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Hoang

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(54) **GOLF TRAINING AID**

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(52) **U.S. Cl.**
CPC ***A63B 69/3608*** (2013.01)
USPC **473/208**; 473/215; 473/216

(58) **Field of Classification Search**
USPC 473/207, 208, 211, 215, 216
See application file for complete search history.

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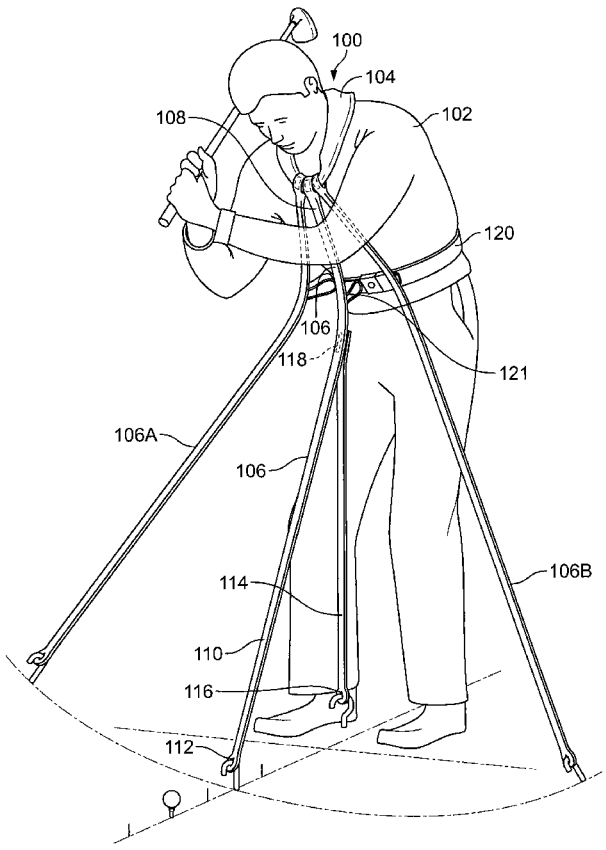
(57) **ABSTRACT**

A golf swing training device constructed of flexible material that stretches when deployed and that provides feedback to a user during golf swing execution regarding vertical head movement and shoulder movement. The device includes a collar portion, a first tension strap, and a second tension strap. The first tension strap includes a first extension portion being adapted to be disposed along a front of the user from the collar portion down toward a waist of the user and a second extension portion that is adapted to extend from the waist at the user's front to the ground at a predetermined angle. A second tension strap includes a second attachment means at one end and a third attachment means at a second end. The second attachment means is adapted for attachment to the first tension strap at the user's waist area.

