A protective undergarment comprising a waist portion comprising an elastic material and being dimensioned to be snugly worn about a waist of a body and of a wearer, a pair of leg portions comprising an elastic material and extending from the waist portion, each leg portion dimensioned to encircle a leg of the wearer's body and comprising an ankle portion comprising a cut-resistant material, and impact absorbing pads connected to a back side of each of said leg portions configured to protect a back of the wearer's legs, the impact absorbing pads comprising a lower pad to protect a calf portion of the wearer's legs.
PROTECTIVE UNDERGARMENT FOR USE BY A HOCKEY PLAYER OR HOCKEY GOALTENDER
CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application is a continuation in part of U.S. application Ser. No. 14/182,990, filed on Feb. 18, 2014. The disclosure of the above application is incorporated herein by reference.

FIELD

[0003] The present disclosures relates to the field of protective sports equipment and in particular to a protective undergarment for use by a hockey player or hockey goaltender.

BACKGROUND

[0004] Various types of protective equipment are worn by hockey players to protect them from body contact, hockey sticks, hockey pucks and hockey skates.

[0005] U.S. Pat. No. 6,782,559 to Regan discloses an undergarment for use by a hockey player comprising a one-piece torso portion having a head opening, leg openings and arm openings; a neck guard assembly comprising an integral neck guard coupled to the torso portion adjacent at the head opening, and a releasable attachment means coupled to the neck guard to permit the neck guard to be securely positioned on a neck of the player; a sock support positioned adjacent to each of the leg openings; an opening to permit the hockey player to don the undergarment; and a zipper positioned so that when closed the undergarment and the sock supports are retained in place on the hockey player.

SUMMARY

[0006] Accordingly, in one aspect there is provided a protective undergarment comprising a waist portion comprising an elastic material and being dimensioned to be snugly worn about a waist of a body and of a wearer, a pair of leg portions comprising an elastic material and extending from the waist portion, each leg portion dimensioned to encircle a leg of the wearer’s body and comprising an ankle portion comprising a cut-resistant material, and impact absorbing pads connected to a back side of each of said leg portions configured to protect a back of the wearer’s legs, the impact absorbing pads comprising a lower pad to protect a calf portion of the wearer’s legs.

[0007] In one form, the impact absorbing pads comprise an upper pad to protect a back of a thigh portion of the wearer’s legs. A sock support is connected to each of the leg portions, the sock support configured to secure a removable sock. The sock support comprises at least one fastening member. A crotch portion extends from a front portion of the waist portion and comprises a pocket configured to receive a genital protector.

[0008] In one form, the leg portions are dimensioned to be worn underneath goaltender leg pads. Each lower pad is positioned to be at least partially overlapped by back flaps of the goaltender leg pads.

[0009] Further areas of applicability will become apparent from the description provided herein. It should be understood that the description and specific examples are intended for purposes of illustration only and are not intended to limit the scope of the present disclosure.

DRAWINGS

[0011] FIG. 1 is a front elevation view of an undergarment for use by a hockey player;
[0012] FIG. 2 is a rear elevation view of the undergarment of FIG. 1;
[0013] FIG. 3 is a front elevation view showing details of a crotch portion forming part of the undergarment of FIG. 1;
[0014] FIG. 4 is a front elevation view showing details of a sock support forming part of the undergarment of FIG. 1;
[0015] FIGS. 5 and 6 are front and rear elevation views, respectively, showing details of a pair of shin pad sleeves forming part of the undergarment of FIG. 1; and
[0016] FIG. 7 is a rear elevation view showing details of impact absorbing pads forming part of the undergarment of FIG. 1.

[0017] The drawings described herein are for illustration purposes only and are not intended to limit the scope of the present disclosure in any way.

DETAILED DESCRIPTION

[0018] The following description is merely exemplary in nature and is not intended to limit the present disclosure, application, or uses. It should be understood that throughout the drawings, corresponding reference numerals indicate like or corresponding parts and features.

[0019] Turning now to FIGS. 1 and 2, an undergarment for use by a hockey player is shown and is generally identified by reference numeral 10. The undergarment 10 comprises a body 20 having a waist portion 30, a crotch portion 40 and a pair of leg portions 50, a sock support 60, a pair of shin pad sleeves 70, and impact absorbing pads 100. In this form, all elements are made of a material comprising approximately 90% nylon and 10% spandex unless otherwise specified.

[0020] The waist portion 30 comprises an elastic waist band 32 dimensioned to snugly fit around the waist of the hockey player.

