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(54) Title: WEIGHTED TRAINING APPAREL

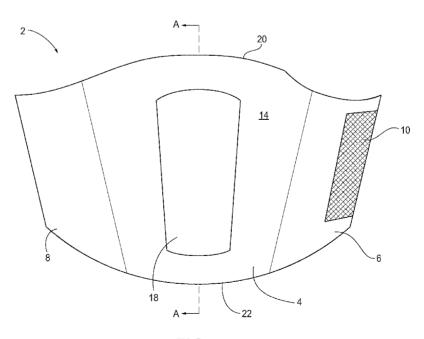


FIG. 1

(57) Abstract: A training apparel or arrangement for weight training including a main body extending from a first end to a second end, at least one attachment portion provided on the main body and configured to secure the main body to an individual's limb, at least one pocket provided on the main body, and at least one insert at least partially insertable into the at least one pocket of the main body and shaped to form around the individual's limb. The at least one insert may provide added weight to the training apparel to assist in dynamic weight training activities performed by the individual. A method of using a training apparel for dynamic weight training is also disclosed.



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WEIGHTED TRAINING APPAREL

CROSS REFERENCE TO RELATED APPLICATION

[0001] This application claims the benefit of U.S. Provisional Patent Application No. 62/151,237, entitled "Weighted Training Apparel", filed April 22, 2015, and U.S. Utility Patent Application No. 15/133,858, entitled "Weighted Training Apparel", filed April 20, 2016, the disclosures of which are incorporated by reference in their entirety.

BACKGROUND OF THE INVENTION

Field of the Invention

[0002] This disclosure relates generally to training apparel typically used in sports-related activities and, more particularly, to weight training apparel used to strengthen an individual's musculature during dynamic sports-related activities.

Description of Related Art

[0003] Several different apparatuses and arrangements are currently used for strengthening musculature in an individual's arms, legs, and torso. Typically, weight and resistance training is used to increase an individual's strength and endurance, and represents a common type of strength training for developing the strength and size of skeletal muscles. This training method uses the weight force of gravity (in the form of weighted bars, dumbbells, and/or weight stacks) to oppose the force generated by muscle through concentric and eccentric contraction. Weight training uses a variety of specialized equipment to target specific muscle groups and types of movement. During weight and resistance training, an individual often remains stationary while lifting the weights with each specific limb or muscle, and the weights are repetitively lifted to increase the concentric and eccentric contraction of the individual's muscles to increase the muscle mass of each particular limb.

[0004] Coaches, trainers, and athletes are continually looking for methods to build speed, strength, and muscular endurance to improve performance in a particular target sport. Weight and resistance training, however, is not adapted to fit into the dynamic movements and activities that are typically a part of training sessions for a sport that requires running long distances at different speeds, such as soccer, baseball, lacrosse, and the like. Based on the individual's stationary position during weight and resistance training, particular muscles in an individual's body are not always strengthened as desired by coaches, trainers, and athletes. The more dynamic sports-related activities are not well adapted for this type of training.

[0005] Therefore, there is a current need in the art for weighted, wearable training apparel designed to be worn during contact and/or non-contact training activities specific to each

target sport that provides weight and resistance training during the dynamic exercises of the training activities.

SUMMARY OF THE INVENTION

[0006] Generally, provided is an improved weighted, wearable training apparel. Preferably, provided is a weighted, wearable training apparel that assists in dynamic weight training during sports-related activities. Preferably, provided is a weighted, wearable training apparel that promotes speed, strength, and endurance development over the course of a long-term training program that includes dynamic sports-related activities. Preferably, provided is a weighted, wearable training apparel that is easily portable to a wide variety of training environments and programs.

[0007] According to one preferred and non-limiting embodiment or aspect of the present invention, provided is a training apparel or arrangement for weight training including a main body extending from a first end to a second end, at least one attachment portion provided on the main body and configured to secure the main body to an individual's limb, at least one pocket provided on the main body, and at least one insert at least partially insertable into the at least one pocket of the main body. The at least one insert may provide added weight to the training apparel to assist in dynamic weight training activities performed by the individual. The at least one insert may include a substantially concave rear surface configured to fit around or adjacent the individual's limb.

[0008] In another preferred and non-limiting embodiment or aspect, the at least one attachment portion may include at least one attachment portion provided on each end of the main body. The attachment portions may be configured to be secured to one another. Each attachment portion may include a fastening portion to secure the attachment portions to one another. At least one insert may be made of metal, steel, a synthetic material, a weighted material, a coated material, and/or the like. At least one insert may be removably inserted in the at least one pocket. At least one insert may be substantially rectangular in shape and may substantially correspond to a shape of the at least one pocket. The at least one pocket may include an elastic material to accommodate a varying number or sizes of inserts. The main body and the at least one attachment portion may be provided as a single, integral member.

[0009] In another preferred and non-limiting embodiment or aspect, a training apparel or arrangement for weight training including a main body extending from a first end to a second end, at least one attachment portion provided on the main body and configured to secure the main body to an individual's limb, at least one pocket provided on the main body, and at least one insert at least partially insertable into the at least one pocket of the main body. The at

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least one insert may provide added weight to the training apparel to assist in dynamic weight training activities performed by the individual. The at least one insert may include a plurality of spherical members.

[0010] In another preferred and non-limiting embodiment or aspect, the spherical members may be arranged in a string to be inserted into the at least one pocket. The at least one attachment portion may include at least one attachment portion provided on each end of the main body. The attachment portions may be configured to be secured to one another. Each attachment portion may include a fastening portion to secure the attachment portions to one another. At least one insert may be made of metal, steel, a synthetic material, a weighted material, a coated material, and/or the like. At least one insert may be removably inserted in the at least one pocket.

