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(54) **PANTS GARMENT WITH MOVEMENT RESTRICTING LEG MEMBERS**

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(57)

ABSTRACT

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Related U.S. Application Data

(60) Provisional application No. 62/402,812, filed on Sep. 30, 2016.

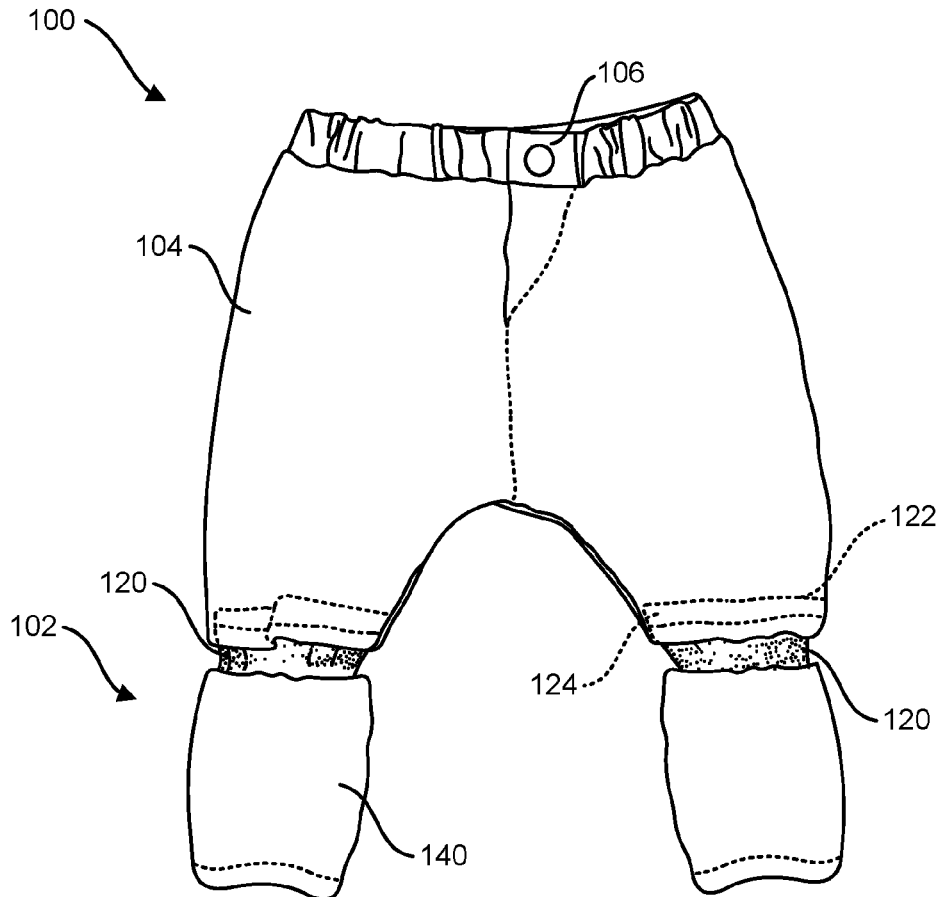
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Embodiments are provided for a pants garment that has an upper segment having a waist, and two leg portions, and a lower segment having two leg members. The leg members having an elastic upper portion and a lower portion. The leg portions of the upper segment overlap the top portion of the leg members, and are attached to the leg members at a portion below the top of the leg members, as to allow the leg members elastic upper portions to resist the movement of the leg warmers when the upper portion is pulled down.



