A system for releasable attachment of a liner garment to an outer garment includes a tab extending from a waistband of the liner garment; a first half of a fastener pair disposed on a surface of the tab; at least one slot disposed near an upper edge of the outer garment, the at least one slot being adapted to receive the tab; and a second half of a fastener pair disposed below the at least one slot so that insertion of the tab into the at least one slot mates the first half and second half of the fastener pair and the outer garment is supported by the liner garment. The slot may be cut through the outer garment or may be provided in the form of a loop, pocket or mounting piece through which the tab may be inserted for attachment of the fastener pair.
ATTACHMENT SYSTEM FOR COMBINATION OUTER PANT AND LINER

RELATED APPLICATIONS

[0001] The present applications claims priority to U.S. Provisional Application No. 61/469,195 filed Mar. 30, 2011, which is incorporated herein by reference in its entirety.

FIELD OF THE INVENTION

[0002] The invention relates to an attachment system for releasably securing an outer pant to an undergarment.

BACKGROUND OF THE INVENTION

[0003] A popular clothing fashion, particularly for young persons, is to wear their pants down below their waist such that their undergarment is revealed. When worn in such a manner, the pants are sometimes secured by tightening a belt around the lower hips of the wearer. Often, however, such an attempt is fruitless, and the wearer often finds himself constantly using one or both of his hands to hold his pants in place so they do not fall down. The problem is particularly troublesome when the wearer is participating in athletics or exercising, each of which activities exerts additional forces on the pants. Use of one’s hands to keep one’s pants from falling down is burdensome and frustrating. Such use of the hands, and the distraction caused thereby, may hinder the performance of the wearer during many activities, including basketball, football, skateboarding, and other athletic sports. This is especially a problem with water sports, where baggy board shorts are frequently worn for surfing, body boarding and other relatively strenuous activities in the water. A strong wave or sudden movement could cause the wearer to lose the shorts entirely.

[0004] Pants having two waistbands and pants having a waistband that is below the waist of the wearer are known in the art. However, the prior art lacks the salient features and advantages of the present invention as described herein. The following is a summary of the relevant prior art.

[0005] U.S. Pat. No. 2,034,312 to Rubin discloses a garment for boys. The garment comprises, among other components, a construction whereby trousers and the corresponding articles of underwear, may be supported from the waist and from the hips. More particularly, there is disclosed an arrangement whereby two such garments may be maintained and associated for ready assembly and disassembly, and may be supported from the hips and the waist and readily removed therefrom as a unit while in such associated relation. The respective waistbands of the boys’ trousers and drawers line up such that they remain at the same level along the waistband of the wearer. The undergarment is not visible when the two garments are in their associated relation.

[0006] U.S. Pat. No. 5,675,842 discloses pants having two waistbands. The pair of pants comprises pants defining a first waistband, the first waistband being made substantially of a first material. A second waistband is made substantially of a second material having elastic properties. Connecting means made substantially of a third material secure the second waistband to the pants. The wearer has the option of having the second waistband hidden behind the pants or visible above the first waistband. The pants taught by the ‘842 patent do not include an undergarment. The “sag” style, which specifically includes the visibility of the upper portion of the undergarment, in addition to the waistband of the undergarment, is not disclosed by the ’842 patent.

[0007] U.S. Pat. No. 5,689,832 discloses sagging double bottom pants. The sagging double bottom is an added separate layer of matching fabric material overlying the rear surface areas of the trousers or pants. The added layer of fabric material covers the seat portion of the trousers or pants, as well as preferably the rear surface portions of the upper end portion of each leg. The added fabric layer is attached to the trousers or pants along the side seams and along the inseams up to and including the center seam in the crotch area. The ’832 patent teaches that the sagging bottom only covers the rear seat portion of the pants and ends at the side seams where it is attached to the pants. The top waistline of the sagging bottom is unattached to the pants such that the added fabric layer extends downwardly in an arcuate configuration by the force of gravity.

