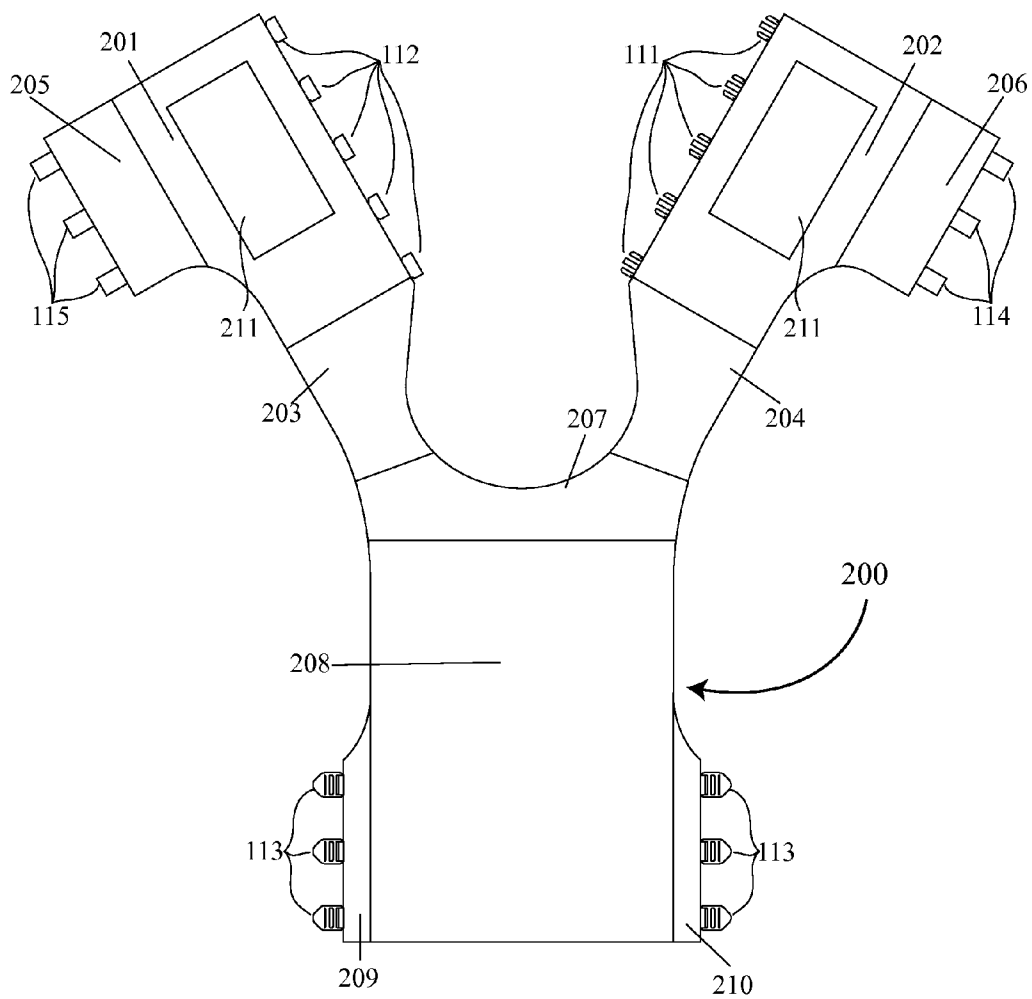


FIG. 3

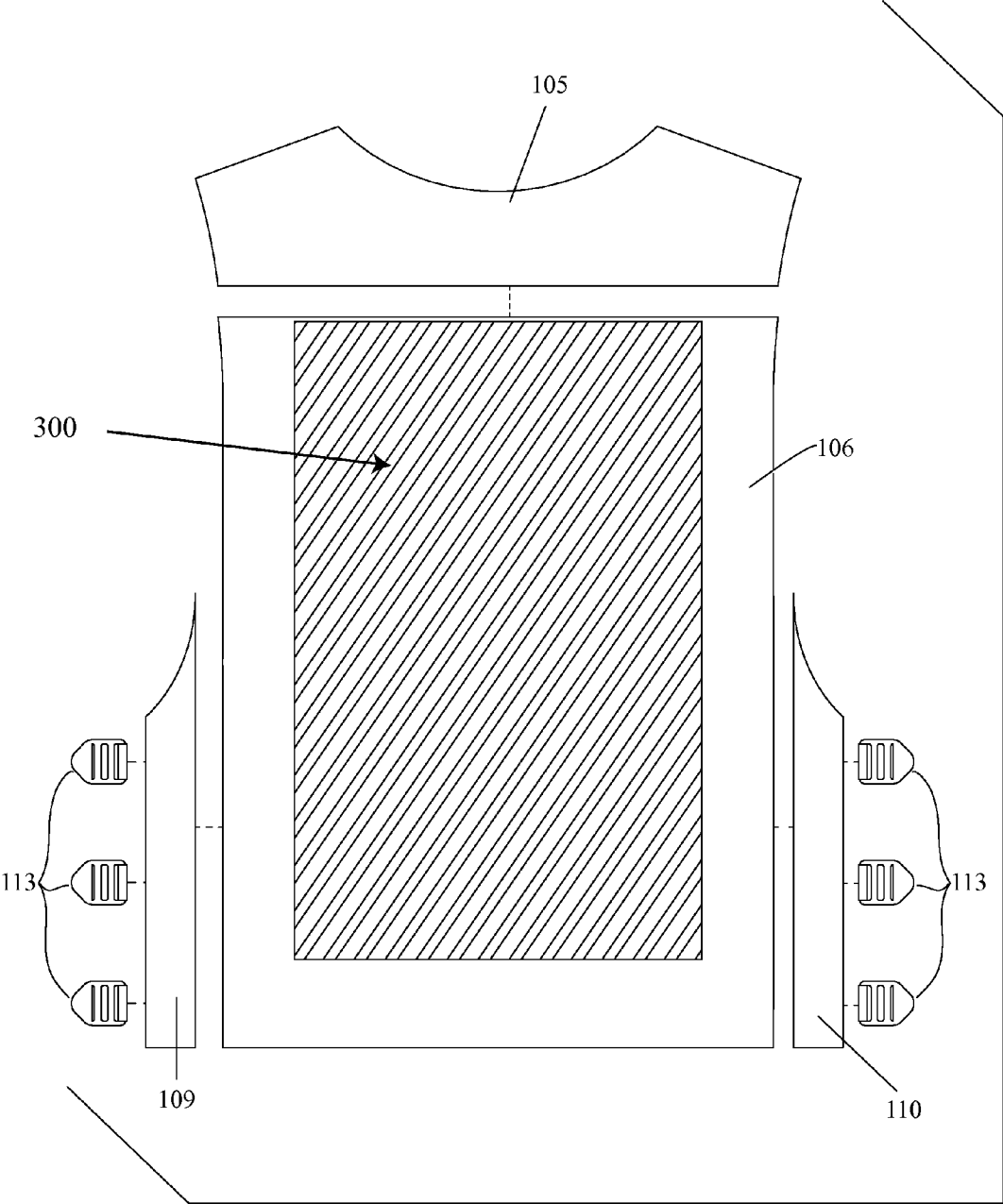


FIG. 4

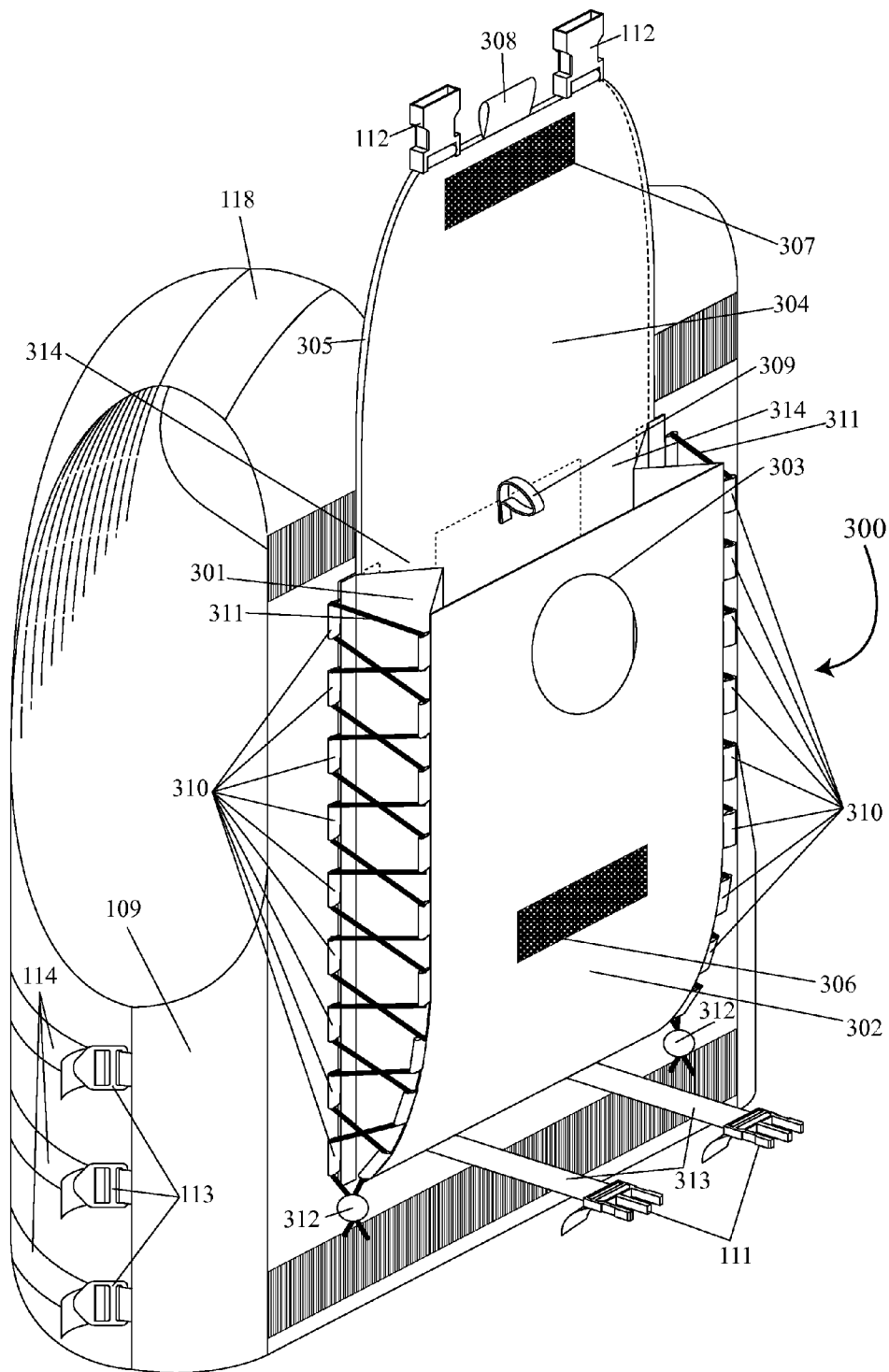


FIG. 5

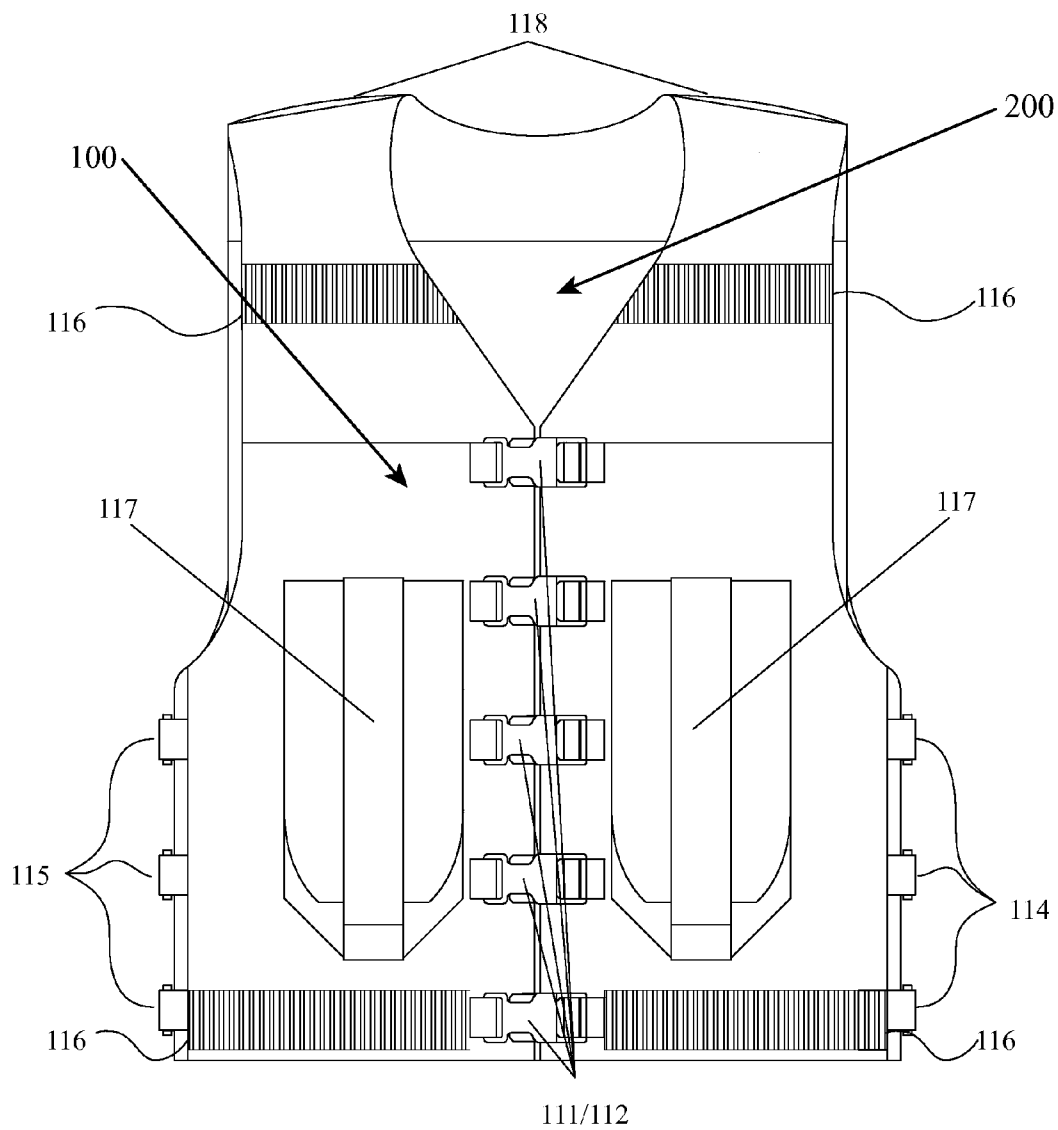


FIG. 6

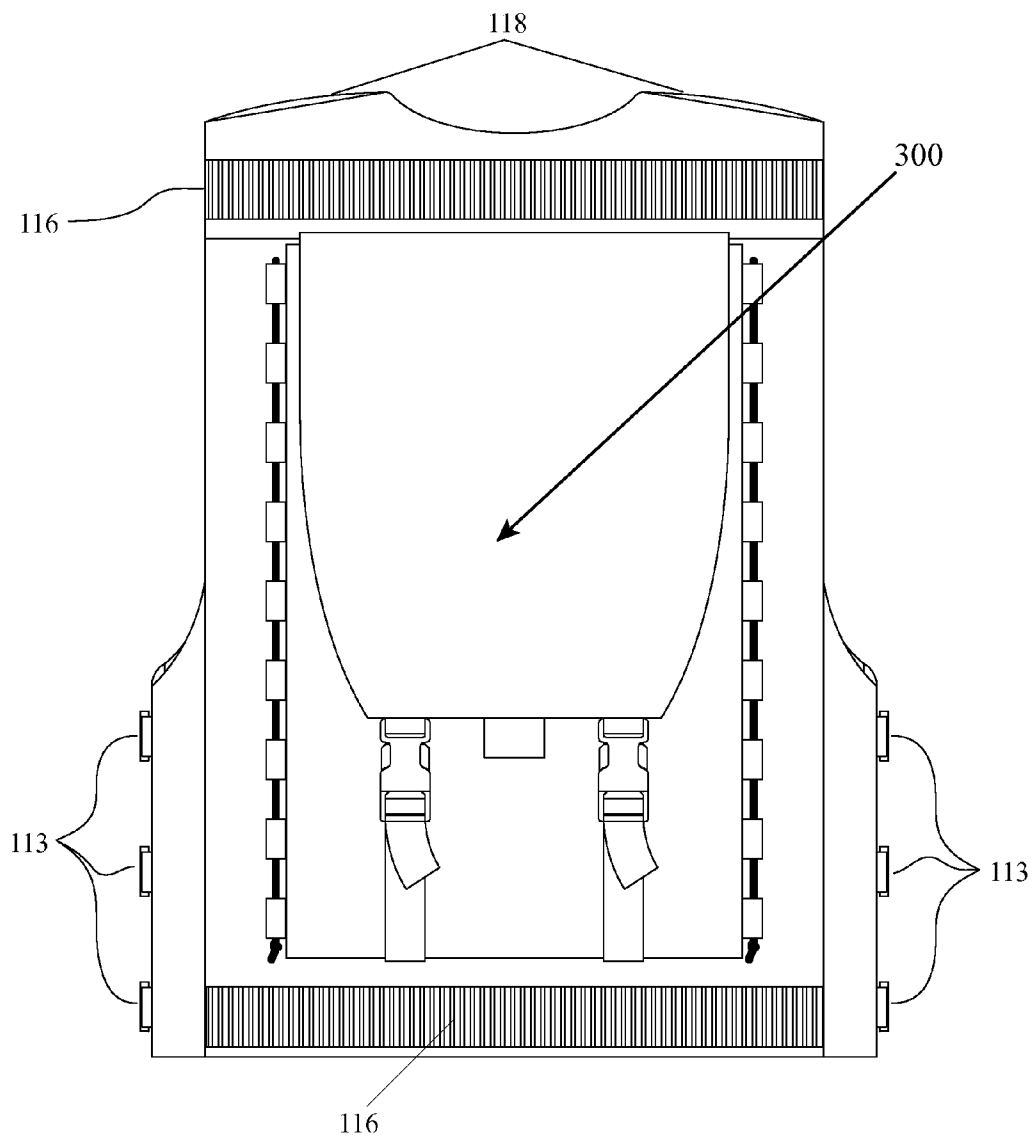


FIG. 7

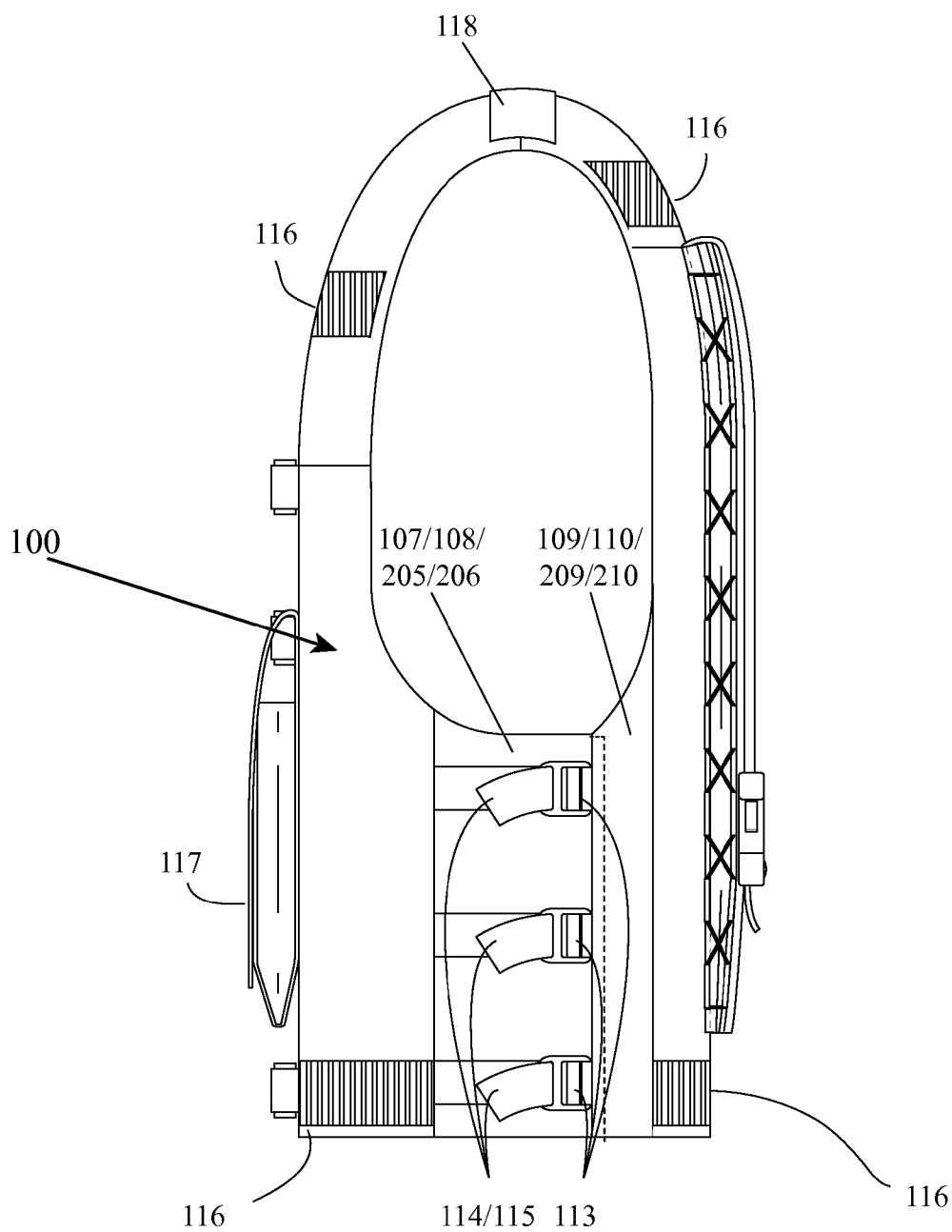


FIG. 8

**VEST GARMENT WITH MULTI-PURPOSE,  
UNIVERSAL HYDRATION SYSTEM  
CARRIER COMPARTMENT**

**CROSS-REFERENCE TO RELATED  
APPLICATIONS**

**[0001]** This application claims the benefit of U.S. Provisional Application No. 62/078,619, filed Nov. 12, 2014.

**STATEMENT REGARDING FEDERALLY  
SPONSORED RESEARCH OR DEVELOPMENT**

**[0002]** Not Applicable

**REFERENCE TO SEQUENCE LISTING, A  
TABLE, OR A COMPUTER PROGRAM LISTING  
COMPACT DISK APPENDIX**

**[0003]** Not Applicable

**BACKGROUND OF INVENTION**

**[0004]** The present invention generally relates to the field of garments. Specifically, it relates to vests and, more particularly, to vest structures with features of a backpack and a hydration system carrier.