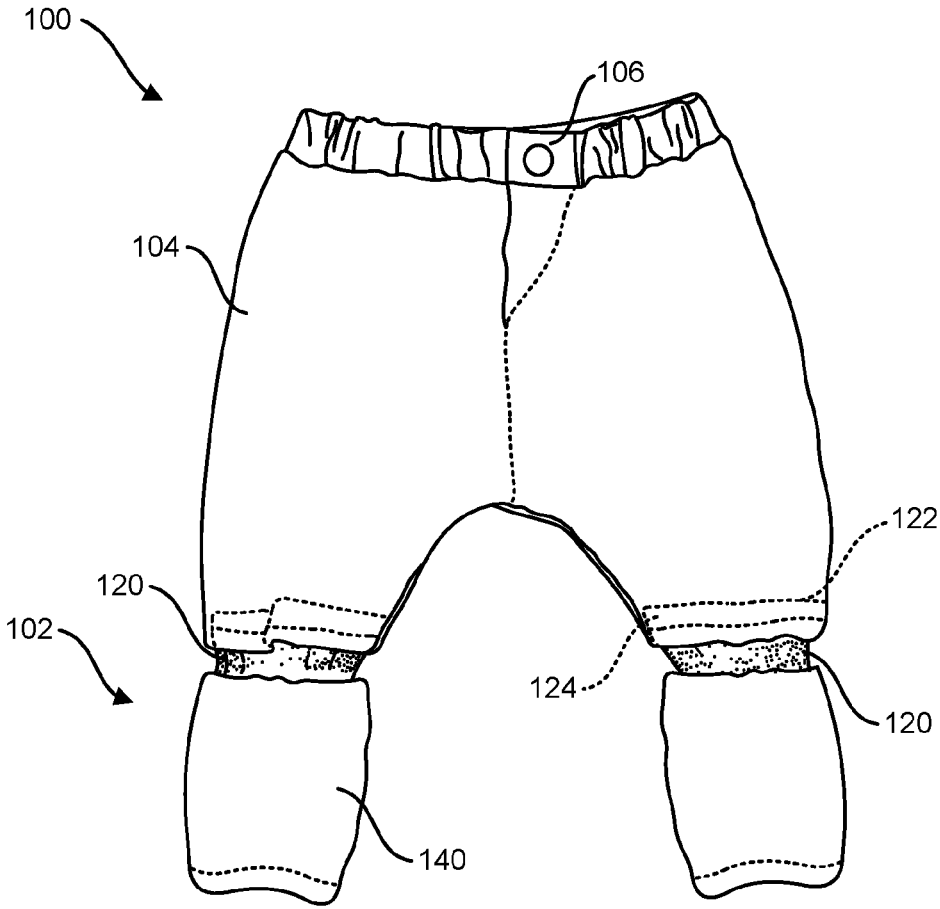


FIG. 1

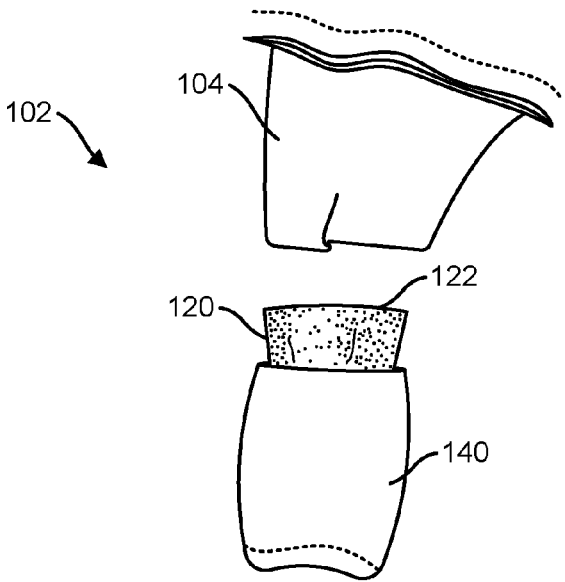


FIG. 2A

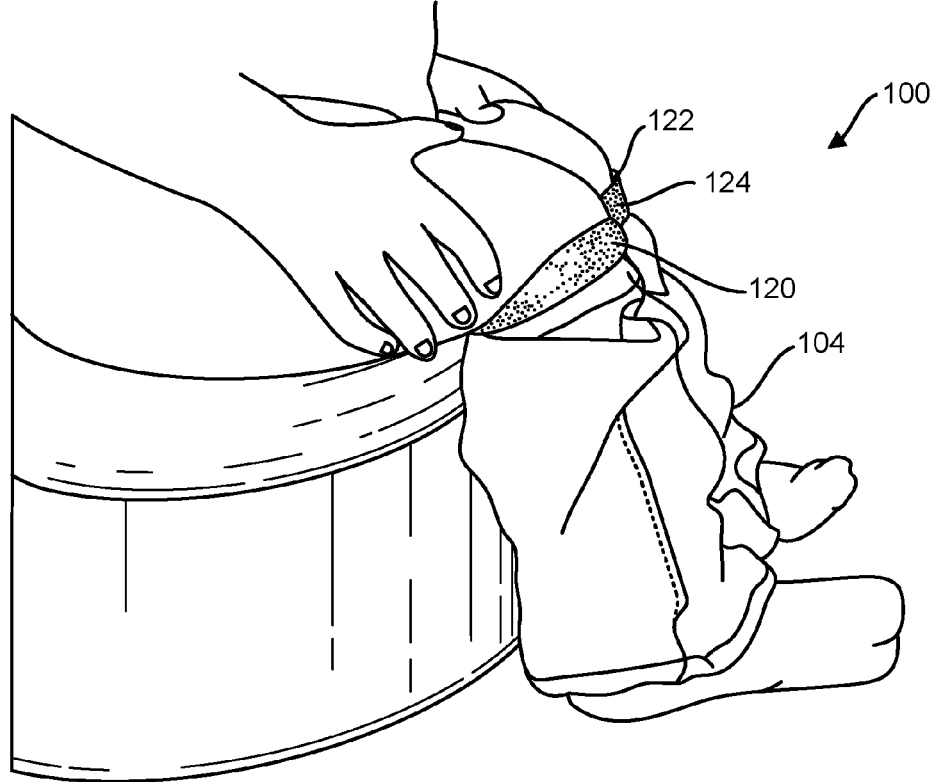


FIG. 2B

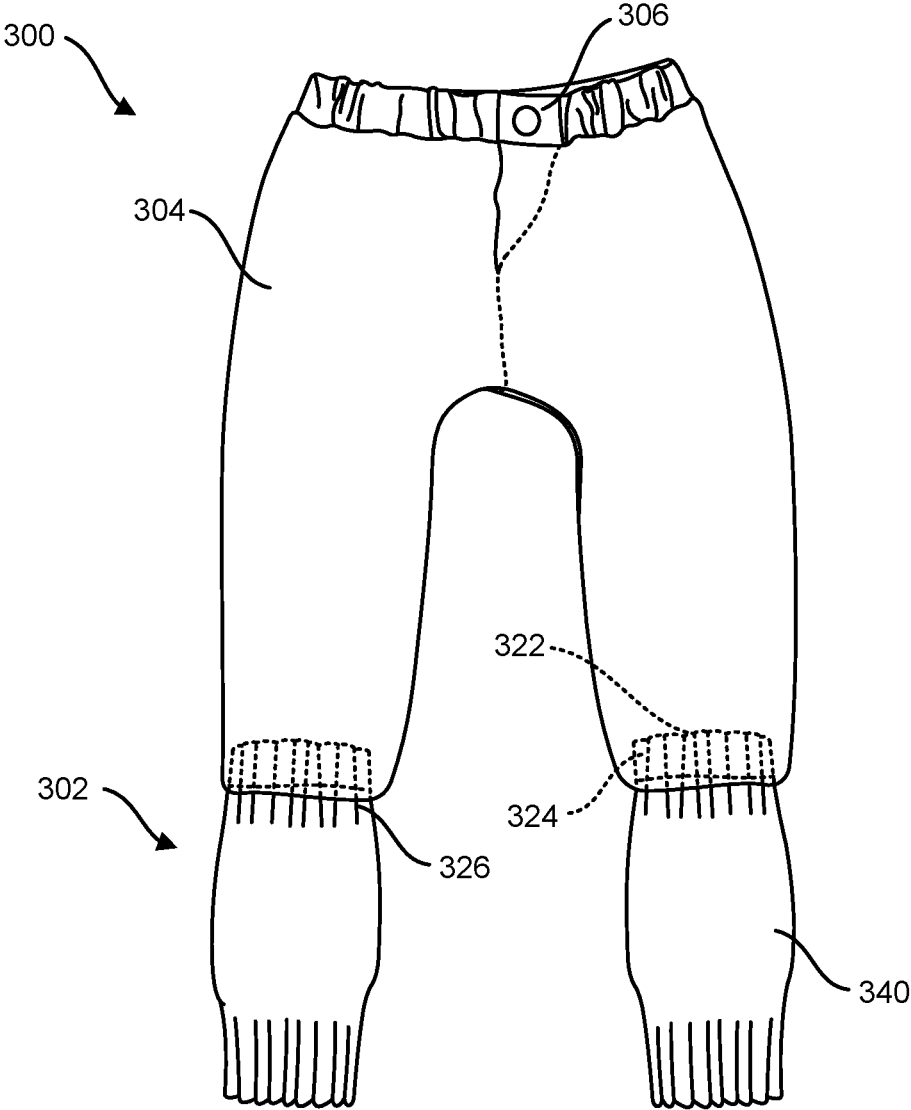


FIG. 3

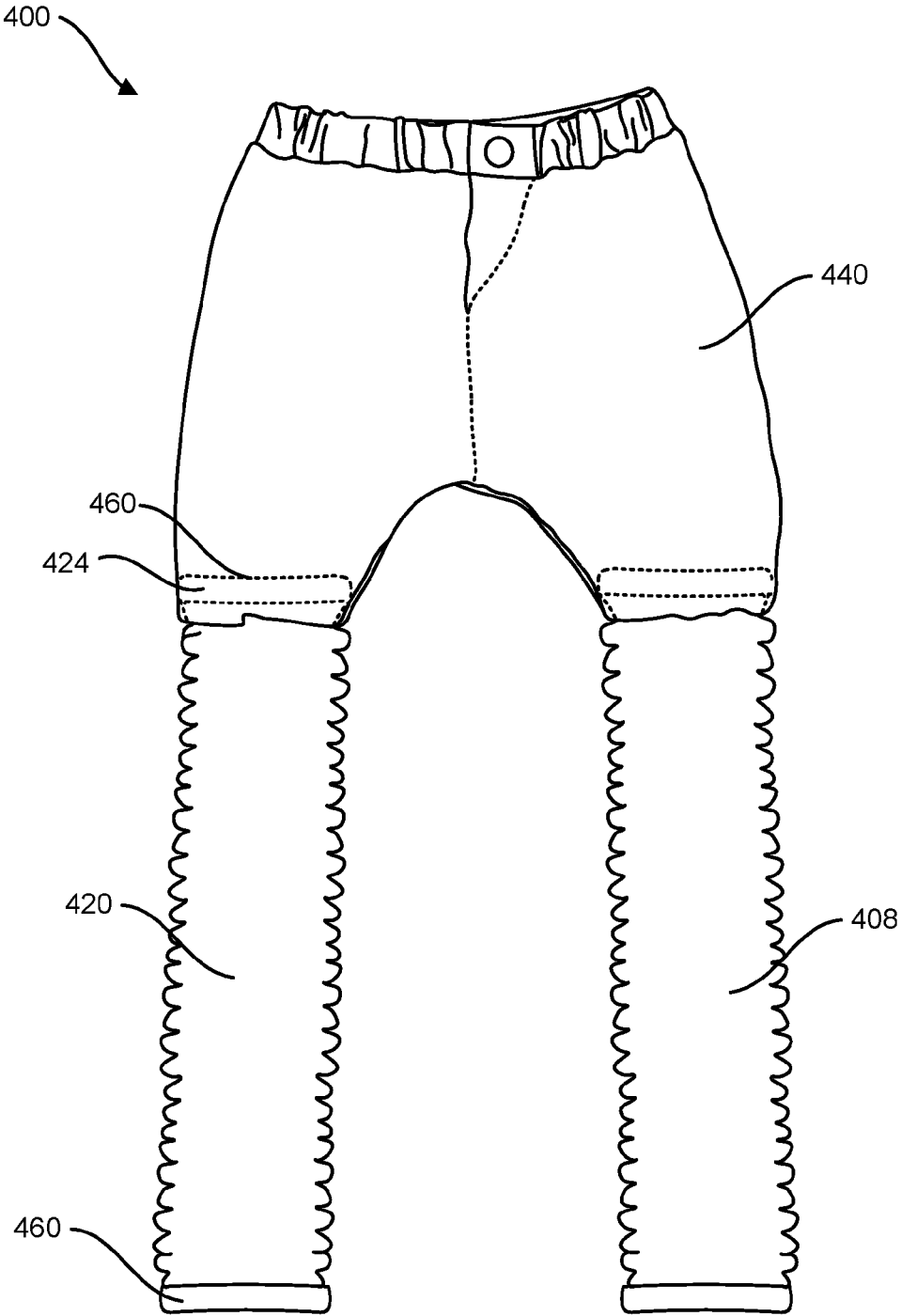


FIG. 4

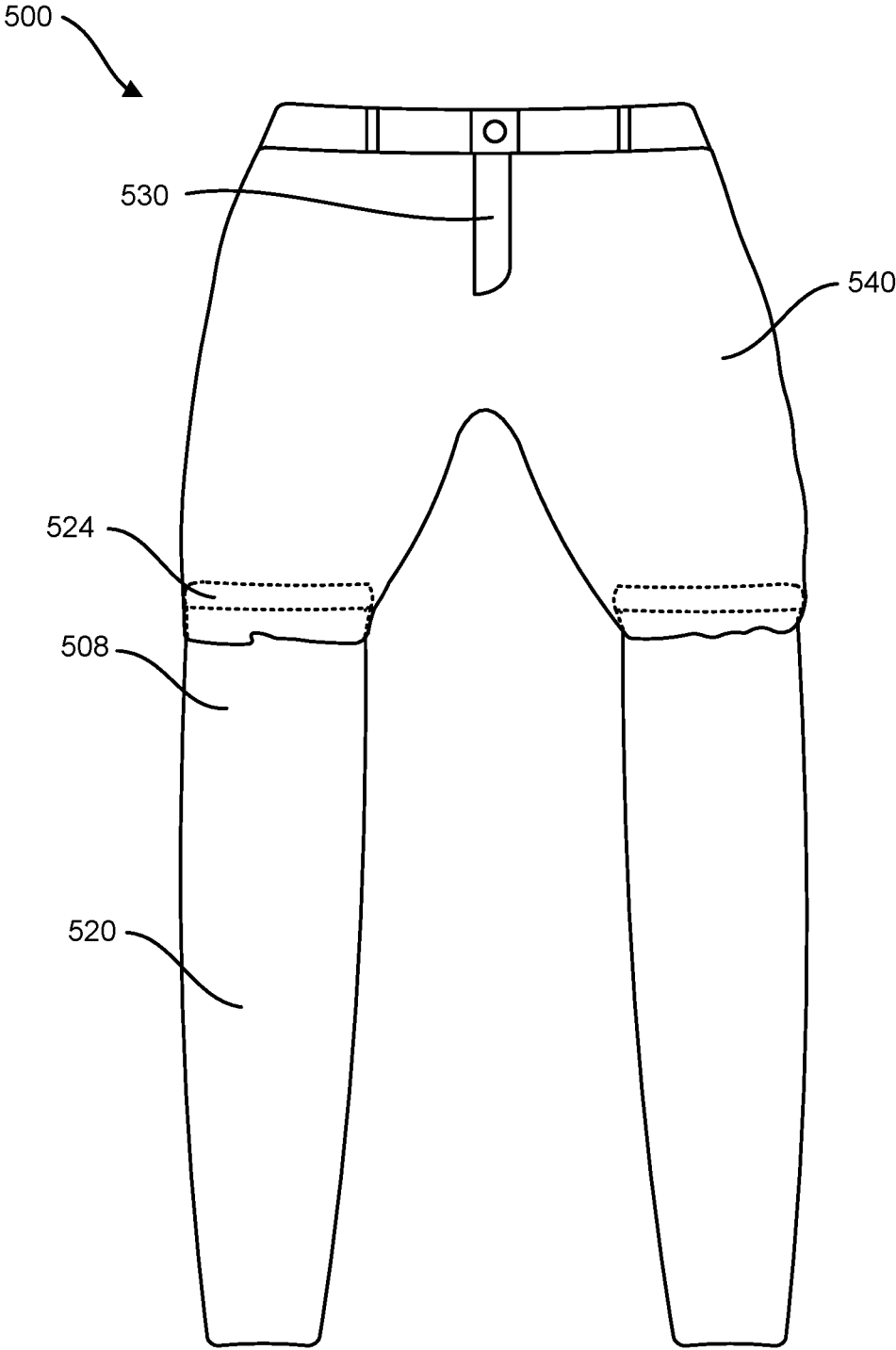


FIG. 5

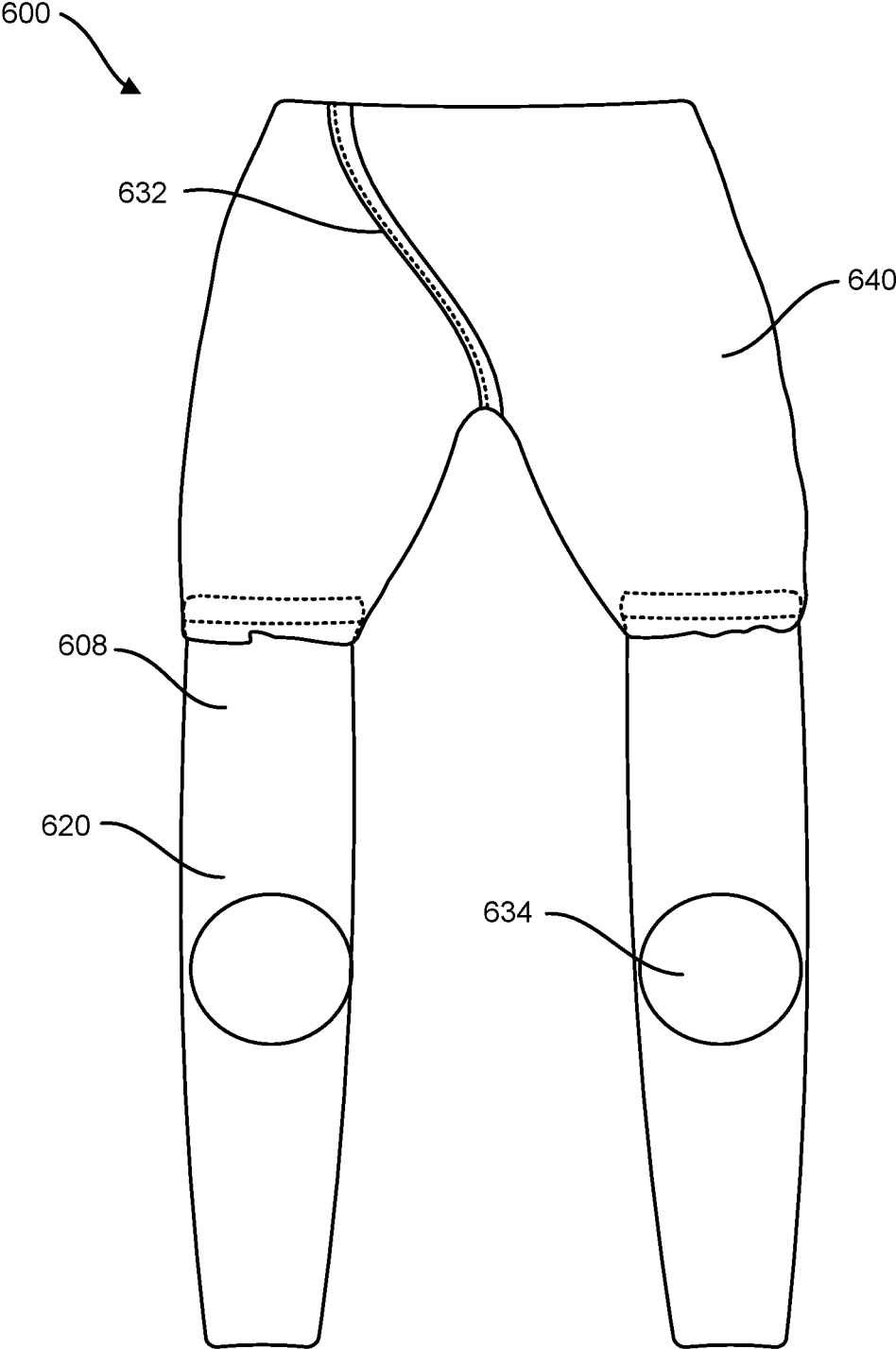


FIG. 6

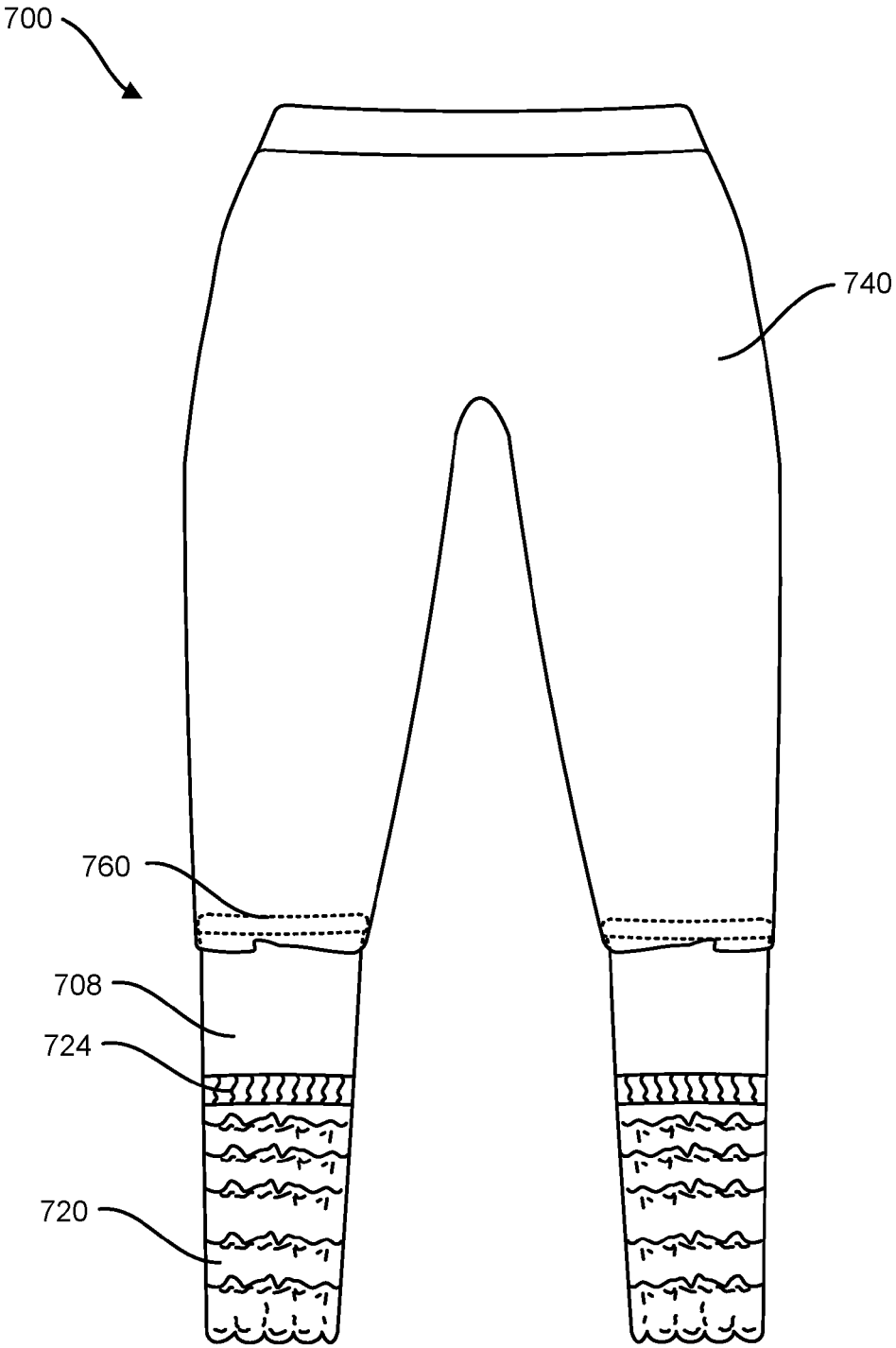


FIG. 7

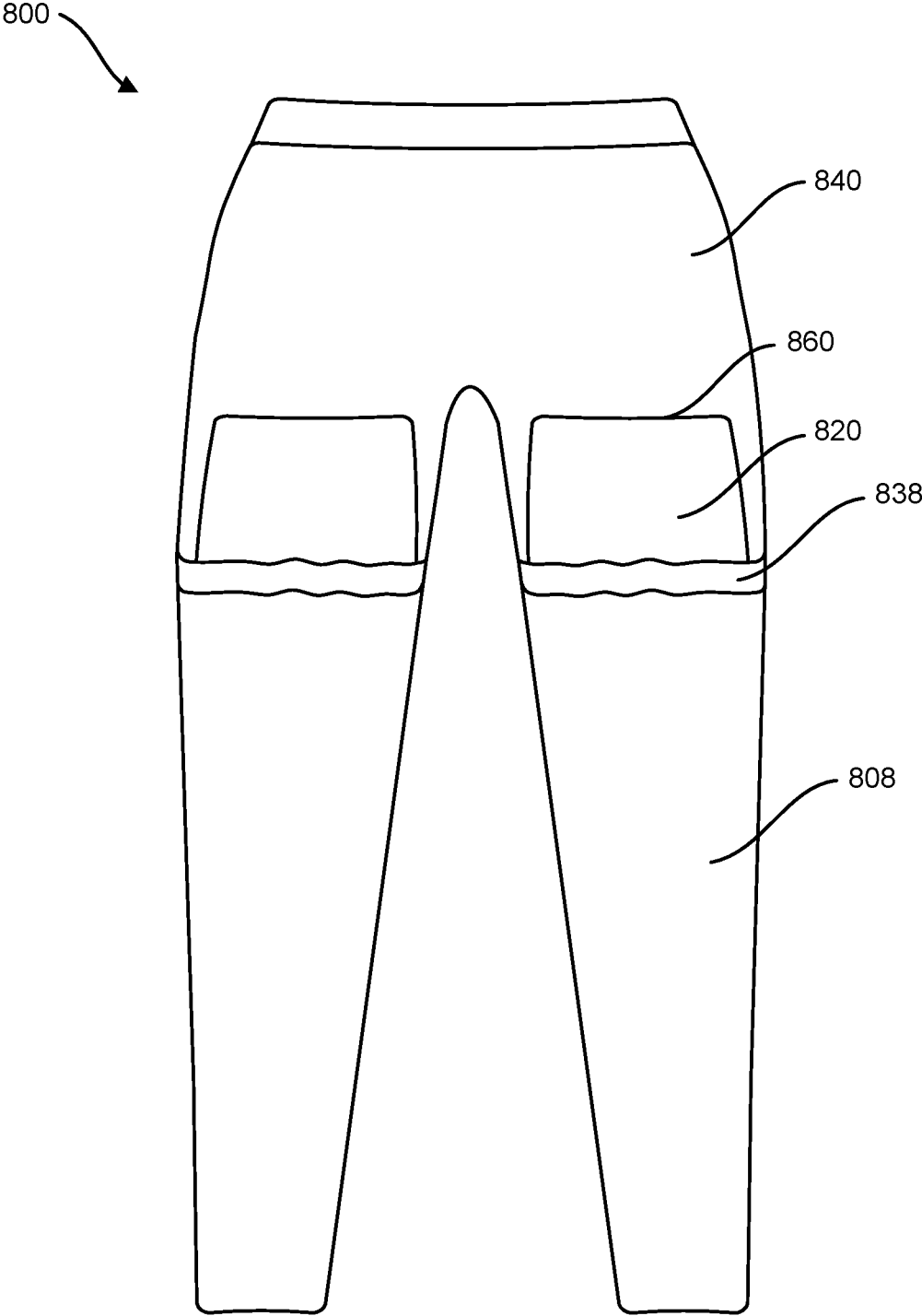


FIG. 8

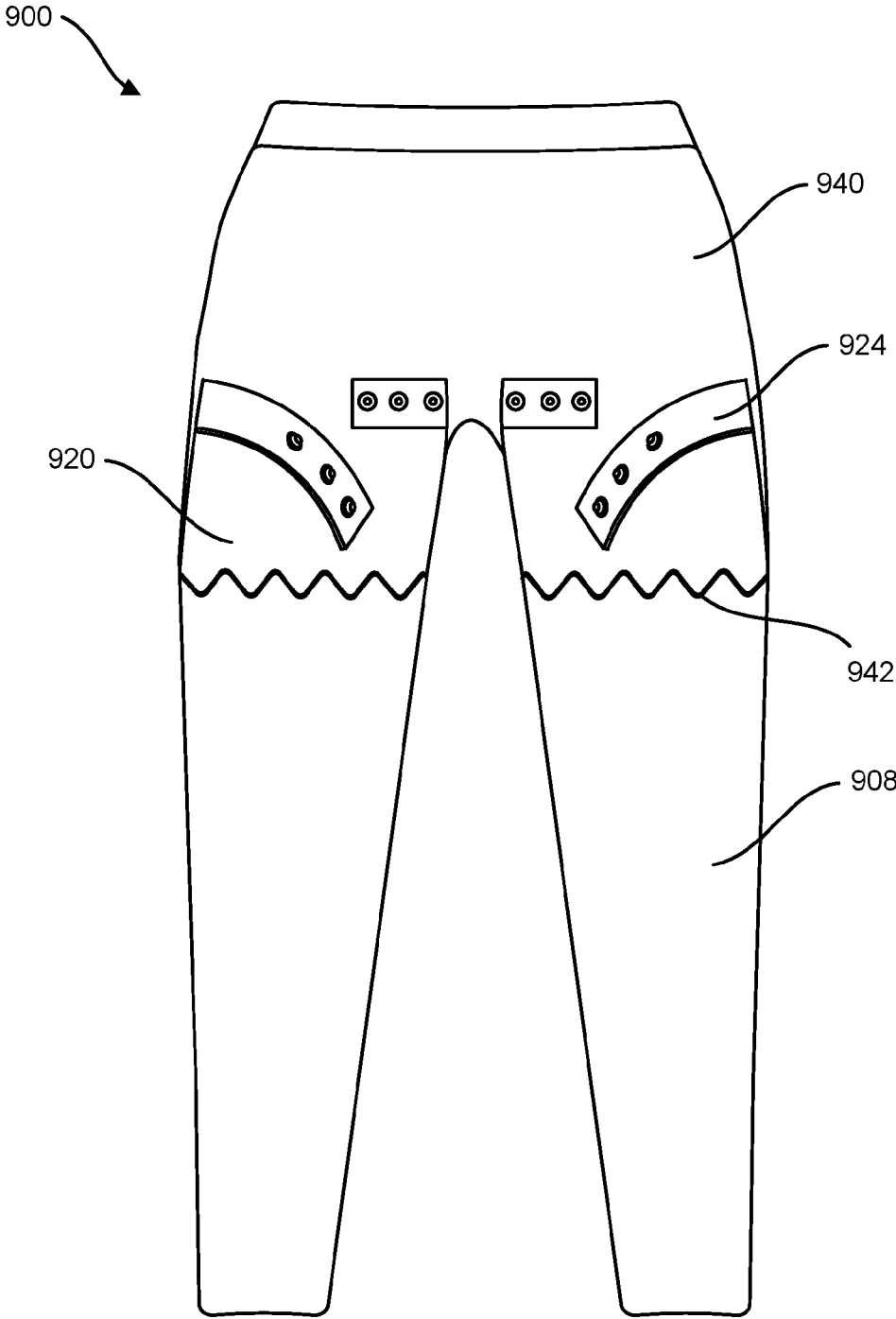


FIG. 9

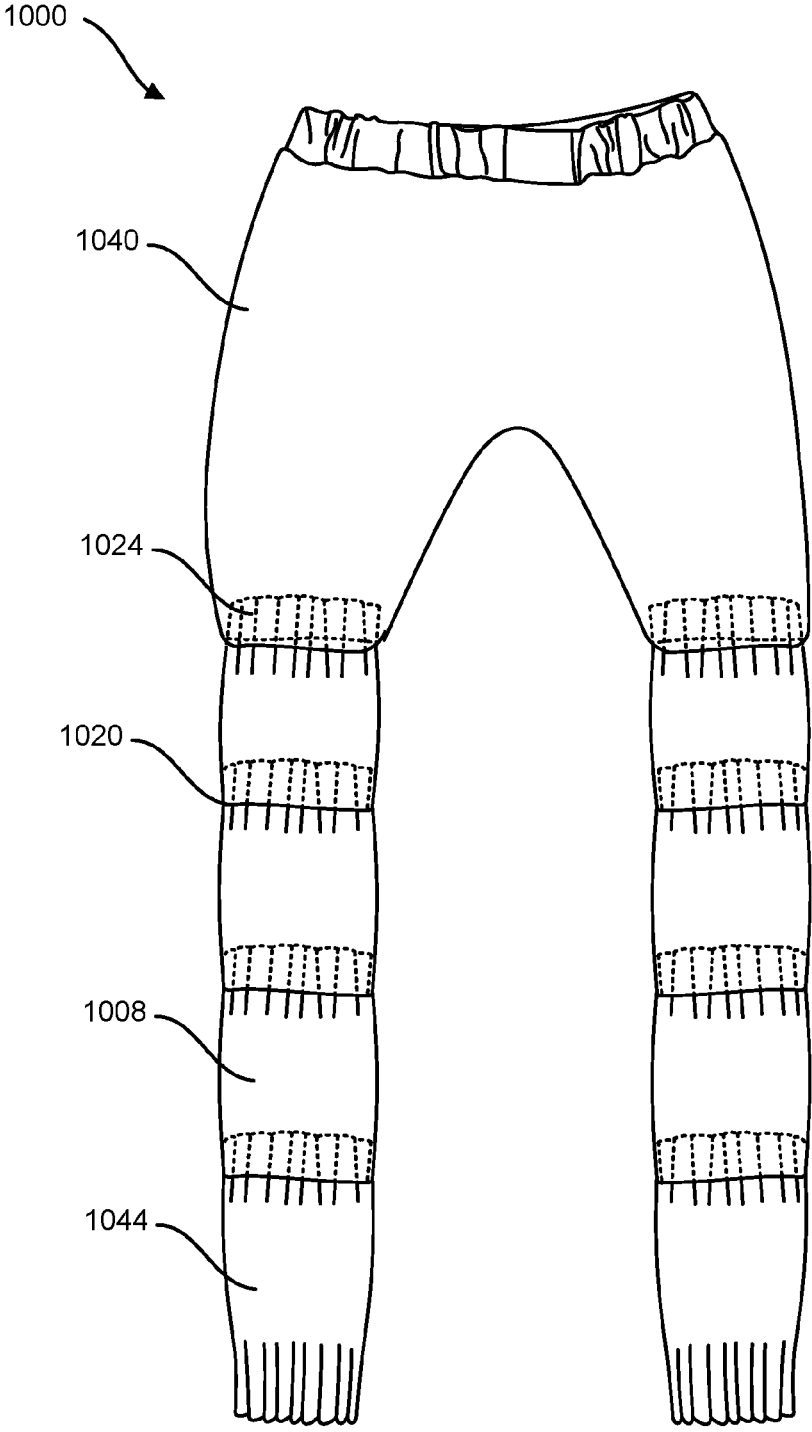


FIG. 10

PANTS GARMENT WITH MOVEMENT RESTRICTING LEG MEMBERS

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application claims priority to U.S. Provisional Application No. 62/402,812 filed Sep. 30, 2016, which is incorporated by reference in its entirety.

FIELD OF THE DISCLOSURE

[0002] This disclosure relates generally to the field of clothing and garments. More specifically, the present disclosure relates to pants having additional leg members that are retainable in place to cover a wearer's legs even if the upper portion of the pants is disengaged such that the pants are not fastened around a waist of a wearer.

BACKGROUND

[0003] People who live in cold climates know the value of keeping your legs warm. Various types of legged garments (e.g. pants, trousers, jeans, leggings, and pajamas) have been developed that cover from the waist to the ankles and are designed to keep the wearer's legs covered and warm. These leg coverings are very important in staying warm in a cold climates or cold buildings, and especially important for young children who are more susceptible to the cold. If, for example, a child's legs are exposed to cold weather and temperatures, they are exposed and vulnerable to the risk of catching a cold or other illness as their immune system can be lowered from exposure to low temperatures.