[0021] The crotch portion 40 is better shown in FIG. 3. As can be seen, the crotch portion 40 comprises a V-shaped pocket 42. The V-shaped pocket 42 is secured to the interior of the body 20 via stitching 46. The stitching 46 extends along each arm of the V-shaped pocket 42, thereby defining an opening 48 providing access to the V-shaped pocket 42. A genital protector 44 is received by the V-shaped pocket 42 through the opening 48. As will be appreciated, the type of genital protector 44 used is dependent on the gender of the hockey player. For male hockey players, a rigid, lightweight plastic genital protector (referred to as a “cup,” “can” or “jock”) shaped to cover and protect the male genitals is supported in the V-shaped pocket 42. For female hockey players, a padded protector (referred to as a “jill”) shaped to cover and protect the female genitals is supported in the V-shaped pocket 42.
[0022] Turning back to FIGS. 1 and 2, each leg portion 50 extends from the waist portion 30 and is dimensioned to snugly fit around a respective leg of the hockey player. Each leg portion 50 comprises a thigh portion 52, a knee portion 54, a calf portion 56 and an ankle portion 58. In this form, each leg portion 50 is made of a cut-resistant material such as for example a Kevlar™ material. It will be appreciated that in other forms only the ankle portion of the leg portions 50 may be made of a cut-resistant material.

[0023] The sock support 60 is better shown in FIG. 4. As can be seen, the sock support 60 comprises a pair of support patches 62. Each support patch 62 comprises a pair of support members 64 and 66. The support member 64 is connected to a front portion of the leg portion 50 via stitching. The exterior portion of the support member 64 comprises a hook-type VELCRO™ material. The support member 66 is connected to the support member 64 along a top surface thereof. The interior portion of the support member 66 comprises a hook-type VELCRO™ material. A lip 68 extends along an edge of the support member 66 and comprises a loop-type VELCRO™ material. In this manner, the hook-type VELCRO™ material of the support members 64 and 66 is used to support the hockey player’s hockey socks by grasping the fibers of the hockey sock, thereby preventing it from falling down. The loop-type VELCRO™ material of the support member 66 is used to mate with the hook-type VELCRO™ material of the support member 64, when no hockey sock is connected thereto. As will be appreciated, the hockey player’s hockey socks are removable from the undergarment 10 such that different colored hockey socks may be worn with the same undergarment 10. For example, a hockey player may selectively wear home colored socks, away colored socks or practice colored socks with the undergarment 10.

[0024] The shin pad sleeves 70 are better shown in FIGS. 5 and 6. As can be seen, each shin pad sleeve 70 is dimensioned to receive a shin pad and comprises inner material 72 and outer material 74. The inner material 72 is connected to the front of the leg portion 50 at a position above the knee portion 54 via stitching 76. The inner material 72 wraps around the leg portion 50 and is connected to the back of the leg portion 50 via stitching 78. As such, the inner material 72 radially circumferentially the leg portion 50 and extends longitudinally from a position above the knee portion 54 to a position above the ankle portion 58. The outer material 74 overlaps the inner material 72 and is connected to the inner material 72 and the leg portion 50 via stitching 78. The outer material 74 is also connected to the inner material 72 along the bottom edge thereof via stitching 80. The outer material 74 extends above the top of the inner material 72 at the front portion, thereby defining a tab 82 for use as a fastening system. In this form, the interior of the tab 82 comprises a hook-type VELCRO™ material patch 84. A loop-type VELCRO™ material patch 86 is connected to the front of the leg portion 50 above the top of the inner material 72. The loop-type VELCRO™ material patch 86 mates with the hook-type VELCRO™ material patch 84 when brought into contact therewith. The bottom front portion of the inner material 72 and the outer material 74 is U-shaped thereby forming a pocket 75 dimensioned to receive the bottom portion of the shin pad. The back bottom portion of the inner material 72 and the outer material 74 is inverse U-shaped, as shown in FIG. 6. Each side bottom portion of the inner material 72 and outer material 74, that is, the position where the U-shape and the inverse U-shape meet, is connected to a respective elastic 88. The elastic 88 extends from the side bottom portion of the inner material 72 and outer material 74 to the back of the ankle portion 58. The elastic 88 is connected to the back of the ankle portion 58 via stitching 90.

[0025] The impact absorbing pads 100 are better shown in FIG. 7. As can be seen, the impact absorbing pads 100 comprise upper impact absorbing pads 102 and lower impact absorbing pads 104. In this form, the upper impact absorbing pads 102 and lower impact absorbing pads 104 are made of a foam material such as for example polyethylene foam having a thickness of 1 cm to 5 cm. Each upper impact absorbing pad 102 is connected to the back of a respective thigh portion 52 via stitching 106. Each lower impact absorbing pad 104 is connected to the back of a respective calf portion 56 via stitching 108. As will be appreciated, the upper impact absorbing pads 102 and the lower impact absorbing pads 104 are connected to the back of the thigh portions 52 and the back of the calf portions 56 within the interior of the body 20.