[0011] In another preferred and non-limiting embodiment or aspect, a method of using a training apparel for dynamic weight training includes providing a training apparel including a main body and at least one pocket provided on the main body; securing the training apparel to an individual's limb; and inserting at least one insert into the at least one pocket of the main body to provide added weight to the training apparel to assist in dynamic weight training activities performed by the individual. The method may also include adjusting a number of inserts provided in the at least one pocket. At least one insert may include metal and may be substantially rectangular in shape. At least one insert may include a plurality of spherical members provided in a string.

[0012] Further preferred and non-limiting embodiments or aspects will now be described in the following numbered clauses:

[0013] Clause 1: A training apparel or arrangement for weight training, comprising: a main body extending from a first end to a second end; at least one attachment portion provided on the main body and configured to secure the main body to an individual's limb; at least one pocket provided on the main body; and at least one insert at least partially insertable into the at least one pocket of the main body and shaped to form around the individual's limb, wherein the at least one insert provides added weight to the training apparel to assist in dynamic weight training activities performed by the individual.

[0014] Clause 2: The training apparel of clause 1, wherein the at least one attachment portion comprises at least one attachment portion provided on each end of the main body, wherein the attachment portions are configured to be secured to one another.

[0015] Clause 3: The training apparel of clause 1 or 2, wherein the at least one insert comprises a substantially concave rear surface configured to fit around or adjacent the individual's limb.

[0016] Clause 4: The training apparel of any of clauses 1-3, wherein the at least one insert is at least partially comprised of at least one of the following: a metal, a synthetic material, a weighted material, a coated material, or any combination thereof.

[0017] Clause 5: The training apparel of any of clauses 1-4, wherein the at least one insert is at least partially comprised of steel.

[0018] Clause 6: The training apparel of any of clauses 1-5, wherein the at least one insert is removably insertable in the at least one pocket.

[0019] Clause 7: The training apparel of any of clauses 1-6, wherein the at least one insert is substantially rectangular in shape and substantially corresponds to a shape of the at least one pocket.

[0020] Clause 8: The training apparel of any of clauses 1-7, wherein the at least one pocket is comprised of an elastic material to accommodate a varying number or sizes of inserts.

[0021] Clause 9: The training apparel of any of clauses 1-8, wherein the main body and the at least one attachment portion are provided as a single, integral member.

[0022] Clause 10: A training apparel or arrangement for weight training, comprising: a main body extending from a first end to a second end; at least one attachment portion provided on the main body and configured to secure the main body to an individual's limb; at least one pocket provided on the main body; and at least one insert at least partially insertable into the at least one pocket of the main body, wherein the at least one insert provides added weight to the training apparel to assist in dynamic weight training activities performed by the individual, and wherein the at least one insert comprises a plurality of weighted members.

[0023] Clause 11: The training apparel of clause 10, wherein the weighted members are connected to one another on a string to be inserted into the at least one pocket or are directly attached to one another.

[0024] Clause 12: The training apparel of clause 10 or 11, wherein the at least one attachment portion comprises at least one attachment portion provided on each end of the main body, wherein the attachment portions are configured to be secured to one another.

[0025] Clause 13: The training apparel of any of clauses 10-12, wherein each attachment portion comprises a fastening portion to secure the attachment portions to one another.

[0026] Clause 14: The training apparel of any of clauses 10-13, wherein the at least one insert is at least partially comprised of at least one of the following: a metal, a synthetic material, a weighted material, a coated material, or any combination thereof.

[0027] Clause 15: The training apparel of any of clauses 10-14, wherein the at least one insert is at least partially comprised of steel.

[0028] Clause 16: The training apparel of any of clauses 10-15, wherein the at least one insert is removably insertable in the at least one pocket.

[0029] Clause 17: A method of using a training apparel for dynamic weight training, comprising: (i) providing the training apparel, comprising a main body, and at least one pocket provided on the main body; (ii) securing the training apparel to an individual's limb; and (iii) inserting at least one insert into the at least one pocket of the main body to provide added weight to the training apparel to assist in dynamic weight training activities performed by the individual, wherein the at least one insert is shaped to fit around or adjacent the individual's limb.

[0030] Clause 18: The method of clause 17, further comprising adjusting a number of inserts provided in the at least one pocket.

[0031] Clause 19: The method of clause 17 or 18, wherein the at least one insert comprises a substantially concave rear surface shaped to fit around or adjacent the individual's limb.

[0032] Clause 20: The method of any of clauses 17-19, wherein the at least one insert further comprises a plurality of weighted members connected to one another on a string or directly connected to one another.

[0033] These and other features and characteristics of the present invention, as well as the methods of operation and functions of the related elements of structures and the combination of parts and economies of manufacture, will become more apparent upon consideration of the following description and the appended claims with reference to the accompanying drawings, all of which form a part of this specification, wherein like reference numerals designate corresponding parts in the various figures. It is to be expressly understood, however, that the drawings are for the purpose of illustration and description only and are not intended as a definition of the limits of the invention. As used in the specification and the claims, the singular form of "a", "an", and "the" include plural referents unless the context clearly dictates otherwise.