[0004] Thus, wearers of pants garments and parents who dress their children value how important it is to keep their legs warm in cold weather. However, traditional legged garments, although effective at keeping the legs warm, are difficult to remove when the user needs to use the restroom and when a parent needs to change the diaper of a child. Also, when a wearer sits on a toilet, the loose-fitting fabric of these pants garments causes the pants to drop down to the wearers angles and feet, allowing the pants to touch the bathroom floor.

[0005] Another problem with existing pants is that an individual's ankle is exposed at the bottom opening of the legs, which negatively allows wearer's legs to be exposed to cold air, thus increasing the risk that the wearer will feel very cold and may develop illnesses due to a lowered immune system from the exposure to lower temperatures. This is a common issue for legged garments made from one continuous fabric material from top to bottom.

[0006] Legged garments are also sometimes made of multiple sections. Examples of such garments include those garments that are traditionally made for athletic wear or women's panty hose or stockings, and usually consist of a section or the entire garment being tightly wrapped around the legs to serve a specific set of activities. However, these garments are often tight fitting from the waist to the ankles and are difficult to remove when the wearer needs to use the restroom, especially for children.

[0007] There have been some attempts to provide alternatives. For example, U.S. Pat. No. 9,668,524 discloses an exercise garment with an upper segment formed from an elastomeric material, and a lower segment, attached by a stitched connecting seam, the lower segment being a pair of legwarmers that fit snugly around the legs.

[0008] Although this patent application includes a two-segment garment in the form of pants that has leg warmers, whereby the leg warmers are attached by stitching, this patent application still includes several disadvantages as that of traditional pants garment. More specifically, by having the upper portion of the garment that goes around the waist and upper thighs be tightly fitting, this patent fails to include a pants garment that can easily be removed when using the restroom or changing a diaper.