**[0005]** Vests are a garment type commonly known and used. In many configurations where the vest is capable of carrying equipment related to the wearer's profession or hobby, the standard means of load carrying compartments take the form of pockets or pouches, both fixed to the garment or removably attached through a commonly known means. Yet in certain applications where a person may wish to have a large hydration carrier system, typically a standalone backpack system is required in addition to the vest garment. To provide the benefit of the hydration carrier system without the need for a secondary article, it would be desirable to have a system in which a vest garment is combined with a hydration carrier system compartment.

**[0006]** To ensure the maximum of benefit for the wearer the compartment for the hydration system carrier should additionally be capable of carrying and storing other items when the hydration carrier system is not in use. In previously known vest garments of this type, the combination of vest garment with a hydration carrier system compartment is prioritized for an exclusive, fully integrated hydration carrier system. For example, the compartment built into the vest garment is specialized for a proprietary or specific hydration carrier and for no other purpose. Other previously known vest garments also feature a backpack system which does not take hydration carrier systems into account.

**[0007]** Accordingly, a continual need exists for a vest garment which features a multi-purpose, universal compartment that is particularly useful in storing a removable, generic and/or specific hydration carrier system or other paraphernalia as needed by the end user in a flexible, convenient, and economical manner.

**SUMMARY OF INVENTION**

**[0008]** The present invention is directed to a vest garment with a multi-purpose, universal hydration carrier system compartment. The garment contains multiple separate panels or sections which are fixedly attached and/or adjustably and/or releasably attached in such a manner as to form a functional unit. Typically there a front section, a back section, side

sections, and a shoulder section. The front section comprises of a separate right front panel and a separate left front panel. The back section comprises of a back panel. A shoulder section comprising of a right anterior shoulder panel, a left anterior shoulder panel, and a posterior shoulder panel which may be a single unit or a mixture of separate panels. There are left and right side sections which may comprise of a right anterior side panel, a left anterior side panel, a right posterior side panel, and a left posterior side panel. The side sections, shoulder sections, the front panels, and back panel are connected through fixedly attachable and/or adjustably attachable and/or releasably attachable means. Such releasably attached means may include but are not limited to comprise of at least one fastener such as a zipper, snap, button, clip, buckle, hook and loop fastener, tie, drawstring, or combination thereof. Such adjustable means of attachment may include but are not limited to comprise of at least one pull tab, fixed ladder lock, or any combination of commonly known means of adjustable fastener. The vest may comprise at least one load carrying compartment for additional storage.

**[0009]** A multi-purpose, universal or specific hydration system compartment and/or storage compartment is incorporated onto the posterior or back panel. This compartment occupies more than fifty percent (50%) of the surface area of back panel, and has an opening for access to the hydration system and/or for storage of materials. The compartment may be expandable and/or compressible and/or any combination of non-expandable and/or non-compressible as well.