BRIEF DESCRIPTION OF THE DRAWINGS

[0034] FIG. 1 is a front view of a preferred and non-limiting embodiment or aspect of a training apparel according to the present disclosure;

[0035] FIG. 2 is a rear view of the training apparel of FIG. 1;

[0036] FIG. 3 is a front perspective view of the training apparel of FIG. 1;

[0037] FIG. 4 is a cross-section view of the training apparel of FIG. 1 along line A-A including an insert provided with the training apparel;

[0038] FIG. 5 is a front perspective view showing the training apparel of FIG. 1 positioned on an individual's shin;

[0039] FIG. 6 is a front view of a preferred and non-limiting embodiment or aspect of an insert according to the present disclosure;

[0040] FIG. 7 is a rear view of the insert of FIG. 6;

[0041] FIG. 8 is a top view of the insert of FIG. 6;

[0042] FIG. 9 is a front perspective view of the insert of FIG. 6;

[0043] FIG. 10 is a front perspective view of another preferred and non-limiting embodiment or aspect to an insert according to the present disclosure;

[0044] FIG. 11 is a cross-section view of the training apparel of FIG. 1 along line A-A including the insert of FIG. 10; and

[0045] FIG. 12 is a front perspective view of the training apparel of FIG. 1 including the insert of FIG. 10.

DETAILED DESCRIPTION OF THE INVENTION

[0046] For purposes of the description hereinafter, the terms "upper", "lower", "right", "left", "vertical", "horizontal", "top", "bottom", and derivatives and equivalents thereof shall relate to the invention as it is oriented in the drawing figures. However, it is to be understood that the invention may assume various alternate variations, except where expressly specified to the contrary. It is also to be understood that the specific apparatuses and processes illustrated in the attached drawings, and described in the following specification, are simply exemplary embodiments or aspects of the invention. Hence, specific dimensions and other physical characteristics related to the embodiments or aspects disclosed herein are not to be considered as limiting.

[0047] Figs. 1-12 illustrate several preferred and non-limiting embodiments or aspects of a wearable training apparel or arrangement 2 (hereinafter referred to as "apparel 2") for assisting in increasing an individual's muscle mass during dynamic movements and activities, such as non-contact training activities specific to a target sport, including, but not limited to, soccer, baseball, and lacrosse. The apparel 2, as described herein, is intended for use in dynamic weight and resistance training activities, e.g., sports-related activities, as will be readily apparent to those skilled in the art. However, this use is intended to be non-limiting

and the apparel 2 may have applications in rehabilitation services and similar activities that require an increase in an individual's musculature.

A description of one preferred and non-limiting embodiment or aspect of the apparel 2 is now provided, while a description of one preferred and non-limiting embodiment or aspect of a method of using the apparel 2 on an individual's arm, shin, or torso is described below in further detail. The apparel 2 depicted in the preferred and non-limiting embodiment or aspect of Figs. 1-3 includes a main body 4 and two attachments portions 6, 8 provided on each side of the main body 4. In one preferred and non-limiting embodiment or aspect, the main body 4 and the two attachments portions 6, 8 may be formed as a single piece of apparel. In another preferred and non-limiting embodiment or aspect, the main body 4 and the two attachment portions 6, 8 may be connected to one another via stitching, pins, zippers, or any other type of connection method commonly used to connect two pieces of apparel. The main body 4 and the attachment portions 6, 8 may be made from a high performance athletic apparel, such as a stretchable composite fabric. In one preferred and non-limiting embodiment or aspect, the main body 4 and the attachment portions 6, 8 are made from a stretchable material that can stretch around an individual's limb to accommodate a plurality of limb sizes. In one preferred and non-limiting embodiment or aspect, the main body 4 and the attachment portions 6, 8 may be made of elastic nylon. Elastic nylon neoprene piping may also be provided in the main body 4 and/or the attachments portions 6, 8 to add rigidity to the apparel 2. In one preferred and non-limiting embodiment or aspect, the elastic nylon neoprene piping may be provided around the outer circumference of the apparel 2. In another preferred and non-limiting embodiment or aspect, the main body 4 is in the form of a sleeve, e.g., a flexible sleeve, where the attachment portions 6, 8 are permanently affixed and/or integral.

[0049] In one preferred and non-limiting embodiment or aspect, each attachment portion 6, 8 may include a fastening portion 10, 12 to fasten or otherwise affix the apparel 2 on an individual's limb. In a preferred and non-limiting embodiment or aspect, the fastening portions 10, 12 may be provided on an outermost edge of the attachment portions 6, 8. However, it is also contemplated that the fastening portions 10, 12 may be provided at any location on the attachment portions 6, 8 provided that the fastening portions 10, 12 are located at corresponding locations to ensure the attachment portions 6, 8 can be connected to one another. In one preferred and non-limiting embodiment or aspect, one fastening portion 10 may be provided on a front surface of one attachment portion 6 and another fastening portion 12 may be provided on a rear surface of the other attachment portion 8.

[0050] The main body 4 may be provided on the individual's limb, and the attachment portions 6, 8 may be wrapped around the individual's limb and connected via the fastening portions 10, 12 to secure the apparel 2 to the individual's limb. The fastening portions 10, 12 may include a hook-and-loop fastener, such as Velcro®, buckles, zippers, buttons, snapbuttons, hooks, and laces, among other fasteners. In one preferred and non-limiting embodiment or aspect, the fastening portions 10, 12 may include nylon polyester Velcro®. In another preferred and non-limiting embodiment or aspect, the apparel 2 may be provided integral with a sock or shirt sleeve worn by the individual, thereby eliminating the need for the fastening portions 10, 12. Each fastening portion 10, 12 may be formed as a single portion that extends along the length of each attachment portion 6, 8 or as a plurality of portions that are provided along the length of each attachment portion 6, 8.