[0008] U.S. Pat. No. 6,202,220 to Rhoden discloses drop crotch pants such that when such pants are worn with a garment such as a shirt or blouse, the lower edge of the shirt or blouse serves to obscure the portion of pants above the false waistband, thereby creating the illusion that a traditional pair of single-waistband pants are being worn at a level below the waist. Similar to the ’832 patent discussed hereinabove, the ’220 patent discloses drop crotch pants wherein the material above the false waistband matches the material below the false waistband. This configuration is not in style, especially when wearing pants without a shirt or a skirt that falls above the false waistband or is tucked-in because the preferred style is to have the undergarment of the wearer visible above the sagging pants waistband.

[0009] U.S. Pat. No. 6,308,338 to Caldwell discloses trouser suspenders wherein the extenders are attached directly to the undergarment preferably at the undergarment waistband, such that the waistband forms the waist strap for the trouser suspenders. Fasteners are attached to the lower end of the extenders which attach to the trousers. The ’338 patent comprises trouser suspenders which comprise two extenders which are visible and reside along the outside of the visible portion of the undergarment.

[0010] Because the ’338 patent relies on only two extenders to support the entire load of the pants, their support is ineffective. High load concentrations that occur at the points where the extenders attach to the waistband of the undergarment tend to produce localized sagging of the waistband of the undergarments at these locations. The result can be dangerous. Physical activity can lead to the unexpected falling down of the undergarment/pants union, exposing the private parts of the user.

[0011] There remains a need in the clothing art for a pants construction which solves the problems associated with wearing one’s pants below the waist so that the undergarment is revealed. Especially advantageous would be a pants construction which addresses these problems, such as the tendency for the pants to fall down, while at the same time allowing the wearer to display a desired fashion.

SUMMARY OF THE INVENTION

[0012] The present invention comprises a fastening system that allows the creation of a hybrid garment having a outer pant, for example, board shorts, and a liner that supports the
shorts. The fastening system includes a tab extending from the elastic waistband of the liner, usually from the lower edge of the waistband.

In one aspect of the invention, a system for releasable attachment of a liner garment to an outer garment includes a tab extending from a waistband of the liner garment; a first half of a fastener pair disposed on a surface of the tab; at least one slot disposed near an upper edge of the outer garment, the at least one slot being adapted to receive the tab; and a second half of a fastener pair disposed below the at least one slot so that insertion of the tab into the at least one slot mates the first half and second half of the fastener pair and the outer garment is supported by the liner garment.

In another aspect of the invention, a combination garment includes a liner garment adapted to closely fit a wearer’s body; an outer garment; and an attachment assembly for releasably attaching the outer garment to the liner garment, where the attachment assembly includes a tab extending from a waistband of the liner garment; a first half of a fastener pair disposed on a surface of the tab; at least one slot disposed near an upper edge of the outer garment, the at least one slot being adapted to receive the tab; and a second half of a fastener pair disposed below the at least one slot so that insertion of the tab into the at least one slot mates the first half and second half of the fastener pair and the outer garment is supported by the liner garment. The slot may be cut through the outer garment or may be provided in the form of a loop, pocket or mounting piece through which the tab may be inserted for attachment of the fastener pair.

In one embodiment, the tab is attached to the outer short by passing the tab through a connection slot in the outer short and attaching it to the other half of a corresponding fastener, such as a hook-and-pile fastener, e.g. VELCRO®, located on the outer short. The liner has an elastic waistband that extends above the waistband of the outer short so that it is clearly visible, in accordance with popular clothing styles. Preferably, the elastic waistband of the liner is decorative, for example, with popular brand name, or an interesting and/or colorful pattern. The liner short is created from an elastic fabric, such as a synthetic spandex blend, similar to what is used in well known compression shorts. A pocket may be attached to the liner near the waistband from which the tab extends to store the tab when it is not being used to support the outer board shorts. This keeps the tab from sticking out unintentionally and avoids possible discomfort from the fastener contacting the wearer’s skin. The liner waistband may optionally be configured to allow it to be folded down over the waistband of the outer shorts after attachment of the tab.