[0026] During use, the hockey player puts on the undergarment 10 on, similar to putting on a pair of pants. In this form, the genital protector 44 is already positioned in the V-shaped pocket 40 and thus the genital protector 44 is positioned in the proper place. The hockey player slides their shin pads into the shin pad sleeves 70 until a bottom portion of each shin pad is positioned in a respective pocket 75. The shin pads are secured in the shin pad sleeves using the loop-type VELCRO™ material patch 86 and the hook-type VELCRO™ material patch 84 positioned on the tab 82. The hockey player then slides their hockey socks over each shin pad, and secures their hockey socks to the undergarment 10 using the sock support 60. The hockey player slides their hockey pants over top of the undergarment 10. The hockey player then puts on and ties up their hockey skates. The hockey player can then pull each pocket 75 (which contains the bottom portion of a respective shin pad) to stretch out elastic 88, and can slide the tongue of each of their hockey skates underneath a respective protective skirt 75 (which contains the bottom portion of a respective shin pad). Alternatively, the hockey player can keep the tongue of each of their hockey skate exteriors of respective protective skirt 75 (which contains the bottom portion of a respective shin pad). The impact absorbing pads 100 protect the back of the hockey player’s thighs and calves during use, thereby protecting the back of the hockey player’s legs from hockey pucks, hockey sticks and hockey skates.

[0027] In one form where the hockey player is a goaltender, the undergarment is similar to the undergarment described above, with the following exceptions. In this form, the undergarment does not require shin pad sleeves and is configured to be worn underneath goaltender equipment. The V-shaped pocket of the crotch portion is dimensioned to receive a genital protector for a hockey goaltender. Similar to forms above, the genital protector may be permanently secured in the V-shaped pocket or may be removable from the V-shaped pocket. Each upper and lower impact absorbing pad is positioned and dimensioned to be worn underneath goaltender equipment such that exposed portions of the buck of the goaltender’s legs are protected. The ankle portion is made of cut-resistant material to protect the goaltender’s ankles from being cut by hockey skates. The
lower impact absorbing pads are positioned to be at least partially overlapped by back flaps of goaltender leg pads. [0028] In this form, during use, the goaltender puts on the undergarment 10, similar to putting on a pair of pants. In this form, the genital protector for the hockey goaltender is already positioned in the V-shaped pocket 40 and thus the genital protector is positioned in the proper place. The goaltender then slides their selected color of hockey socks over each leg portion, and secures their hockey socks to the undergarment 10 using the sock support 60. The goaltender slides their hockey pants over top of the undergarment 10. The goaltender then puts on and ties up their hockey goaltender skates. The goaltender then puts on their goaltender leg pads such that the lower impact absorbing pads are positioned to be overlapped by back flaps of the goaltender leg pads. Straps of the goaltender leg pads are secured, thereby curving the back flaps around the calf of their leg. As such, at least a portion of the back flaps overlap the lower impact absorbing pads. The impact absorbing pads and the cut-resistant material protect exposed portions of the goaltender’s ankles, calves and thighs during use, thereby protecting the back of the goaltenders legs from hockey pucks, hockey sticks and hockey skates.

[0029] Although in various forms described above the waist portion is described as comprising an elastic waist band, those skilled in the art will appreciate that variations are available. For example, in another form the waist portion may comprise a draw-string type waist band, a zipper or a buckle.

[0030] Although in forms described above the shin pad sleeves are described as comprising a fastening system to allow the shin pads to be secured therein, those skilled in the art will appreciate that alternatives are available. For example, in another form the shin pads may be sewn into the undergarment such that they are not readily removable therefrom.

[0031] Although in forms described above the undergarment is described as comprising shin pad sleeves, those skilled in the art will appreciate that alternatives are available. For example, in another form the undergarment may not have the shin pad sleeves. In this form, the hockey player’s shin pads may be connected to the undergarment through use of one or more Velcro straps or disposable hockey tape.

[0032] Although in forms described above the shin pad sleeves are described as being attached to the leg portions via stitching, those skilled in the art will appreciate that alternatives are available. For example, in another form the shin pad sleeves may be removably attached to the leg portions through use of a VELCRO™ type system or other suitable attachment devices such as for example snaps, a zippers, etc.

[0033] Although in forms described above the genital protector is described as being removable through an opening in the crotch portion, those skilled in the art will appreciate that alternatives are available. For example, in another form the genital protector may be sewn into the crotch portion such that it is not readily removable therefrom. In another form, the crotch portion may include a VELCRO™ type or other suitable type of fastening system to secure the genital protector therein.