[0009] U.S. Pat. No. 5,608,915 is another example of existing attempts to address the shortcomings of conventional pants garments. This patent describes a combination garment constructed of a stretch material including an upper portion to snugly engage the waist and upper thighs of the wearer, and a detachable leg portion that is held on the leg with an inner cuff at the top portion that is used to attach the two portions of the garment. This patent, by having a tightly fitting upper portion and removable leg members, does not sufficiently provide a pants garment that can keep a wearer's legs warm while using the restroom or having their diaper changed.

[0010] Due to all of the existing shortcoming in presently available devices, there is still a need for a pants garment that allows for easy change of a diaper, allows a user to use the bathroom without their pants touching the bathroom floor, and to keep a wearer's legs warm at all times.

SUMMARY

[0011] The disclosure presented herein relates to a pants garment that has leg members that are resistant to movement (e.g. in an upward or downward direction), allowing a user to remove the upper portion of the pants garment, for example, when using the restroom, and keep their legs warm. In one or more non-limiting examples, a pants garment as described in one or more embodiments herein may be used as a clothing article that keeps the wearer's legs warm. Those of ordinary skill will appreciate that other uses may be foreseeable also and are included within the scope of the present description.

[0012] In one aspect, one or more embodiments for a pants garment are provided in the present description, whereby the pants garment includes an upper segment having a waist, a first and second leg portion configured to cover at least a portion of the legs of a wearer, and the leg portions each having a circumference of a first size. Further, the pants garment includes a lower segment that is attached to the upper segment, the lower segment having a first and second leg member, the leg members having an upper and lower portion, and the upper portions of said leg members each having a circumference of a second size that is smaller than the circumference of the lower segments of the leg portions. Further, in one embodiment, the leg portions overlap the leg members, and the upper segment is attached to the lower segment at a location below the upper portion of the leg members and at the bottom of the leg portions.

[0013] The preceding and following embodiments and descriptions are for illustrative purposes only and are not intended to limit the scope of this disclosure. Other aspects and advantages of this disclosure will become apparent from the following detailed description.

BRIEF DESCRIPTION OF THE DRAWINGS

[0014] Embodiments of the present disclosure are described in detail below with reference to the following

drawings. These and other features, aspects, and advantages of the present disclosure will become better understood with regard to the following description, appended claims, and accompanying drawings. The drawings described herein are for illustrative purposes only of selected embodiments and not all possible implementations and are not intended to limit the scope of the present disclosure.

[0015] FIG. 1 is a front view of an exemplary pants garment according to various aspects of the present disclosure.

[0016] FIG. 2A is section exploded view of the leg member of the pants garment according to various aspects of the present disclosure.

[0017] FIG. 2B is a side view of a wearer using the pants garment of FIG. 1 according to various aspects of the present disclosure.

[0018] FIG. 3 is a front view of an embodiment of a pants garment according to various aspects of the present disclosure.