The board shorts are of a common design with the exception that slots are formed at designated locations to receive the fastener tab. A corresponding fastener, e.g., the pile portion of a hook-and-pile fastener, may be affixed to the board shorts just below the slot to secure the tab and support the shorts. In most instances, a single tab and slot combination will be provided at the back of the shorts/liner, however, two of more tab/slot combinations may be employed. In some embodiments, the fastener on the tab, e.g., the hook portion of the hook-and-pile fastener, will be on the underside of the tab to engage with the pile portion on the outer surface of the shorts. In other embodiments, the tab fastener may be on the outer surface of the tab, to mate with a corresponding fastener in an inner surface of the attachment surface. In some embodiments, a loop may be attached above the fastener to provide additional support by passing the tab through the loop before attachment.

In an alternative embodiment, the tab may extend downward from the waistband with the fastener on its outer surface. The tab is configured to mate with a fastener sewn inside of a tab pocket on the outer short. The tab may be inserted into the pocket to attach the short and liner at the waistband. Alternatively, the fastener may be located on the underside of a loop sewn on the outer surface of the shorts. In this configuration, the tab, with its fastener on its outer surface, may be affixed to the corresponding fastener on the underside of the loop.

In still another embodiment, a tab pocket is instead attached to the inside of the outer board short just below the waistband. The tab pocket may include one or more slots for receiving the tab. Fasteners inside the pocket mate with the fastener on the tab to firmly hold the two garments together. A variation on this embodiment may involve providing two slots in the pocket, one disposed above the other, providing the wearer with the ability to select how much of the liner’s waistband, if any, will be visible above the waistband of the outer short.

**BRIEF DESCRIPTION OF THE DRAWINGS**

**FIG. 1** is a detail view of the connection between the outer short and liner with the flap/tab of the liner extending through a connection slot in the outer short.

**FIGS. 2a and 2b** are detail views of the liner with the attached tab and the tab stowing pocket, both extending from at the lower edge of the elastic waistband of the liner. **FIG. 2a** shows the tab extended in front of the pocket; **FIG. 2b** shows the tab inside of the pocket.

**FIGS. 3a and 3b** are front and rear views, respectively, of an exemplary construction of a preferred embodiment of the liner.

**FIG. 4** illustrates an alternative embodiment of the outer short and liner combination with the tab extending over the top edge of the outer short for insertion into a loop on which the fastener is affixed.

**FIG. 5** illustrates an alternative embodiment similar to that of **FIG. 5**, but where the flap/tab is inserted to a pocket formed in the upper portion of the waistband of the outer short.

**FIG. 6** illustrates details of the pocket of the embodiment of **FIG. 5** with the outer portion of the pocket partially cut away.

**FIG. 7** shows an alternative embodiment of a fastener attached to the inside of the outer short.

**FIG. 8** shows a second alternative embodiment of a fastener attached to the inside of the outer short.

**DETAILED DESCRIPTION**

**As used herein, “liner” includes an undergarment, a base layer, compression shorts, or other item of clothing that is generally intended to be worn against the skin of the lower body, closely fitting the wearer’s body.**

**As used herein, “short” means an outer garment worn over the lower body, typically but not exclusively loose-fitting, which may include board shorts, athletic shorts for all sports, active wear shorts and pants, sweatpants, warm-up pants, casual shorts and casual pants, which may include jeans (short and long) and pull-on pants. The inventive attach-
ment system is configured to allow the creation of a hybrid garment having an outer pant, for example, board shorts, and a liner that supports the shorts.

[0029] As used herein, “tab” means a piece of fabric or other material that is affixed to and extends from a location on a garment for attachment to a location on a second garment.

[0030] The fastening system of the present invention includes a tab with one half of a fastening pair extending from the elastic waistband of the liner to support the outer garment, e.g., shorts, by inserting the tab through a slot or similar opening to mate the other half of the fastening pair, which is affixed to the outer garment at or near the waistband of the outer garment.