**[0010]** One preferred embodiment of the combined system garment, the body construction comprises two sets of body panels which are assembled together to make a two-layer thick garment—thus allowing for a combination of materials to be incorporated. Additionally, the double layered construction provides the foundation for a closure system along the vest garment's bottom edges, allowing accommodation for protective body armor panels to be inserted into the space between the vest's inner lining and outer shell. In another preferred embodiment of the vest, a system of fasteners configured and adapted so as to provide mounting points for releasably fastened load carrying compartments. Additionally, another embodiment comprises attachment points to accommodate a personal floatation device. In a further preferred embodiment the vest comprises retro-reflective material so as to give the vest visibility as a safety feature. In yet a further embodiment, the vest partially and/or completely comprises high-visibility material and/or retro-reflective material so as to be utilized as a safety garment. In another preferred embodiment the vest comprises of a PVC or similar material so as to be used as a rain-proof vest. In yet another embodiment the vest comprises of a lightweight and/or general-purpose material for everyday use. Another embodiment may comprise of decorative materials assembled in such a manner as to emphasize a particular aesthetic design in addition to the functional elements of the combined system. A further embodiment has the vest comprises leather and/or a high-durability material for heavy-duty and/or safety purposes.

**[0011]** Thus, the present invention comprises a vest garment whose construction enables it to accommodate a wide range of body types with inherent adjustability features combined with the benefit of a built in hydration carrier compartment which accommodates existing hydration systems on the market.

## BRIEF DESCRIPTION OF THE DRAWINGS

**[0012]** The objects, features, and advantages of the present invention are described in the following description of the preferred embodiment of the invention.

**[0013]** FIG. 1 illustrates the exploded view of the combined garment's panel assembly.

**[0014]** FIG. 2 illustrates the combined garment system's outer shell.

**[0015]** FIG. 3 illustrates the combined garment system's inner lining.

**[0016]** FIG. 4 illustrates an exploded view of the back section of the combined vest garment system and the hydration compartment's location.

**[0017]** FIG. 5 illustrates a rear perspective view of the hydration carrier system.

**[0018]** FIG. 6 illustrates the combined vest garment system in a wearable configuration from the front.

**[0019]** FIG. 7 illustrates the combined vest garment system in a wearable configuration from the back.

**[0020]** FIG. 8 illustrates the combined vest garment system in a wearable configuration from the side.

## DETAILED DESCRIPTION OF THE DRAWINGS

**[0021]** A vest garment with a multi-purpose, universal hydration system carrier compartment is disclosed. For the purposes of explanation, specific nomenclature is set forth to provide a thorough understanding of the present invention in the following descriptions. However, for one skilled in the art this specific invention falls under, these specific details are not required in order to practice the present invention.

**[0022]** FIG. 1 is an exploded view of the individual body panels that make up the vest garment. The primary importance of FIG. 1 is illustrating the specific body panels that make up the vest garment component of the present invention and their relation to one another. The front panels (left **101** and right **102**) are attached to side components (left front side **107** and right front side **108**). The front panels (left **101** and right **102**) also are attached to the front shoulder sections (left **103** and right **104** respectively) which then attach to the posterior shoulder section **105**. The back half of the vest garment comprises of the posterior shoulder section **105**, back panel **106**, and the rear side sections **109** and **110**. This assembly methodology enables various panels to be used to accommodate various sizes of wearer's.

**[0023]** FIG. 2 illustrates the outer shell of the combined vest garment and hydration carrier system. The identifiers for the body panels described in FIG. 1 are included in FIG. 2, but omitted from the description for clarity's sake. The outer shell of FIG. 2 includes load carrying compartments for storing equipment, supplies, or personal paraphernalia **117**. In this preferred embodiment as a motorcyclist vest, the outer shell **100** in FIG. 2 also includes retro-reflective material strips **116**, side release buckles for closing the front of the vest garment when worn (male component **111**, female component **112**), with double-bar or 'ladder lock' hardware **113** and webbing straps for side adjustment (**114** and **115**). The adjustment straps (**114** and **115**) and the ladder lock hardware **113** (via webbing strips) may be attached via the seam between FIG. 2's outer panels and FIG. 3's inner panels and/or any combinations of seams between vest body panels. Lastly, a webbing strip **118** is attached over the junction of the shoulder sections (**103**, **104**, and **105**) so the drink tube which allows

fluid to flow from the hydration system reservoir to the mouthpiece may be held in place without falling off the wearer's shoulders.

**[0024]** Other vests for specific intentions such as but not limited to fishing, hunting, and law enforcement/military purposes may be similarly designed. For recreational purposes such as fishing, hunting, climbing, etc. the combined vest garment and hydration carrier system may omit the retro-reflective material, and the base material of the outer panels **100** can be made of a light-weight, colorful material with additional storage space in the form of fixed pockets and pouches, as well as releasable pouches or bags which connect to the vest garment. For law enforcement/military purposes the body material may be made of prerequisite camouflage/colored material and incorporate an attachment system such as Modular Lightweight Load-carrying Equipment or MOLLE straps and a closure system along the bottom edges for insertion/removal of personal protective panels. An additional vest system may be made for safety purposes, where the body material of the outer panels **100** may incorporate high visibility material. Yet another vest system may comprise attachment points for and/or components of a personal floatation device (PDF). In another vest system a PVC or similar material so as to be used as a rain-proof vest. In yet another vest system the body material of the outer panels **100** comprises of a lightweight and/or general-purpose material for everyday use. Finally, a vest system has the body material of the outer panels **100** made of leather and/or a high-durability material for heavy-duty and/or safety purposes.