[0019] FIG. 4 is a front view of one embodiment of the pants garment where the leg members are leg warmers according to various aspects of the present disclosure.

[0020] FIG. 5 is a front view of one embodiment of the pants garment where the upper segment can be loosened with a fastener according to various aspects of the present disclosure.

[0021] FIG. 6 is a front view of one embodiment of the pants garment where the upper segment includes a fastener, and the leg members have a layer of material added to the knee according to various aspects of the present disclosure.

[0022] FIG. 7 is front view of one embodiment of the pants garment where the leg members are made up of different portions according to various aspects of the present disclosure.

[0023] FIG. 8 is a front view of one embodiment of the pants garment where additional segments are added to the upper segment according to various aspects of the present disclosure.

[0024] FIG. 9 is a front view one embodiment of the pants garment where the leg members upper portion has fastening elements according to various aspects of the present disclosure.

[0025] FIG. 10 is a front view of one embodiment of the pants garment where the leg members have four sections according to various aspects of the present disclosure.

DETAILED DESCRIPTION

[0026] In the Summary above and in this Detailed Description, and the claims below, and in the accompanying drawings, reference is made to particular features (including method steps) of the invention. It is to be understood that the disclosure of the invention in this specification includes all possible combinations of such particular features. For example, where a particular feature is disclosed in the context of a particular aspect or embodiment of the invention, or a particular claim, that feature can also be used, to the extent possible, in combination with and/or in the context of other particular aspects and embodiments of the invention, and in the invention generally.

[0027] The term “comprises” and grammatical equivalents thereof are used herein to mean that other components, ingredients, steps, among others, are optionally present. For example, an article “comprising” (or “which comprises”) components A, B and C can consist of (i.e., contain only)

components A, B and C, or can contain not only components A, B, and C but also contain one or more other components.

[0028] Where reference is made herein to a method comprising two or more defined steps, the defined steps can be carried out in any order or simultaneously (except where the context excludes that possibility), and the method can include one or more other steps which are carried out before any of the defined steps, between two of the defined steps, or after all the defined steps (except where the context excludes that possibility).

[0029] The term “at least” followed by a number is used herein to denote the start of a range beginning with that number (which may be a range having an upper limit or no upper limit, depending on the variable being defined). For example, “at least 1” means 1 or more than 1. The term “at most” followed by a number (which may be a range having 1 or 0 as its lower limit, or a range having no lower limit, depending upon the variable being defined). For example, “at most 4” means 4 or less than 4, and “at most 40%” means 40% or less than 40%. When, in this specification, a range is given as “(a first number) to (a second number)” or “(a first number)-(a second number),” this means a range whose limit is the second number. For example, 25 to 100 mm means a range whose lower limit is 25 mm and upper limit is 100 mm.

[0030] Certain terminology and derivations thereof may be used in the following description for convenience in reference only, and will not be limiting. For example, words such as “upward,” “downward,” “left,” and “right” would refer to directions in the drawings to which reference is made unless otherwise stated. Similarly, words such as “inward” and “outward” would refer to directions toward and away from, respectively, the geometric center of a device or area and designated parts thereof. References in the singular tense include the plural, and vice versa, unless otherwise noted.

[0031] The present description includes one or more embodiments for a pants garment that may be worn by a user, where the upper segment can be easily pulled down to allow a user to use the restroom, while the lower segment stays in place and covers the wearer’s legs. The one or more embodiments for a pants garment include multiple elements for restricting movement of the lower segment leg members. For example, in one or more embodiments, various leg warmers may be attached to the upper segment to prevent the wearer’s legs from becoming exposed. Elements included herein are meant to be illustrative, rather than restrictive. Persons having ordinary skill in the art relevant to the present disclosure may understand there to be equivalent elements that may be substituted with the present disclosure without changing the essential function or operation of the device.

[0032] Turning to FIG. 1, FIG. 1 shows a front view of a pants garment according to various aspects of the present disclosure. In one or more embodiments, this pants garment may include an upper segment 100 attached to a lower segment 102. This upper segment 100 and the lower segment 102 are attached to each other to form a single pants garment. The upper segment 100 comprises a waist 106 and two upper leg portions 104 that extend to below the wearer’s knees. In one non-limiting embodiment, the upper segment 100 when taken independently of the entire pants garment may have the appearance of a pair of trunk shorts. In one embodiment, the upper portion can be made of any material

that is suitable for a pants garment, including, but not limited to, fabric made of cotton, flax wool, ramie, silk, denim, fur, or any other suitable material. In one embodiment, the material is made to loosely fit against the body of the wearer to make it easier to remove the upper portion (e.g. when the wearer needs to use the restroom,) and an elastic material is not used. In another embodiment, a tight-fitting material may alternatively be used.

[0033] In addition to upper segment 100 and lower segment 102, FIG. 1 shows an embodiment that includes leg members 120 located in between upper segment 100 and lower segment 102. The embodiment of pants garment shown in FIG. 1 is a single entity pants garment having different components, including upper segment 100, leg members 120, and lower segment 102. In one embodiment, a portion (or all) of leg members 120, according to some non-limiting embodiments, may be located internally to upper segment 100. Leg members 120 includes an upper portion 122 and a lower portion 140 (e.g. as shown in FIG. 1). Leg members 120 may be worn against the skin of the wearer's legs, and are able to stay in place even when upper segment 100 of the pants garment shown in FIG. 1 is removed and lowered. Thus, it is a feature of leg members 120 that leg members 120 helps to keep a wearer warm because they stay upright and do not fall towards a wearer's ankles when the upper portion 100 of the pants garment is unbuckled, unzipped, or otherwise removed so as to pull down the upper portion 100 of the pants garment.

[0034] In one embodiment, the portion from upper portion 122 of each leg member 120 to at or below a top terminal edge of 140 also of leg member 120 is made of an elastic material that has elastically expansive properties. Any type of elastic material known in the art may be used. Further, in some embodiments, lower portion 140 from a top terminal edge (e.g. closer to the thigh or knee region of the body) may be made of any type of non-elastic material or fabric known in the art. Thus, in some embodiments, leg member 120 is composed of varying materials with at least the upper portion 122 down to a top terminal edge of 140 including an elastic material having one or more properties characteristic of elastic material, including the ability to expand from and retract back to an original size. Further details are provided below with respect to FIG. 2A.

[0035] In one embodiment, a bottom edge of each upper leg portion 104 of upper portion 100 is detachably connected to the upper section 122 of each leg member 120. Alternatively, in other embodiments, a bottom edge of each upper leg portions 104 is non-detachably (e.g. fixedly or permanently) connected to the upper section 122 of each leg member 120. Those of ordinary skill the art will appreciate that various attachment means may be used including sewing or stitching means, adhesives, fasteners, including buttons, zippers, or any other type of fastener, as well as any other type of desired attachment method.

[0036] As shown in FIG. 1, upper leg portions 104 each have a circumference measured at a terminating end of each leg portion 104. For example, the circumference of each upper leg portion 104 may be measured at the bottom end portion of each upper leg portion 104 (e.g. the portion that is opposite waist 106 and that is closer to the knees of the wearer). The circumference of each upper leg portion 104 may have a first size. This first size can be selected depending on the size of the wearer.

[0037] The lower segment 102 is comprised of first and second leg members 120, that in some embodiments, can extend all the way to the wearer's feet. Each leg member 120 of the lower segment 102 has an upper portion 122 and a lower portion 140. In the exemplary embodiment in FIG. 1, the upper portion 122 is made of an elastic material that prevents movement of leg member 120 and ensures that leg member 120 stays in place on the wearer's leg. This elastic material can be made from a blend of cotton, lycra spandex, nylon, polyester, wool, or any material that has an elastic quality that allows the upper portion 122 of the leg member 120 to fit snugly against the leg and hold the leg member 120 in place. The upper portion 122 of leg member 120 has a circumference measured around the top of the upper portion 122 of the leg member 120 and may be characterized as a second size. In some embodiments, the circumference of the upper portion 122 of each leg member 120 is smaller than the circumference of each upper leg portion 104. In other words, the first size that is associated with each upper leg portions 104 is larger than the second size associated with the upper portions 122 of each leg member 120. It may be beneficial for the circumference of the upper portion 122 of the leg member 120 to be smaller than the circumference of upper leg portions 104 so the that the upper portions 122 of the leg members 120 can be overlapped by the bottom portions of leg portions 104 of upper segment 100 (i.e. upper leg portions 104 overlap upper portions 122 of leg members 120).

[0038] Further, in some embodiments, the upper portion 122 of each leg member 120 is connected to each upper leg portion 104, but not at the top of said upper portion 122 of each leg member 120. Rather, the upper portion 122 of the leg members 120 including the top edge of said upper portion 122 is not sewn or connected to each upper leg portion 104, and is instead connected at the very bottom of each upper leg portion 104. In this embodiment, the inner elastic top portion 124 can move freely without pulling on the upper leg portion 104 during use, due to the leg members having a support to the legs independent of the waist of traditional pants garments. The inner elastic top portion 124 is the portion of the of upper portion 122 of the leg member 120 taken from each bottom terminal edge of upper leg portion 104 to the top of the upper portion of the inner elastic top portion 124 that sits internally inside each upper leg portion 104 when worn by the wearer, but can be exposed to the air when the wearer removes the upper segment 100, when, for example, using the restroom. The lower portion 140 is external of the upper segment 100 and exposed to the air when the user is wearing the pants garment. Additionally, the upper portions of the leg members 122 that sit below the bottom terminal edges of the upper leg portions 104, below the point of attachment of the upper and lower segments, is an extension of the inner elastic top portion that extends below the attachment point, externally outside of said upper leg portions 104.