[0031] Referring first to FIG. 1, a tab 22 is attached to the outer board short 2 by passing the tab, with a first half of a fastening pair 24 through a connection slot 14 in the outer short, just below the waistband 10 and attaching it to the second half of the fastening pair 16 on the outer surface of the board short 2. In the preferred embodiment, fasteners 16 and 24 are hook-and-pile fasteners, e.g., VELCRO®, but may also be buttons, snaps, hooks, or other appropriate means that are commonly used for fastening garments. If hook-and-pile fasteners are used, fastener 24 will preferably be the pile portion, while the fastener 16 on the outer surface of the outer shorts will be the pile portion to reduce the chance of skin irritation by the hooks. The liner 30 has an elastic waistband 20 that is capable of extending above the waistband 10 of the outer short so that it is clearly visible. Preferably, the elastic waistband 20 of the liner is decorative, for example, with popular brand name, or an interesting and/or colorful pattern. Alternatively, for women’s styles (described below with reference to FIGS. 4-6), the elastic waistband of the liner may be a simple wide band of spandex or may have a yoga-style waistband, allowing the wearer to fold the waistband down.

[0032] Referring to FIGS. 3a and 3b, the liner short 30 may be created from a synthetic spandex blend, similar to what is used in well-known compression shorts, which cover the lower torso from the waist down and extend partially down the legs, e.g., to mid-thigh or lower. In one embodiment, the liner short 30 may be an assembly of fabric panels. The cut of the short may include creating a waistline that is lower in the front and higher in the back so that the liner’s waistband can be clearly seen above the back of the outer shorts. In the illustrated example, the front and rear panels 33 and 35 of the outer short may be formed from a polyester-spandex blend such as poly-tricot spandex, preferably with 4-way stretch. Optional ventilation panels 32 and 34 at the sides and crotch, respectively, may be created using a polyester fabric, also with 4-way stretch, with moisture-wicking capability. The front support panel 35 may optionally be formed from polyester mesh fabric to provide added support. The tab 22 should be formed from a strong, pliable material with relatively little elasticity, such as ripstop NYLON® to withstand forces that may be encountered during movement or when the outer shorts become wet without losing support. In the preferred embodiment, the tab 22 is formed from synthetic rubber, such as NEOPRENE®. A fastener 24 is sewn on the underside of tab 22.

[0033] As shown in FIGS. 2a and 2b, a stowing pocket 28, formed from a lightweight material such as polyester mesh, may be attached to the outer surface of liner 30 near the waistband 20, to extend below the waistband, to provide a convenient place to store the tab when it is not being used to support outer board shorts. This keeps the tab 22 from sticking out unintentionally and avoids possible discomfort from the fastener 24 contacting the wearer’s skin. FIG. 2a shows the tab 22 extended in front of pocket 28, while FIG. 2b shows the tab outside of the pocket 28 with the end folded back to reveal the fastener 24. The upper front edge 25 of pocket 28 may optionally be located below the attachment point at the waistband to facilitate access to the tab 22. An optional reinforcement piece 26 may be attached to the waistband 20 above the tab 22 and pocket 28. The reinforcement piece, which may double as a tag, helps prevent the product from having a non-elastic material to reduce the amount of stretch when the tag is being pulled by attached board shorts.

[0034] Referring again to FIG. 1, the board shorts 2 are of a common design with the exception of the formation of one or more slots 14 at designated locations to receive the fastener tab 22. As illustrated, a single slot 14 is shown. A corresponding fastener 16, e.g., the pile portion of a hook-and-pile fastener, is attached on the outer surface of the board shorts 2 just below the slot 14 to secure the tab 22 and support the shorts. In most instances, a single tab and slot combination will be provided at the back of the shorts/liner assembly, however, two of more tab/slot combinations may be employed. The fastener 24 on the tab, e.g., the pile portion of the hook-and-pile fastener, will be on the underside of the tab to engage with the hook portion on the outer surface of the shorts. In some embodiments, a loop may be attached above the fastener 16 to provide additional support by passing the tab through the loop before attachment. An example is provided in FIG. 4. 4.