The main body 4 may include a front surface 14 and a rear surface 16. The rear surface 16 may be configured to rest against the individual's limb when the apparel 2 is positioned in use on the individual. In one preferred and non-limiting embodiment or aspect, the rear surface 16 of the main body 4 may be concave to form around the individual's limb. In another preferred and non-limiting embodiment or aspect, the main body 4 may be made from a flexible material that can form around the individual's limb when the apparel 2 is positioned in use on the individual. As shown in Figs. 1-3, the main body 4 may also include at least one pocket 18 that extends from the front surface 14 of the main body 4. In one preferred and non-limiting embodiment or aspect, the at least one pocket 18 may be formed with one holding section. In another preferred and non-limiting embodiment or aspect, the at least one pocket 18 may have a plurality of holding sections. Alternatively, the at least one pocket 18 may extend from the rear surface 16 of the main body 4. The at least one pocket 18 may extend from a top edge 20 of the main body 4 to a bottom edge 22 of the main body 4. Alternatively, the at least one pocket 18 may be provided at an intermediate position between the top edge 20 and the bottom edge 22. A longitudinal length of the at least one pocket 18 may extend along a longitudinal length of the apparel 2. It is also contemplated that the longitudinal length of the at least one pocket 18 may extend transverse to the longitudinal length of the apparel 2. The at least one pocket 18 may define an opening 24 configured to receive a variety of objects, as will be described below. The opening 24 may be configured to be left open at all times but tight enough to keep the object held within the at least one pocket 18. Alternatively, the opening 24 may include a fastening arrangement (not shown) to close the opening 24 after the objects have been inserted into the at least one pocket 18. The fastening arrangement may be a zipper, a hook-and-loop fastener, such as Veclro[®], buckles,

buttons, laces, snap-buttons, or any other fastener that is configured to close the opening 24. The opening 24 may include an elastic material that can be stretched to an open position to allow insertion of an object and then moved back to a closed position to hold the object in the at least one pocket 18. It is also contemplated that padding or insulation may be provided in the at least one pocket 18 to assist in holding the object in the at least one pocket 18.

With reference to Figs. 4 and 6-9, one preferred and non-limiting embodiment or aspect of the apparel 2 is shown with an insert 26 provided in the at least one pocket 18. The insert 26 may have a generally rectangular shape with rounded edges. It is also contemplated that alternative shapes may be used, such as triangular, circular, trapezoidal, or square, among others. The insert 26 may be substantially cylindrical and/or concave in shape and wrap around or be positioned adjacent the individual's limb. In a preferred and non-limiting embodiment or aspect, the shape of the insert 26 substantially corresponds to the shape of the at least one pocket 18. In one preferred and non-limiting embodiment or aspect, the insert 26 may be weighted to increase the weight of the apparel 2. In one preferred and non-limiting embodiment or aspect, "weighted" may be understood as being made heavy or heavier by the addition of another element. In another preferred and non-limiting embodiment or aspect, "weighted" may be understood as having additional weight. The insert 26 may be at least partially formed from or made of at least one of the following: a metal, such as, steel, powder-coated carbon steel, aluminum, copper, and iron, a synthetic material, such as, polyester, acrylic, nylon, rayon, spandex, and Kevlar, a weighted material, a coated material, or any combination thereof. In one preferred and non-limiting embodiment or aspect, the insert 26 may have a weight of 1 lb (pound), 1.5 lbs (pounds), or 2 lbs (pounds). It is to be understood, however, that the insert 26 may have alternative weights, including more or less weight for each insert 26, depending on the desired weight of the apparel 1 and the specific training in which the individual is participating. In one preferred and non-limiting embodiment or aspect, the insert 26 may be at least partially formed from or made of polyester powder-coated carbon steel. However, it is also contemplated that alternative types of material may be used to add weight to the apparel 2, including, but not limited to, aluminum, rubber, wood, plastic, and fiberglass. The insert 26 may be removably provided in the at least one pocket 18. In one preferred and non-limiting embodiment, the insert 26 may be made of a flexible material that permits the insert 26 to bend around an individual's limb when the apparel 2 is attached to the individual's limb such that a longitudinal length of the apparel 2 extends in a transverse direction to the individual's limb. Alternatively, the insert 26 may be provided integral with the at least one pocket 18. In one embodiment or

aspect, the weighted insert 26 may be removed and an insert using in conventional shin guards or arm guards may be inserted into the at least one pocket 18 so that an individual can also use the apparel 2 during actual sporting events. For example, the individual may use the weighted insert 26 with the apparel 2 for weight training and, during an actual sporting event, may use the conventional insert with the apparel 2.

The insert 26 may include a front surface 28 and a rear surface 30. The rear surface 30 of the insert 26 may be concave to conform to the individual's limb when the apparel 2 is provided on the individual's limb. The insert 26 may be shaped to form around an individual's limb when the apparel 2 is provided on the individual's limb. In a preferred and non-limiting embodiment or aspect, a plurality of inserts 26 may be provided with the apparel 2, in which each insert 26 has a different weight. During use of the apparel 2, an individual may insert the appropriate insert 26 into the at least one pocket 18 according to the desired weight to be lifted by the individual's limb. In another preferred and non-limiting embodiment or aspect, multiple inserts 26 may be inserted into the at least one pocket 18 to add more weight to the apparel 2. Therefore, a two-pound insert 26 may be provided in the at least one pocket 18 or two one-pound inserts 26 may be provided in the at least one pocket 18. By adjusting the amount of weight of the insert 26, an individual can provide small, varying amounts of incremental weight resistance to the individual's limb that can be worn during dynamic sports-related training activities. The adjustments in weight provide incremental changes to build speed, strength, and endurance over a long-term training The weight provided by the insert 26 may also be adjusted to the specific individual to ensure that the apparel 2 does not limit, alter, or change the natural movement or gait of the individual during training.