[0039] In some exemplary embodiments, the inner elastic top portion's 124 length is defined as the length of leg members 120 taken from top terminal edge of upper portion 122 to the attachment of the lower segment and the upper segment's upper leg portion 104 may range from about 0.4 cm to about 4 cm. It may be preferable that a length within this range may be used, in one or more non-limiting embodiments, in order to ensure that this intermediate portion of the pants garment (e.g. from upper portion 122 to the attach-

ment) maintains contact with the skin of the wearer and fits snugly against the legs of the wearer so that the wearer is protected from any leg exposure (e.g. to cold temperatures).

[0040] Those of ordinary skill in the art will appreciate that a pants garment, in accordance with the description above, and as shown in FIG. 1 may be made of any overall length and size to fit any wearer, including adults or children or infants.

[0041] FIG. 2A shows an exploded cutaway view of the leg member 120 and one of upper leg portion 104. FIG. 2A provides further details regarding an embodiment of upper portion 122 of leg member 120 and lower portion 140 of leg member 120 with lower portion 102 disconnected from the upper segment 104 of an exemplary pants garment according to various aspects of the present disclosure. In another embodiment, the leg members 120 may have multiple portions with each portion made of different fabric materials while the upper portion 122 being made in self-sizing materials that have elastic characteristics either by the nature of knitting method such as rib knit or the nature of the yarn such as spandex or any stretchable yarn mixed in the material. In the exemplary embodiment shown in FIG. 1 and also in FIG. 2A, the leg members 120 are comprised of two portions including the elastic material upper portion 122 and the lower portion 140. In some embodiments, lower portion 140 may be made in from a material (including fabric material) that is not as elastic as the elastic upper portion 122 to which it is connected above and in which case, the circumference of the elastic upper portion 122 may be smaller than the circumference of the lower portion 140 at their connection. The size of circumference of the opening for each portion at each connection depends on the elasticity or the elastic limit of fabric material used, so that the more elastic the material is, the smaller circumference it can be. In another embodiment, the leg members 120 can be in any length covering any part of tibia area of the leg of the wearer with leg members 120 covering from only part of the tibia or shin area below knee to extending from around the knee all the way down to ankle.

[0042] FIG. 2B shows a side view of a pants garment, such as, for example, the embodiment shown in FIG. 1 and FIG. 2A may be used in an exemplary application. FIG. 2B shows how a pants garment having upper segment 102 and lower portion 104 as well as leg warmers 120 may be easily removed and worn by a wearer using the restroom. When the upper segment 100 is unfastened and/or pulled down for either performing a bodily function or accessing the crotch area of a wearer's body (including genital and elimination organs), such as when a wearer uses the toilet as shown in FIG. 2B, the leg members 120 will remain on the wearer's legs due to the movement restricting capability of the upper portion 122 of the leg members 120. The leg members 120 would be held tightly to the wearer, according to some exemplary embodiments, below the knee due to the upper portion of the leg members 122 tightly fitting the legs and the inner elastic top portion 124 reinforcing the restricting to movement. This restricting to movement that keeps the leg members 120 on the wearer's legs and snugly fits and clings onto the legs when the upper portion is pulled down as shown in FIG. 2B. When a wearer is putting on this embodiment of the pants garment, the inner elastic top portion 124 may flip down overlapping behind the lower part of upper portion 122 when the legs are inserted into the pants. Additionally, this feature can also serve to keep the leg

members 120 from slipping past the widest part of shin area of legs. Additionally, in one embodiment, the inner elastic top portion 124 can flip back up when the wearer pulls up the top portion 100 down.

[0043] In one embodiment, the part of the upper portion 122 of the leg members 120 that is located below the connection to the upper leg portions 104 and externally to these upper leg portions 104 is made of elastically expansive fabrics that expands to the thickness of the legs under the knee region of the wearer when worn, and relaxes to its original shape when not worn. Being a buffer zone to the tension located below the knee between the upper segment 100 and the lower portion 140 of the leg members 120, this lower part of upper portion 122 of the leg members 120 may help the leg members 120 stay on the tibia region and keep leg members 120 from rising up above the knee. This may be because the knee cap is wider than the region below the knee joint, and elastically expansive nature in the material used to form leg members 120, according to exemplary embodiments, also gives the whole garment flexibility and room to expand vertically when the knee joint is bent or in any position such as sitting or squatting that would otherwise have pulled up the leg members 120 in a conventional pant garment.

[0044] Additionally, it is noted that since the leg members 120 stay on the legs while the upper segment 100 is pulled down, the waist 106 may bind and restrict movement of leg members 120 depending on the looseness of the waist 106. If the waist 106 of the upper segment 100 cannot easily be pulled downwardly, in one embodiment, the garment may have waistband and a fly to loosen the waist as opening the fly would release the tension given by the waistband so that the legs can move much more freely and therefore give better access the crotch area of the wearer.

[0045] Various exemplary applications and reasons have been provided for why a wearer may benefit from an embodiment of a pants garment as shown and as described above with respect to FIGS. 1-2B. For example, such a pants garment may be useful if the wearer is a young child or infant and a parent wants to minimize exposure of the young child or infant to cold temperatures. These exemplary embodiments of pants garment may also be useful for adults for similar reasons, to prevent exposure to cold temperatures. Some people are particularly sensitive to cold and may benefit from the benefits of the structure and design of pants garment shown in FIGS. 1-2B which are designed to stay partially against portions of the wearer's legs even if an upper portion (e.g. 102) has been removed or pulled down by the wearer. However, these are non-limiting examples and applications, and the embodiments of a pants garment shown in FIGS. 1-2B, and throughout the present disclosure, may be used for any useful application.

[0046] Turning to FIG. 3, FIG. 3 shows a front view of one embodiment of the pants garment. In this embodiment, the leg members 326 are made entirely of the same elastic material. The material used to make leg members 326 can include but is not limited to any type of material with spandex or elastic yarn, fabrics that gather, knitted materials or the like, including the type used to make leg warmers. In this embodiment, since only one material is used for leg members 326, there is no seam between the upper portion 322 of the leg members 326 and the lower portion 340 of the leg members 326 beneath the connection to the upper leg portions 304. However, in the exemplary embodiment

shown in FIG. 3, the upper portion 322 of the leg members 326 may be narrower than the lower portion 340 of the leg member 326. Alternatively, in other embodiments, the upper portion 322 of leg members 326 may not be lower, depending on the elasticity of material used to ensure the elastic portion of the upper portion 322 of the leg members 326 fits snugly against the wearer's legs. The inner elastic top portion 324 is located above the connection to the upper leg portions 304 providing the benefits of listed above in keeping the leg members 120 on the legs of the wearer. The leg members 326 may be made from any kind of fabric materials that gather to not only further ensure complete coverage of the legs but also for various fashion purposes, and may be made to have an aesthetically pleasing appearance. If the material chosen does not have an elastic element to hold up the leg members 326 from the upper portions 322, it may be feasible for an elastic element to be inserted (e.g. sewn or glued) in a way to form a cuff, at the upper portion 322, to ensure the leg members 326 will remain on the wearer's legs.

[0047] FIG. 4 shows another exemplary embodiment of a pants garment according to various aspects of the present disclosure. In this embodiment, the leg members 420 are leg warmers and made of a material, such as materials often found in winter clothing. Additionally, the members, in this embodiment, are lined with an external warming material to provide additional warming insulation to the legs. This material can be fur, cotton, down, leather, or any other suitable material. The leg members 420 have a cuff located on the top and bottom of the leg members 420. In this embodiment, the top cuff 460 serves as the upper portion of the leg member. The top cuffs are located inside the leg portions 440, and the leg members 420 are connected to the leg portion below the top cuff 460. This arrangement leaves the top cuff to also serve as the internal elastic top portion 424, and serve the same role as described above. The bottom cuff 460 on the leg members 420, in one embodiment, is located along the ankle on the wearer. This bottom cuff 460 serves the purpose of restricting the airflow around the ankles, and prevents air from blowing up into the interior surface area of the legs members 420.

[0048] Regarding FIG. 5, FIG. 5 shows a front view of one embodiment of the pants garment. In this embodiment, the upper segment 500 has a fastener such as a zip fly 530 that may be opened and adjusted in order to loosen the upper portion 530, and pull down upper portion 530 for various reasons (e.g. when using the restroom or changing a diaper or any application in which pants garment is removed by a wearer or another person). This embodiment can also include other closure systems such as a button, a pull string, a belt, snaps, or other known closure systems. Additionally, in this embodiment, the internal upper top cuff portion 524 of the leg member 520 is a cuff. The leg member 520 is made of a looser fitting material 520. This material can be any material previously listed that does not fit tightly against the legs. The internal elastic top cuff portion 524 may serve to additionally restrict the movement of the leg members 520.