[0035] FIGS. 4-7 illustrate an alternative embodiment, which may be used in a women’s hybrid garment made up of short shorts and a bikini style liner. Such a combination could also be used to create a combination short skirt, e.g., a tennis skirt, and liner. As shown in FIG. 4, outer shorts 40 are supported by a liner, the waistband 46 of which is visible extending above the upper edge of the outer shorts. Tab 42, which is attached to and extends downward from waistband 46 is inserted beneath a loop 44 which is secured to the outer shorts 40 at the back. (As above, while a single tab and slot combination is shown, multiple attachment points may be provided.) The loop 44 defines a “slot” that is adapted to receive the tab. The tab fastener (not shown in FIG. 4) will mate with the fastener on the outer shorts 40 to support the shorts. The shorts fastener, e.g., the hooks side, may be on the backside of loop 44, to mate with the pile tab fastener attached to the outer surface of the tab. Alternatively, the pile tab fastener may be affixed to the underside of the tab 42 to mate with a hook portion that is attached to the outer surface of the shorts 40, underneath and concealed by loop 44. As in the previous embodiments, tab 42 may be formed from ripstop NYLON®, NEOPRENE®, or a similar non-elastic material. The loop is also preferably formed from a strong, non-elastic material such as NEOPRENE®. Once the outer shorts are secured, the wearer may wish to roll down the waistband 46 over the upper edge of the shorts 40, in a manner similar to many yoga-style pants.

[0036] FIGS. 5 and 6 illustrate another alternative embodiment of the women’s liner/shorts combination. Tab 42 extends downward from the waistband 46 of liner 50 to be inserted into a pocket 45 located near the upper edge 47 of outer shorts 40. (Note that the outer short may or may not have a distinct waistband.) In this embodiment, the pocket corresponds to a slot into which the tab may be inserted for attachment of the liner to the outer shorts. Loop fastener 43 is stitched to the underside of tab 42. FIG. 6 shows the upper edge 47 of outer
shorts 40 with the outer portion of the pocket 45 partially cut away to reveal the hook fastener 49 inside the pocket. When the tab is inserted into the pocket 45, fastener 49 mates with loop fastener 43 on the tab to provide support for the outer shorts.

**[0037]** FIG. 7 illustrates an alternative embodiment of the attachment system according to the present invention. In this embodiment, the connectors for the outer shorts are attached inside of the shorts. Attached to the inner surface of outer shorts waistband 70 and extending down to the main body of the outer shorts 71 is an attachment mount 72 to which a tab extending from a liner (previously described) may be attached by inserting the end of the tab through slots 74 and 78. The sides of mount 72, preferably formed from NEOPRENE® or other strong, non-elastic material, for example, canvas, ballistic NYLON® or leather, are firmly stitched to the inner surfaces of the waistband 70 and upper portion of the shorts 71, just below the waistband. As shown, the mount 72 includes a high connect slot 74, which will allow the liner waistband to be seen above the waistband of the outer shorts, and a low connect slot 78, which may expose much less or none of the liner waistband above the waistband of the outer shorts. When using the high connect slot, the pile portion of the fastener, located on the outer surface of the liner tab, will be attached to the hook portion of the fastener 76 on the underside of the mount 72. The low connect slot 78 is formed within the body of mount 72, about half-way between the top and the bottom. When inserting the liner tab into the low connect slot 78, the pile portion will mate with the hook portion 77 below the low connect slot 78 to secure the outer shorts to the liner. The bottom edge of mount 72 is preferably not sewn or otherwise attached to the shorts to allow easy access to attach or release the tab.

**[0038]** FIG. 8 illustrates a mount 82 which defines a single slot near the top of the mount. The liner tab is inserted through the upper portion 86 of mount 82. The pile portion of the fastener mates with the hook portion 84 on the underside of the mount to secure the outer shorts to the liner.

**[0039]** The attachment scheme of the present invention allows a structural and functional combination garment to be created. While the exemplary embodiments described above relate to swimwear, it will be readily apparent that the attachment assembly may be used with other types of clothing, particularly, but not limited to, clothing, both shorts and pants worn for active sports and casual clothing. Accordingly, the illustrative examples are not intended to be limiting—the scope of the invention is intended to be only limited by the following claims.