[0054] With reference to Figs. 10-12, an alternative type of insert 32 may be provided in the at least one pocket 18 of the apparel 2. In this preferred and non-limiting embodiment or aspect, the at least one pocket 18 is provided with a plurality of separate holding sections for the inserts 32. In a preferred and non-limiting embodiment or aspect, the inserts 32 may be removably inserted into the at least one pocket 18. Alternatively, the inserts 32 may be integrally formed in the at least one pocket 18. Each insert 32 may be formed as a chain or string of substantially weighted spherical members 34. The spherical members 34 may be connected to one another with a string or chain. Alternatively, the spherical members 34 may be directly attached to one another. In one preferred and non-limiting embodiment or aspect, a chain of spherical members 34 may be bendable to wrap around the individual's limb when the apparel 2 is positioned on the individual's limb such that a longitudinal length of the

apparel 2 extends in a transverse direction to the longitudinal length of the individual's limb. In one preferred and non-limiting embodiment or aspect, the inserts 32 may be inserted into the at least one pocket 18 along with the rectangular inserts 26. In one preferred and non-limiting embodiment or aspect, the spherical members 34 may be made from at least one of the following: a metal, a synthetic material, a weighted material, a coated material, or any combination thereof. In another preferred and non-limiting embodiment or aspect, the spherical members 34 may be made of plastic, rubber, fiberglass, or an alternative type of metal. The spherical members 34 may be welded to one another to form an insert 32 or may be provided in a separate sleeve or packaging (not shown) that holds the spherical members 34. It is also contemplated that alternative shapes may be used for the spherical members 34, such as, square, rectangular, or trapezoidal. Each insert 32 may be placed in a holding section of the at least one pocket 18 to provide added weight to the apparel 2. Similar to the insert 26 described above, an individual can adjust the weight of the apparel 2 by increasing or reducing the number of inserts 32 that are provided in the at least one pocket 18 of the apparel 2.

[0055] With reference to Figs. 1-5, a method of using the apparel 2 during dynamic sportsrelated training activities is now described. Initially, an individual will determine the desired
amount of weight that should be used with the apparel 2 based on the type of training
activities being performed by the individual. Based on the desired amount of weight, the
individual may provide an insert 26, 32 or a plurality of inserts 26, 32 into the at least one
pocket 18 of the apparel 2. After the inserts 26, 32 have been provided in the at least one
pocket 18, the individual may close the opening 24 of the at least one pocket 18 to secure the
inserts 26, 32 therein. Alternatively, in which the inserts 26, 32 are formed integral with the
at least one pocket 18, the individual will choose the appropriate apparel 2 based on the
weight provided by the inserts 26, 32. It is also contemplated that the individual may use a
plurality of inserts 26 that each have a different weight and are made of a different material.

[0056] Once the inserts 26, 32 have been provided in the at least one pocket 18 of the

apparel 2, the rear surface 16 of the main body 4 of the apparel 2 may be placed against the individual's limb, such as his/her arm, leg, or torso. As the individual applies pressure to the front surface 14 of the main body 4 to keep the apparel 2 pressed against the individual's limb, the attachment portions 6, 8 may be wrapped around the individual's limb to secure the apparel 2 thereon. The attachment portions 6, 8 may be secured to one another using the fastening portions 10, 12. The attachment portions 6, 8 should be wrapped tightly around the individual's limb to ensure that the apparel 2 remains positioned on the individual's limb

during use of the apparel 2. The apparel 2 may be attached such that the longitudinal length of the apparel 2 extends along a longitudinal length of the individual's limb. For example, the longitudinal length of the apparel 2 may extend along the longitudinal length of the individual's shin from a position adjacent the individual's knee to a position adjacent the individual's ankle. It is also contemplated that the apparel 2 may be attached such that the longitudinal length of the apparel 2 extends in a transverse direction to the individual's limb. This attachment method provides a quick and efficient method of attaching the apparel 2 to the individual's limb to allow the individual to quickly attach and detach the apparel 2 to his/her limb. After the apparel 2 has been attached to the individual's limb, the individual may use the apparel 2 to increase the individual's strength and endurance by running, jumping, lifting objects, kicking sports balls, and performing other sports-related activities with the apparel 2. During use of the apparel 2, additional inserts 26, 32 may be provided in the at least one pocket 18 to increase the weight of the apparel 2. Alternatively, inserts 26, 32 may be removed to reduce the weight of the apparel 2.

The apparel 2 described hereinabove provides several advantages to an individual that are not provided with traditional stationary weight and resistance training. The apparel 2 may be used during dynamic activities specific to a target sport that includes a significant amount of movement of the individual. Incremental weight adjustments may be provided with the apparel 2 to promote speed, strength, and endurance development of an individual's limbs over a long-term training program. The individual may begin a weight training program by using a smaller amount of weight in the apparel 2 and may continue to increase the amount of weight in the apparel 2 as he/she progresses through the training program. An adjustable wrap design of the apparel 2 provides optimal comfort and safety for the individual during the dynamic training activities. The apparel 2 includes a simple method of attachment to the individual's limb to allow the individual to quickly attach and detach the apparel 2 from his/her limb. The apparel 2 also reduces the costs of manufacturing due to the apparel's 2 compact size and efficient attaching arrangement. Therefore, the appareal 2 reduces the materials costs for producing weight training apparel. Multiples sizes of the apparel 2 may also be provided to accommodate different types of individuals. The apparel 2 also provides flexibility in using standard plastic inserts to ease the transition from non-contact portions of the training program to contact portions of the training program, which may not permit the use of metal inserts. The apparel 2 is also easily portable to a wide variety of training environments and programs, unlike traditional weight and resistance training equipment that must remain in the same location due to the size and weight of the equipment.