**[0025]** FIG. 3 illustrates the inner lining of the combined vest garment and hydration carrier system. For clarification, note that since FIG. 3 is the inner lining of the vest garment, the parts will be inverted compared to the outer shell (i.e. the right side of the outer shell **100** in FIG. 2 will appear on the left side for the inner lining **200** in FIG. 3). This combination of body panels is what comes in contact with the body of the wearer. Made in a similar fashion to the outer shell **100**, the inner lining **200** is made of a left and a right inner front panel (left **201** and right **202**) that are attached to side components (left front side **206** and right front side **205**). Left and right inner front panels (**201** and **202**) attach to the inner shoulder sections (left **204** and right **203**). The inner back half comprises of the posterior, inner shoulder section **207**, the inner back panel **208**, and its back side sections **209** and **210**. As in the outer panels **100**, the inner halves attach where the shoulder section **203**, **204**, and **207** meet. Lastly FIG. 3 shows the internal security pockets **211**, wherein the wearer can securely store personal paraphernalia such as a wallet or cellphone. Also shown in FIG. 3 is the related hardware and adjustment webbing straps (**111**, **112**, **113**, **114**, and **115**) as it would be seen from an internal point of view.

**[0026]** FIG. 4 illustrates another exploded view. Specifically FIG. 4 illustrates the back half of the vest garment and the location of hydration carrier compartment **300** on the back panel **106**. The shaded area clearly illustrates that the hydration carrier component **300** occupies a space of greater than fifty percent (50%) surface area of back panel **106**.

**[0027]** FIG. 5 illustrates the multi-purpose hydration carrier compartment **300**, shown in the perspective view. For sake of clarity, certain details of the body panels may be omitted so the features of FIG. 5 may be better illustrated. The multi-purpose hydration carrier compartment **300** comprises a large expansion panel **301** made so the outer right and left edges fold in on themselves in an accordion fashion. A second

outer layer **302** is attached to the main expansion panel **301**, thus providing an attachment point for the female hook and loop panel **306** and the expansion cord webbing loops **310**. Through both **301** and **302** the hydration reservoir access opening **303** is located for easy access to any hydration carrier system with a side mounted fill port. Built into the bottom of the compartment assembly is a pair of fixed pull straps **313** with a male buckle fixture **111**.

**[0028]** The means of expansion and compression for the multi-purpose hydration carrier compartment in FIG. 5 is done by a laced drawstring **311** through the aforementioned webbing loops **310**. By allowing more cord in the loop assembly, the pouch is allowed to expand; by pulling the cord tighter and locking it place with the cord lock **312** the compartment is compressed.

**[0029]** To provide a means of closure for the top of the compartment, a flap assembly is incorporated in this preferred embodiment: comprising of an inner panel **304** (to which a piece of male hook and loop **307** is attached) and an outer panel **305**, female buckle ends **112**, and a pull tab **308**. Also attached to the flap assembly is a loop fixture **309** which closes by means of hook and loop, thus providing a mounting point to suspend the hydration carrier reservoir from. The entire flap assembly is attached to the back panel **106** along its bottom edge, in such a way that two unblocked channels **314** are created, allowing passage of the hydration carrier reservoir's drink tube from inside the pouch to the wearer's preferred side and the shoulder webbing strap **118**.

**[0030]** The act of closing the main opening (comprising of the gap made when the main expansion panel is attached to the outer back panel **106**) is done by pulling the flap over the opening until the hook and loop patches (**306** and **307**) align, then fasten the buckle components (**111** and **112**) together and pull tight on the pull straps **313**.

**[0031]** FIG. 6, FIG. 7, and FIG. 8 illustrate the combined vest garment and hydration carrier system as it would be seen in a worn capacity. For these illustrations the body panels will be referred to by their association with the exterior or outer panels (**100**) or the interior or inner panels (**200**). Other major components will be numbered for reference, and referred to when relevant.

**[0032]** Specifically, FIG. 6 illustrates the combined vest garment and hydration carrier system from a front or anterior view. Because of the way the outer body panels (**100**) and the inner body panels (**200**) are constructed, the shoulder straps **118** are seen to be horizontal due to their location on the shoulders of the wearer. Note also that the inner body panels **200** are visible through the neck opening, while the outer panels **100** dominate the illustration. This is since the majority of the inner panels are not visible when in the wearable configuration. Slightly visible because of their location are the side adjustment straps **114** and **115**, and lastly are the load-carrying compartments right **117** and the retro-reflective material **116** on the front.

**[0033]** FIG. 7 illustrates the combined vest garment and hydration carrier system from a rear or posterior view. Here the shoulder straps **118** are seen in their horizontal position, and the entire shape of the garment has changed—due to the way it would be seen when a wearer is using it. Again, present are the retro-reflective material strips **116** and the ladder locks **113**.

**[0034]** FIG. 8 illustrates the combined vest garment and hydration carrier system from the side view. For FIG. 6 and FIG. 7, note that the side panels (FIG. 2 **107**, **108**, **109**, **110**,

and FIG. 3 **205**, **206**, **209**, **210**) are now wrapping around to the sides. This is relevant to the side view illustrated in FIG. 8 where the front side panels (**107**, **108**, and **205**, **206**) slide under the rear panels (**109**, **110**, and **209**, **210**). Then the side adjustment webbings straps (**114**, **115**) are threaded through the ladder locks (**113**) to become a releasably and adjustably attached pull strap. Also portrayed are the side adjustment straps **114** and **115**, the load-carrying compartments right **117**, and the retro-reflective material **116** on the front.

**[0035]** The advantages of this invention include, but are not limited to, that the combined garment system enables the wearer to practically carry a variety of personal paraphernalia or equipment in addition to a personal hydration carrier system. Further, by incorporating the hydration system carrier component into the garment the invention negates the need to have an additional hydration carrier system pack, thus reducing the overall weight the wearer must carry when the garment system is in use. Further, the invention reduces the amount of time needed to don and take off the combined system compared to using a separate vest garment and hydration carrier system pack.