9 Claims, 6 Drawing Sheets



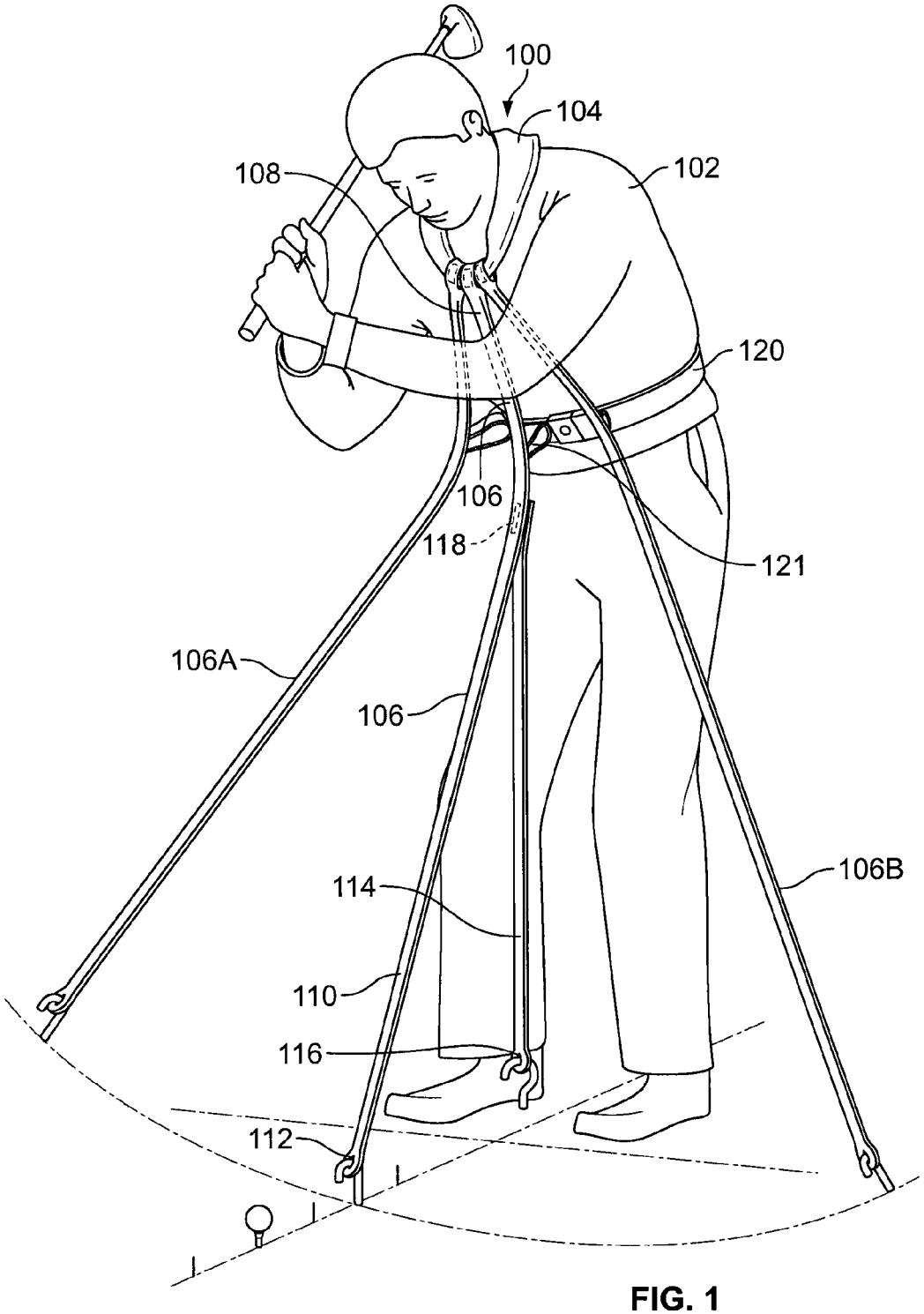


FIG. 1