[0058] Although the apparel 2 has been discussed hereinabove primarily in the context of sports, it is also contemplated that the apparel 2 may be used in additional situations. The apparel 2 may be utilized during an individual's rehabilitation to assist in increasing an individual's muscle mass, strength, and endurance. The apparel 2 may be worn during jogging, weight lifting exercises, or stretching exercises that are typically performed during rehabilitation to improve an individual's strength.

[0059] The preferred embodiments or aspects of the invention have been described in detail herein. However, it will be appreciated by those skilled in the art that various modifications and alternatives to the preferred embodiments or aspects may be made to the invention without departing from the concepts disclosed in the foregoing description. Such modifications are to be considered as included within the following claims unless the claims, by their language, expressly state otherwise. Accordingly, the particular embodiments or aspects described in detail hereinabove are illustrative only and are not limiting as to the scope of the invention, which is to be given the full breadth of the appended claims and any and all equivalents thereof.

What is claimed is:

1. A training apparel or arrangement for weight training, comprising:

a main body extending from a first end to a second end;

at least one attachment portion provided on the main body and configured to secure the main body to an individual's limb;

at least one pocket provided on the main body; and

at least one insert at least partially insertable into the at least one pocket of the main body and shaped to form around the individual's limb,

wherein the at least one insert provides added weight to the training apparel to assist in dynamic weight training activities performed by the individual.

- 2. The training apparel of claim 1, wherein the at least one attachment portion comprises at least one attachment portion provided on each end of the main body, wherein the attachment portions are configured to be secured to one another.
- 3. The training apparel of claim 1, wherein the at least one insert comprises a substantially concave rear surface configured to fit around or adjacent the individual's limb.
- 4. The training apparel of claim 1, wherein the at least one insert is at least partially comprised of at least one of the following: a metal, a synthetic material, a weighted material, a coated material, or any combination thereof.
- 5. The training apparel of claim 4, wherein the at least one insert is at least partially comprised of steel.
- 6. The training apparel of claim 1, wherein the at least one insert is removably insertable in the at least one pocket.
- 7. The training apparel of claim 1, wherein the at least one insert is substantially rectangular in shape and substantially corresponds to a shape of the at least one pocket.
- 8. The training apparel of claim 1, wherein the at least one pocket is comprised of an elastic material to accommodate a varying number or sizes of inserts.

9. The training apparel of claim 1, wherein the main body and the at least one attachment portion are provided as a single, integral member.

10. A training apparel or arrangement for weight training, comprising: a main body extending from a first end to a second end;

at least one attachment portion provided on the main body and configured to secure the main body to an individual's limb;

at least one pocket provided on the main body; and

at least one insert at least partially insertable into the at least one pocket of the main body,

wherein the at least one insert provides added weight to the training apparel to assist in dynamic weight training activities performed by the individual, and

wherein the at least one insert comprises a plurality of weighted members.

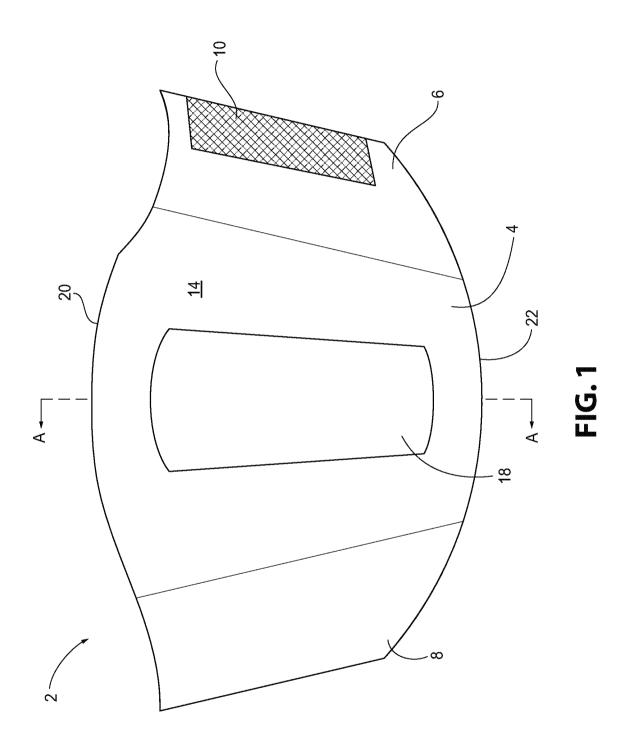
- 11. The training apparel of claim 10, wherein the weighted members are connected to one another on a string to be inserted into the at least one pocket or are directly attached to one another.
- 12. The training apparel of claim 10, wherein the at least one attachment portion comprises at least one attachment portion provided on each end of the main body, wherein the attachment portions are configured to be secured to one another.
- 13. The training apparel of claim 12, wherein each attachment portion comprises a fastening portion to secure the attachment portions to one another.
- 14. The training apparel of claim 10, wherein the at least one insert is at least partially comprised of at least one of the following: a metal, a synthetic material, a weighted material, a coated material, or any combination thereof.
- 15. The training apparel of claim 14, wherein the at least one insert is at least partially comprised of steel.
- 16. The training apparel of claim 10, wherein the at least one insert is removably insertable in the at least one pocket.