**[0036]** While the written description of the invention enables one of ordinary skill to make and use what is considered presently to be the best mode thereof, those of ordinary skill will understand and appreciate the existence of variations, combinations, and equivalents of the specific embodiment, method, and examples herein. The invention should therefore not be limited by the above described embodiment, method, and examples, but by all embodiments and methods within the scope and spirit of the invention as claimed.

What is claimed:

1. A vest garment with a multi-purpose, universal hydration system carrier compartment, comprising:

a vest garment that may be comprised of:

a back panel, a front panel, a shoulder section, and side panels; the front panel comprising of a separate left half and a separate right half. The top edges of the front panel halves are attached to the shoulder section while the side edges are connected to the side panels on their respective left and right sides. The shoulder section may comprise a right front section, a left front section, and a posterior shoulder section which attach to the separate front halves and the back panel by the shoulder sections bottommost edges and the respective front and back panels by their topmost edges. The back panel's side edges are attached to a side panel on the respective left and right edges.

a multi-purpose, universal hydration carrier system and/or storage compartment, comprising:

a compartment fixedly attached to the back panel of the vest, occupying more than fifty percent of the back panel.

2. The vest garment with multi-purpose, universal hydration system carrier compartment as claimed in claim 1, wherein the attachment means for the component parts of the vest garment are of a fixedly attached means and/or a releasably attached means and/or an adjustable means of attachment comprising, but not limited to:

at least one releasable fastener such as a zipper, snap, button, clip, buckle, hook and loop fastener, tie, drawstring, and/or any combination thereof.

at least one adjustable fastener such as a buckle, tie, drawstring, pulltab, and/or any combination thereof.

a fixed means of attachment such as sewn seams, ultrasound welding, adhesive, and/or any combination thereof.

3. The vest garment with multi-purpose, universal hydration system carrier compartment as claimed in claim 1, wherein the exterior shell and/or interior lining comprise of one or more load carrying compartments.

4. The vest garment with multi-purpose, universal hydration system carrier compartment as claimed in claim 1, wherein the multi-purpose hydration compartment comprises a means of compression, encompassing but not limited to such things as the fabric/body material alone, and/or any combination of materials and/or means of fastener.

5. The vest garment with multi-purpose, universal hydration system carrier compartment as claimed in claim 4, wherein the compression generated via a combination of materials and/or means of fastener encompasses but is not limited to the design of the compartment itself, the materials it is made of, and/or external forces exerted onto the compartment such as but not limited to other materials of the vest or to such forces as gravity.

6. The vest garment with multi-purpose, universal hydration system carrier compartment as claimed in claim 4, wherein the multi-purpose hydration compartment may comprise a folding construction in such a manner to allow expansion when the personal hydration system container is full.

7. The vest garment with multi-purpose, universal hydration system carrier compartment as claimed in claim 4 wherein a releasably and/or adjustably fixed fastener system provides compression to a full personal hydration system, thus improving the flow of consumable liquid; comprising but not limited to:

at least one zipper, snap, button, clip, buckle, hook and loop fastener, tie, elastic medium, drawstring, pull-tab, and/or combination thereof.

8. The vest garment with multi-purpose, universal hydration system carrier compartment as claimed in claim 1, wherein the body construction may comprise two layers of body panels for a double layered construction.

9. The vest garment with multi-purpose, universal hydration system carrier compartment as claimed in claim 8, wherein a means of closure along the bottom edges of the double layered construction allows the vest to accommodate

personal protective panels/body armor inserts; the means of closure comprising but not limited to:

at least one zipper, snap, button, clip, buckle, hook and loop fastener, tie, elastic medium, drawstring, pull-tab, and/or combination thereof.

10. The vest garment with multi-purpose, universal hydration system carrier compartment as claimed in claim 1, wherein the exterior shell may comprise a system of fasteners configured and adapted so as to provide mounting points for releasably fastened load carrying compartments.

11. The vest garment with multi-purpose, universal hydration system carrier compartment as claimed in claim 1, wherein the vest garment may comprise mounting accommodations for a personal floatation device; comprising but not limited to:

at least one zipper, snap, button, clip, buckle, hook and loop fastener, tie, elastic medium, drawstring, pull-tab, and/or combination thereof.

12. The vest garment with multi-purpose, universal hydration system carrier compartment as claimed in claim 1, wherein the combined vest garment system may comprise high-visibility material and/or retro-reflective material for safety applications.

13. The vest garment with multi-purpose, universal hydration system carrier compartment as claimed in claim 1, wherein the combined vest garment system may comprise waterproof material.

14. The vest garment with multi-purpose, universal hydration system carrier compartment as claimed in claim 1, wherein the combined vest garment system may comprise lightweight and/or general purpose material.

15. The vest garment with multi-purpose, universal hydration system carrier compartment as claimed in claim 1, wherein the combined vest garment system may comprise leather and/or a high-durability material.

16. The vest garment with multi-purpose, universal hydration system carrier compartment as claimed in claim 1, wherein the combined vest garment system may comprise leather and/or a high-durability material.

17. The vest garment with multi-purpose, universal hydration system carrier compartment as claimed in claim 1, wherein the combined vest garment system may comprise any synthetic, organic, and/or inorganic materials.

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