What is claimed:

1. A system for releasable attachment of a liner garment to an outer garment, comprising:
   - a tab extending from a waistband of the liner garment;
   - a first half of a fastener pair disposed on a surface of the tab;
   - at least one slot disposed near an upper edge of the outer garment, the at least one slot being adapted to receive the tab; and
   - a second half of a fastener pair disposed below the at least one slot so that insertion of the tab into the at least one slot mates the first half and second half of the fastener pair and the outer garment is supported by the liner garment.

2. The system of claim 1, wherein the at least one slot is formed through the outer garment below a waistband, and the second half of the fastener pair is disposed on an outer surface of the outer garment.

3. The system of claim 1, wherein the at least one slot is defined by a loop disposed on an outer surface below an upper edge of the outer garment, and the second half of the fastener pair is disposed underneath the loop.

4. The system of claim 3, wherein the tab extends over the upper edge of the outer garment.

5. The system of claim 1, wherein the at least one slot is defined by a mount disposed on an inner surface of the outer garment, and the second half of the fastener pair is disposed on an underside of the mount.

6. The system of claim 5, wherein the at least one slot comprises an upper slot and a lower slot, wherein attachment using the upper slot causes the waistband of the outer garment to be exposed above an upper edge of the outer garment, and attachment using the lower slot causes the waistband to be at least partially concealed by the upper edge of the outer garment.

7. The system of claim 1, wherein the liner garment is formed from a synthetic spandex material to closely fit a wearer.

8. The system of claim 7, wherein the liner garment is cut higher at its back portion to expose the waistband of the liner above a back portion of the outer garment.

9. The system of claim 1, wherein the waistband of the liner garment is adapted to fold over an upper edge of the outer garment after the fastener pair has been mated.

10. The system of claim 1, wherein the outer garment comprises loose-fitting pants or shorts.

11. The system of claim 1, wherein the fastener pair is a hook-and-pile fastener.

12. A combination garment, comprising:
   - a liner garment adapted to closely fit a wearer's body, the liner garment having a liner waistband;
   - an outer garment; and
   - an attachment assembly for releasably attaching the outer garment to the liner garment, the attachment assembly comprising:
     - a tab extending from the liner waistband;
     - a first half of a fastener pair disposed on a surface of the tab;
   - at least one slot disposed near an upper edge of the outer garment, the at least one slot being adapted to receive the tab; and
   - a second half of a fastener pair disposed below the at least one slot so that insertion of the tab into the at least one slot mates the first half and second half of the fastener pair and the outer garment is supported by the liner garment.

13. The combination garment of claim 12, wherein the at least one slot is formed through the outer garment below a waistband, and the second half of the fastener pair is disposed on an outer surface of the outer garment.

14. The combination garment of claim 12, wherein the at least one slot is defined by a loop disposed on an outer surface below an upper edge of the outer garment, and the second half of the fastener pair is disposed underneath the loop.

15. The combination garment of claim 14, wherein the tab extends over the upper edge of the outer garment.

16. The combination garment of claim 12, wherein the at least one slot is defined by a mount disposed on an inner
17. The combination garment of claim 16, wherein the at least one slot comprises an upper slot and a lower slot, wherein attachment using the upper slot causes the liner waistband of the liner garment to be exposed above an upper edge of the outer garment, and attachment using the lower slot causes the liner waistband to be at least partially concealed by the upper edge of the outer garment.

18. The combination garment of claim 12, wherein the liner garment is formed from a synthetic spandex material to closely fit a wearer.

19. The combination garment of claim 18, wherein the liner garment is cut higher at its back portion to expose the liner waistband above a back portion of the outer garment.

20. The combination garment of claim 12, wherein the liner waistband is adapted to fold over an upper edge of the outer garment after the fastener pair has been mated.

21. The combination garment of claim 12, wherein the outer garment comprises loose-fitting pants or shorts.

22. The combination garment of claim 12, wherein the fastener pair is a hook-and-pile fastener.