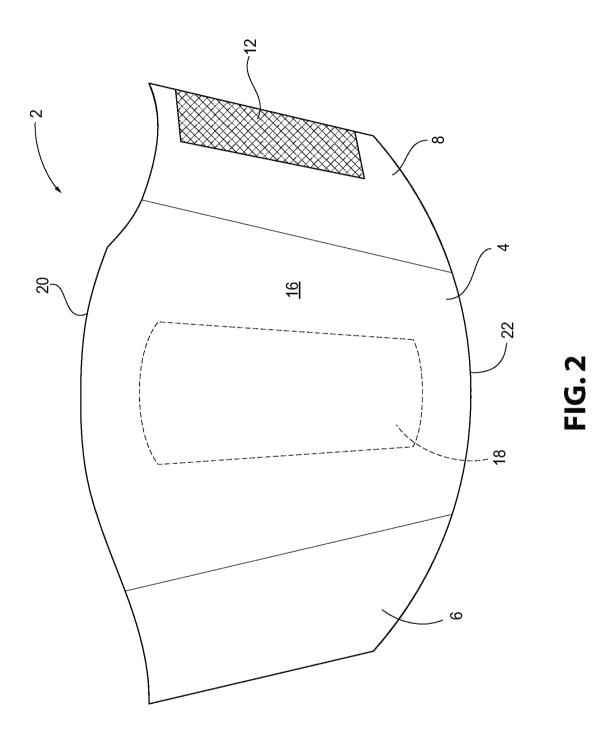
17. A method of using a training apparel for dynamic weight training, comprising:

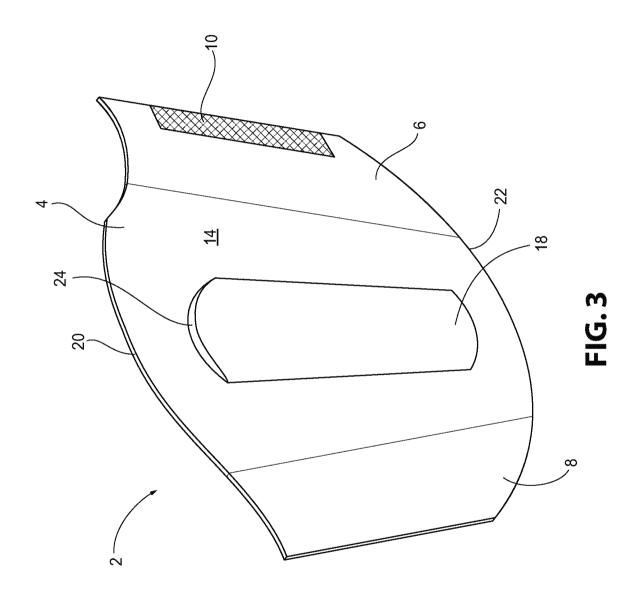
- (i) providing the training apparel, comprising a main body, and at least one pocket provided on the main body;
 - (ii) securing the training apparel to an individual's limb; and
- (iii) inserting at least one insert into the at least one pocket of the main body to provide added weight to the training apparel to assist in dynamic weight training activities performed by the individual,

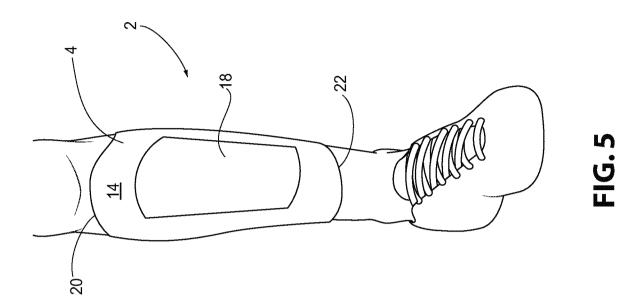
wherein the at least one insert is shaped to fit around or adjacent the individual's limb.

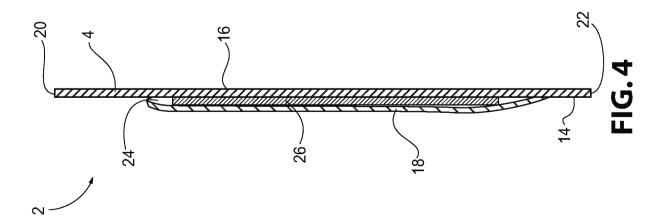
- 18. The method of claim 17, further comprising adjusting a number of inserts provided in the at least one pocket.
- 19. The method of claim 17, wherein the at least one insert comprises a substantially concave rear surface shaped to fit around or adjacent the individual's limb.
- 20. The method of claim 17, wherein the at least one insert further comprises a plurality of weighted members connected to one another on a string or directly connected to one another.