[0034] In another form, the shin pad sleeves may include slots to receive straps associated with the shin pads. In this form, once the shin pads are inserted into the shin pad sleeves, the associated straps can be threaded through the slots to further secure the shin pads to the hockey player’s legs.

[0035] Although in forms described above, the impact absorbing pads are described as being made of a foam material such as for example polyethylene foam having a thickness of 1 cm to 5 cm, those skilled in the art will appreciate that alternatives are available. For example, in another form the impact absorbing pads may be made of a closed cell foam. In another form, the impact absorbing pads may be made of a washable foam. In other forms, the impact absorbing pads may be made of a gel material, a rubber material or a silicon material.

[0036] Although in forms described above, the impact absorbing pads are described as comprising an upper impact absorbing pad and a lower impact absorbing pad, those skilled in the art will appreciate that alternatives are available. For example, in another form only a lower impact absorbing pad may be used. In another form, a plurality of small impact absorbing pads may be used and may be equally spaced along the back of the leg portion.

[0037] Although in forms described above, the impact absorbing pads are described as being sewn into the interior of the leg portions of the undergarment, those skilled in the art will appreciate that alternatives are available. For example, in another form, the interior of the leg portions may have pockets sewn therein for receiving the impact absorbing pads. In this form, the impact absorbing pads are inserted into the pockets for use, and can be removed when the undergarment is to be washed.

[0038] In another form, the undergarment may be provided with patches made of a breathable material to increase the breathability of the undergarment during use.

[0039] Although in forms described above, all elements are described as being made of a material comprising approximately 90% nylon and 10% spandex unless otherwise specified, those skilled in the art will appreciate that alternative materials may be used. For example, in another form the elements are made of elastane or a spandex mesh or other breathable material. In another form these elements may be made of a combination of these materials.

[0040] Although in forms described above the sock support is described as comprising a VELCRO™-type system, those skilled in the art will appreciate that alternatives are available. For example, in another form a garter-type system may be used.

[0041] Although in forms described above the shin pad sleeves are described as comprising tabs used as a fastening system, those skilled in the art will appreciate that alternatives are available. For example, in another form elastic straps or bands may be used to retain the shin pads in the shin pad sleeves.

[0042] Although forms have been described above with reference to the accompanying drawings, those of skill in the art will appreciate that variations and modifications may be made without departing from the scope thereof as defined by the appended claims.

[0043] The description of the disclosure is merely exemplary in nature and, thus, variations that do not depart from the substance of the disclosure are intended to be within the scope of the disclosure. Such variations are not to be regarded as a departure from the spirit and scope of the disclosure.
What is claimed is:

1. A protective undergarment comprising:
   a waist portion comprising an elastic material and being
dimensioned to be snugly worn about a waist of a body
and of a wearer;
   a pair of leg portions comprising an elastic material and
extending from the waist portion, each leg portion
dimensioned to encircle a leg of the wearer’s body and
comprising an ankle portion comprising a cut-resistant
material; and
   impact absorbing pads connected to a back side of each of
said leg portions configured to protect a back of the
wearer’s legs, the impact absorbing pads comprising a
lower pad to protect a calf portion of the wearer’s legs.
2. The undergarment of claim 1 wherein the impact
   absorbing pads comprise an upper pad to protect a back of
a thigh portion of the wearer’s legs.
3. The undergarment of claim 1 comprising a sock support
   connected to each of said leg portions, the sock support
configured to secure a removable sock.
4. The undergarment of claim 3 wherein the sock support
   comprises at least one fastening member.
5. The undergarment of claim 4 wherein the at least one
   fastening member is one of a hook and loop and a garter-type
hook.
6. The undergarment of claim 1 wherein the cut resistant
   material is a para-aramid synthetic material.
7. The undergarment of claim 1 comprising a crotch
   portion extending from a front of the waist portion, the
   crotch portion comprising a pocket configured to receive a
genital protector.
8. The undergarment of claim 7 further comprising the
genital protector, wherein the pocket is configured to
permanently secure the genital protector therein.
9. The undergarment of claim 7 wherein the pocket is
   configured to releasably secure the genital protector therein.
10. The undergarment of claim 7 wherein the genital
    protector is one of a jock and a jill.
11. The undergarment of claim 7 wherein the genital
    protector is a genital protector for a hockey goaltender.
12. The undergarment of claim 1 wherein the leg portions
    are dimensioned to be worn underneath goaltender leg pads.
13. The undergarment of claim 12 wherein each lower pad
    is positioned to protect portions of the leg exposed when the
    undergarment is worn underneath goaltender leg pads.
14. The undergarment of claim 12 wherein each lower pad
    is positioned to be at least partially overlapped by back flaps
    of the goaltender leg pads.

* * * * *