[0049] FIG. 6 shows a front view of one embodiment of the pants garment, and this embodiment includes an upper segment 600 that has a long opening with a fastener 632. The fastener 632, in the exemplary embodiment shown in FIG. 6 is a zipper, although any type of fastener known to those of ordinary skill in the industry may also be used. For example, in other embodiments, one or more zippers, but-

tons, buttonholes, hooks, eyes snaps, hoops, loops, drawstrings, magnetic closure system, or any other suitable closing mechanism for fastening the material located on upper segment 600 together may be used. Additionally, this embodiment includes the knee pads 634 located in the knee area of the leg members 620. These knee pads 634 may provide extra protection to a wearer's knees. In one embodiment, the upper leg portions 108 can overlap when a fastening device such as a button hole and button are used. Additionally, in one embodiment the materials 620 are made of an elastic material 608.

[0050] FIG. 7 shows a front view of another exemplary embodiment of the pants garment. In this exemplary embodiment, the leg members 708 consist of more than one portion, with each portion being made of different materials. In the embodiment shown in FIG. 7, the lower portion 720 is made of ruching materials. The upper legs portions 740 of the upper segment 700 extends to the knee region. The upper portion 740, in one or more embodiments, may be made of an elastic material to hold the leg members 708 to the wearer's legs. Accordingly, the internal elastic top portion 760 may be located above the connection of the leg members 708 to a bottom edge of each upper leg portion 740. Further, internal elastic top portion 760 may be located internally inside the upper segment 700 when worn by the wearer. Beneficially, internal elastic top portion 760 adds extra restriction and prevention of movement of leg members 708. Additionally, this embodiment includes a middle portion 724 on the leg members 708. This middle portion 724, in the exemplary embodiment shown in FIG. 7 may be made of a different material than the other portions of leg members 708. This can serve decorative purposes, or serve for additional restricting to movement of the leg members 708 if an elastic material is chosen.

[0051] FIG. 8 shows a front view of one embodiment of the pants garment. In this embodiment, the upper segment 800 includes additional portions. In the exemplary embodiment shown in FIG. 8, upper section 800 includes the bottom of the leg portion 838, which is a different material from the rest of the upper segment 800. This material can be a lighter material than the rest of the upper segment 800. This lighter material allows for pulling down the upper segment 800 easier, as the lighter material will bend easier, and allow the upper segment to fold over the leg members 808. Additionally, this embodiment is connected to the leg members at the bottom of the leg portions 838. Additionally, this embodiment has an internal elastic top portion 860 that rises further up the leg, and includes thicker fabric sections 820 above the connection point. This additional length provides additional support of the leg members, and the thicker pads and different materials make it easier to pull down the upper portion 800.

[0052] FIG. 9 shows a front view of one embodiment of the present invention. In this embodiment, the leg members 908 have an opening cuff 924 that can be adjusted by a fastener. This fastener can be snaps or any other suitable closing devices known in the art. The upper segment 940 and the leg members 908 are connected at point 942, and the leg members continue up the leg portions 920 internally to the cuffs 924. In another embodiment, the leg members are not connected at 942, and are detachable when the cuffs 924 are detached.

[0053] FIG. 10 show a front view of one embodiment of pants garment. The leg members 1008 is comprised of four

portions including the upper portions being connected to the leg portion **1040** below the internal elastic top portion **1024**. From the top down, the upper portion is connection to the top middle portion **1020**, the lower middle portion **1008**, and the lowest portion **1044**. In this embodiment, every leg member portion can be made of the same material. In another embodiment, the leg member portions can be made from different materials. This embodiment is advantageous, in one embodiment, as it provides for an internal elastic portion between every leg member portion, as shown in FIG. **10**. This help resists the movement of the leg members **1008** by providing more points of retention of leg members **1008** in an upright direction and prevent movement in an unwanted downwardly direction. In a further embodiment, the lower portion **1044** is a boot or footsie that the wearer can wear on their feet.

[0054] Advantageously, the present description provides one or more embodiments of various types of pants garments. Each pants garment depicted herein provides advantages that overcome shortcomings of other types of pants garments that are used conventionally. Further, the various embodiments shown in the figures and described herein accommodate different sized waists and may be used in various applications, including, but not limited, keeping a wearer's legs warm while using the restroom. It is noted that the various embodiments of pants garment presented herein may be used in many other ways other than to keep a wearer's legs warm. For example, the various pants garments may generally be used to improve the flexibility of the garment to user or to improve the styling of the pants garment. Thus, the various embodiments described in the present description include a number of novel and helpful components that provide enhanced pants garment to benefit a user.

[0055] The corresponding structures, materials, acts, and equivalents of all means or step plus function elements in the claims below are intended to include any structure, material, or act for performing the function in combination with other claimed elements as specifically claimed. The description of the present invention has been presented for purposes of illustration and description, but is not intended to be exhaustive or limited to the invention in the form disclosed. Many modifications and variations will be apparent to those of ordinary skill in the art without departing from the scope and spirit of the invention. The embodiments were chosen and described in order to best explain the principles of the invention and the practical application, and to enable others of ordinary skill in the art to understand the invention for various embodiments with various modifications as are suited to the particular use contemplated. The present invention according to one or more embodiments described in the present description may be practiced with modification and alteration within the spirit and scope of the appended claims. Thus, the description is to be regarded as illustrative instead of restrictive of the present invention.

1. A pants garment comprising:

an upper segment comprising a waist, a first upper leg portion, and a second upper leg portion, said first upper and second upper leg portions configured to cover at least an upper portion of legs of the wearer, said first upper and second upper leg portions each independently having a circumference of a first size, the

circumference being measured at a bottom end of the first upper leg portion and the second upper leg portion; and

a lower segment attached to said upper segment comprising a first and a second leg member, said first and second leg members each further comprising an internal top portion and an external lower portion, said internal top portions of said first and second leg members each having a circumference of a second size, wherein the circumference of the first and second leg members is smaller than said first size, and wherein said internal top portions of said first and second leg members comprises an elastic material adapted to retain said first and second leg members in place against the legs of the wearer,

wherein said external lower portions of said first and second leg members are located below an attachment point of the upper and lower segments and wherein the external lower portions of said first and second leg members are located external to the internal top portion of said first and second leg members, wherein the internal top portion of said first and second leg members are located above the attachment point of the upper and lower segments, and internal with respect to an interior surface of the upper segment.

2. The pants garment of claim **1** wherein said first and second leg members are permanently attached to said upper segment.

3. The pants garment of claim **1** wherein said first and second leg members further comprise an external upper portion capable of retaining said first and second leg members in place, wherein the external upper portion is located below the attachment point of the upper and lower segments.

4. The pants garment of claim **3** wherein said internal top portions of the first and second leg members are made from a different material than said external top portions and said external lower portions.

5. The pants garment of claim **1** wherein said first and second leg members are made of at least three portions.

6. The pants garment of claim **1** wherein said first and second upper leg portions are connected to each other in an overlapping fashion.

7. The pants garment of claim **1** wherein said internal top portions of said leg members include an elastic cuff.

8. The pants garment of claim **1** wherein said waist further comprises a waistband.

9. The pants garment of claim **1** wherein said leg members are leg warmers.

10. The pants garment of claim **1** wherein said leg members are made of a stretchable fabric or material.

11. The pants garment of claim **1** wherein said leg members further comprise one or more knee pads.

12. The pants garment of claim **1** wherein said elastic material of said internal top portions of said first and second leg members is a releasable fastener.

13. The pants garment of claim **1** wherein said leg members further comprise a foot or bootie portion.

14. The pants garment of claim **1** wherein said upper segment of the pants garment extends from the waist to below the knee.

15. A pants garment comprising:

a waist and two upper leg portions configured to extend from a waist downwardly past each knee, wherein the two upper leg portions overlap two leg members below

each knee, said two leg members each having an elastically adapted upper portion, wherein the two upper leg portions are attached to said leg members at a point on said elastically adapted upper portion of each leg member, said leg members configured to retain the leg members to at least above or at a part of a tibia area of a wearer.

16. The pants garment of claim **15** wherein said leg members are made entirely of an elastic based material.

17. The pants garment of claim **15** wherein said leg members are made of 2 or more portions, where each portion is made of different materials.

18. A method for making a pants garment comprising:
sewing an upper segment, said upper segment comprising a waist and two leg portions that extend below the knee and that have a circumference at the location around the leg below the knee;

sewing a lower segment, said lower segment comprising two leg members having an upper and a lower portion,

said upper portion of the two leg members of the lower segment being made of a tight-fitting material and a circumference smaller than said circumference of said leg portions;

inserting said leg members upper portions into said leg portions; and

attaching said upper segment to said lower segment;

wherein said upper portion of said leg member remains located internally of said leg members and above a point of attachment between the upper segment and the lower segment.

19. The method of claim **18**, further comprising including an elastic member in each of the upper portion of the two leg members of the lower segment.

20. The method of claim **18**, further comprising detachably coupling the upper portion of the two leg members of the lower segment to the upper segment.

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