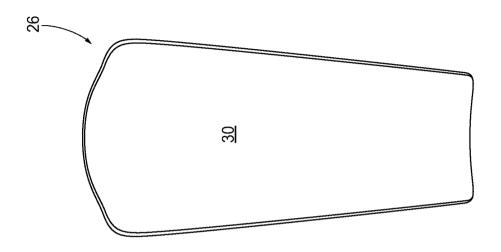




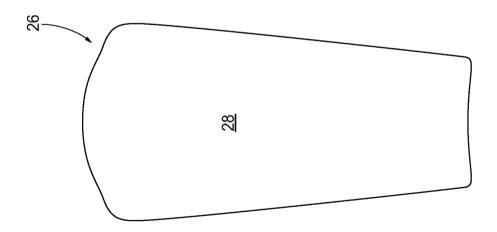




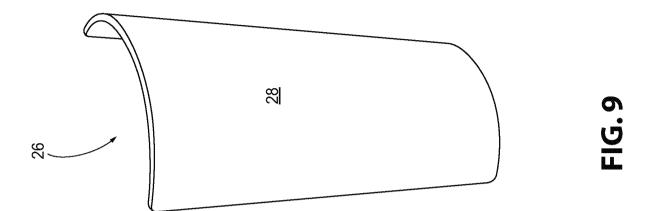


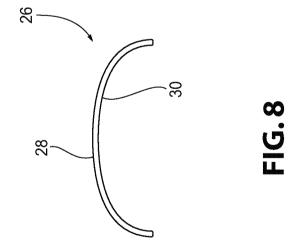


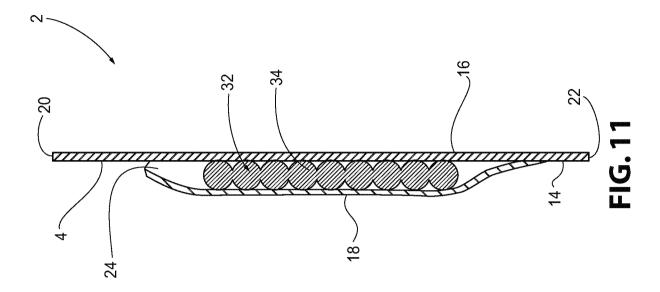


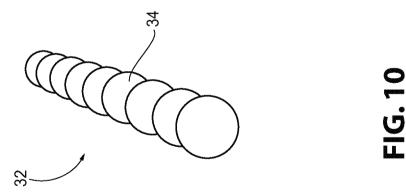


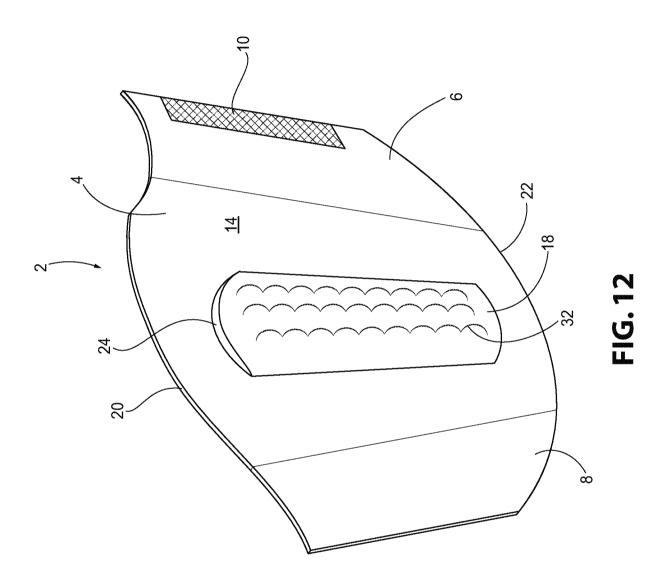
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INTERNATIONAL SEARCH REPORT

International application No. PCT/US2016/028589

A. CLASSIFICATION OF SUBJECT MATTER IPC(8) - A63B 21/065; A41D 27/20; A63B 21/06 (2016.01) CPC - A63B 21/065, A63B 21/4001, A63B 21/4011 (2016.05) According to International Patent Classification (IPC) or to both national classification and IPC			
B. FIELDS SEARCHED			
Minimum documentation searched (classification system followed by classification symbols) IPC(8) - A41D 27/20; A63B 21/06; A63B 21/065 (2016.01) CPC - A63B 21/065; A63B 21/4001; A63B 21/4011 (2016.05)			
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched USPC - 2/69; 2/126; 482/93; 482/105 (keyword delimited)			
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) PatBase, Google Patents, Google, YouTube Search terms used: training apparel, garment, fitness, exercise, pocket, weight, attach, secure, insert, removeable			
C. DOCUMENTS CONSIDERED TO BE RELEVANT			
Category*	Citation of document, with indication, where a	ppropriate, of the relevant passages	Relevant to claim No.
x	US 2011/0167533 A1 (STEWART) 14 July 2011 (14.0	7.2011) entire document	1-10, 12-19
Y			 11, 20
Υ	US 5,144,694 A (CONRAD DA OUD et al) 08 September 1992 (08.09.1992) entire document		11, 20
Α	US 2009/0111667 A1 (DIMUCCI, III) 30 April 2009 (30.04.2009) entire document		1-20
Α	US 2009/0253560 A1 (COOK) 08 October 2009 (08.10.2009) entire document		1-20
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	r documents are listed in the continuation of Box C.	See patent family annex.	
"A" docume	categories of cited documents: nt defining the general state of the art which is not considered		ation but cited to understand
to be of particular relevance "E" earlier application or patent but published on or after the international filing date		"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive	
"L" docume cited to	nt which may throw doubts on priority claim(s) or which is establish the publication date of another citation or other	step when the document is taken alone	
special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means		considered to involve an inventive step when the document is combined with one or more other such documents, such combination	
"P" document published prior to the international filing date but later than the priority date claimed		being obvious to a person skilled in the art "&" document member of the same patent family	
Date of the actual completion of the international search		Date of mailing of the international search report	
14 June 2016		15 JUL 2016	
Name and mailing address of the ISA/		Authorized officer	
Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, VA 22313-1450		Blaine R. Copenheaver	
Facsimile No. 571-273-8300		PCT Holpdook: 571 272 4300 PCT OSP: 571-272-7774	

Form PCT/ISA/210 (second sheet) (January 2015)