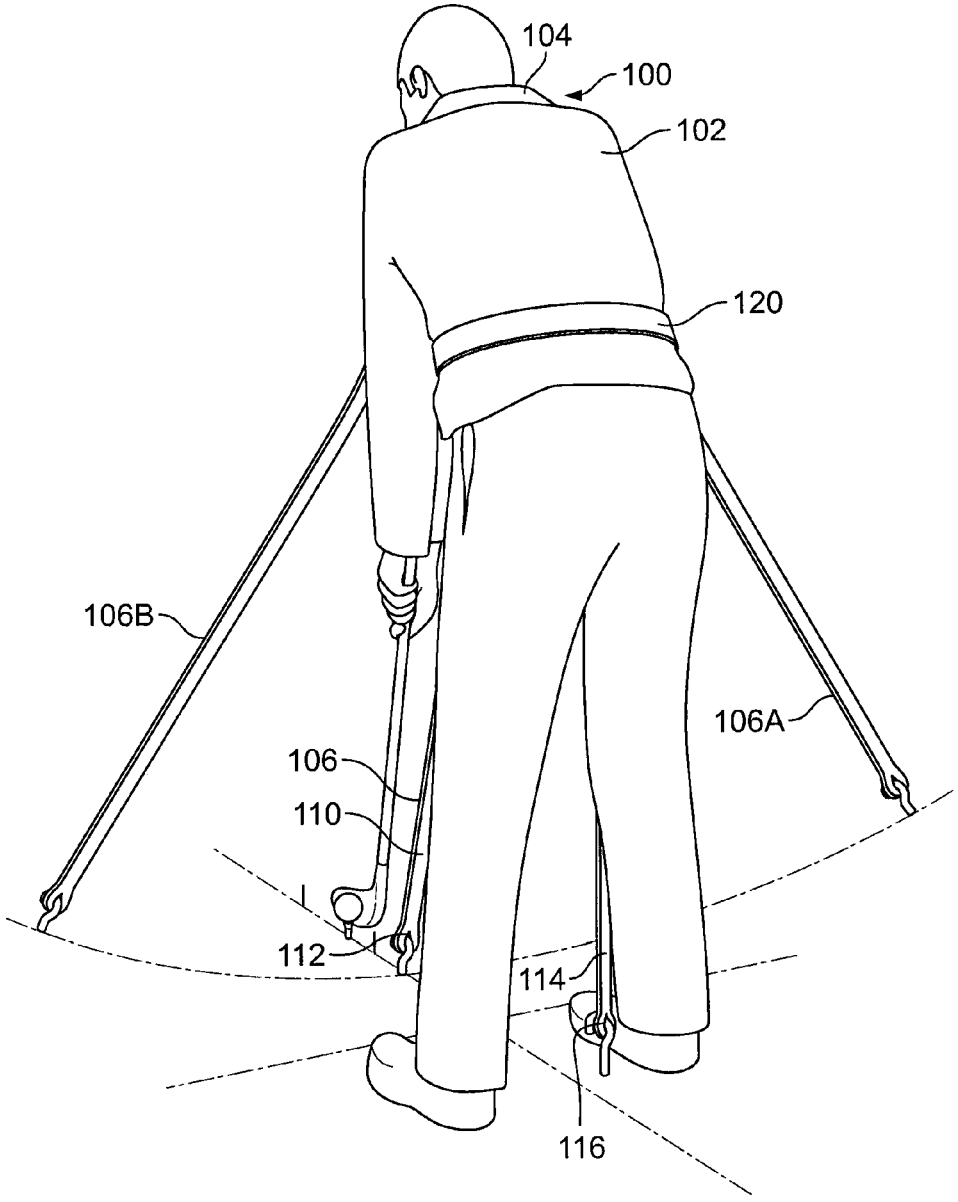


FIG. 2

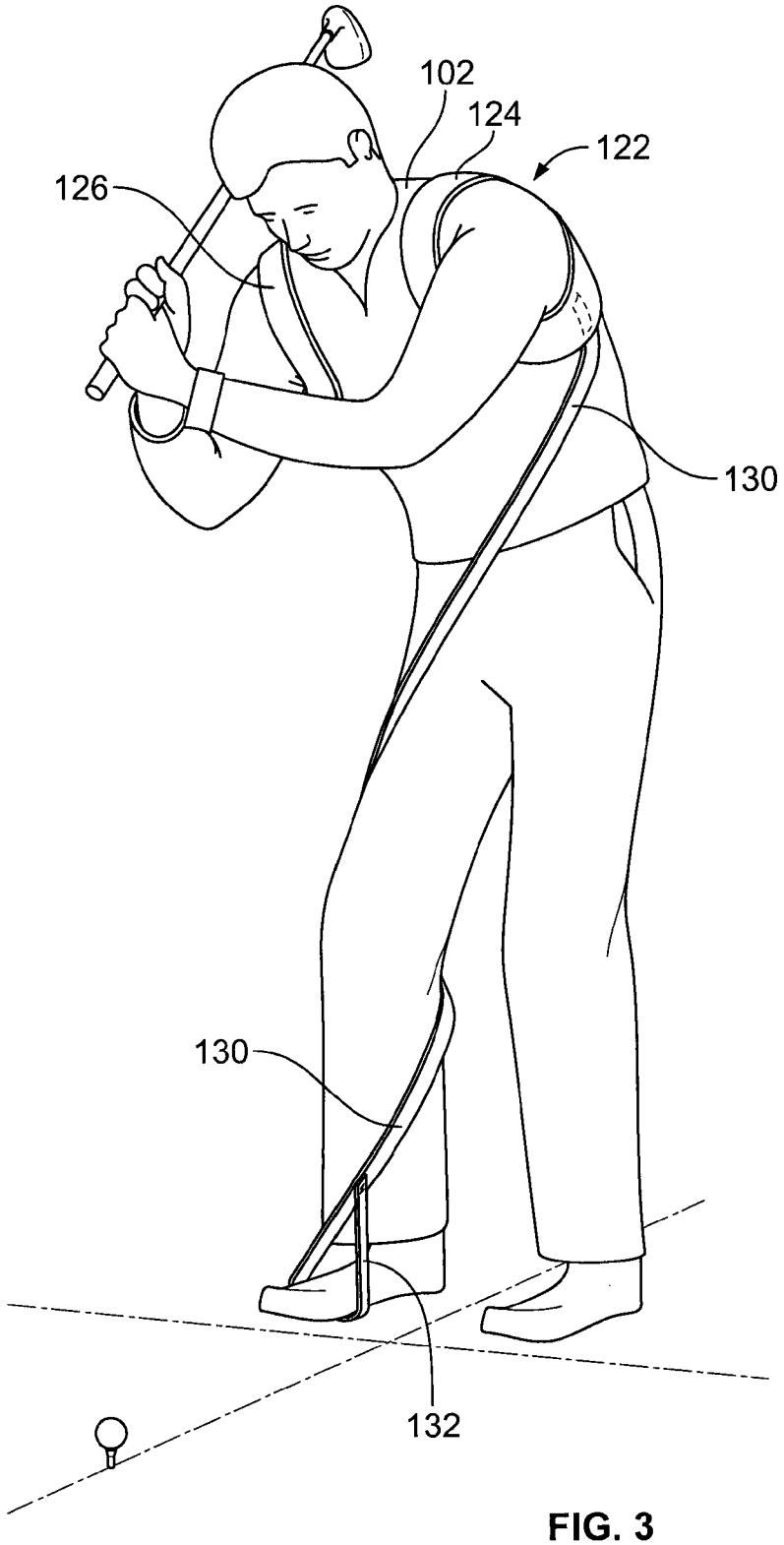


FIG. 3

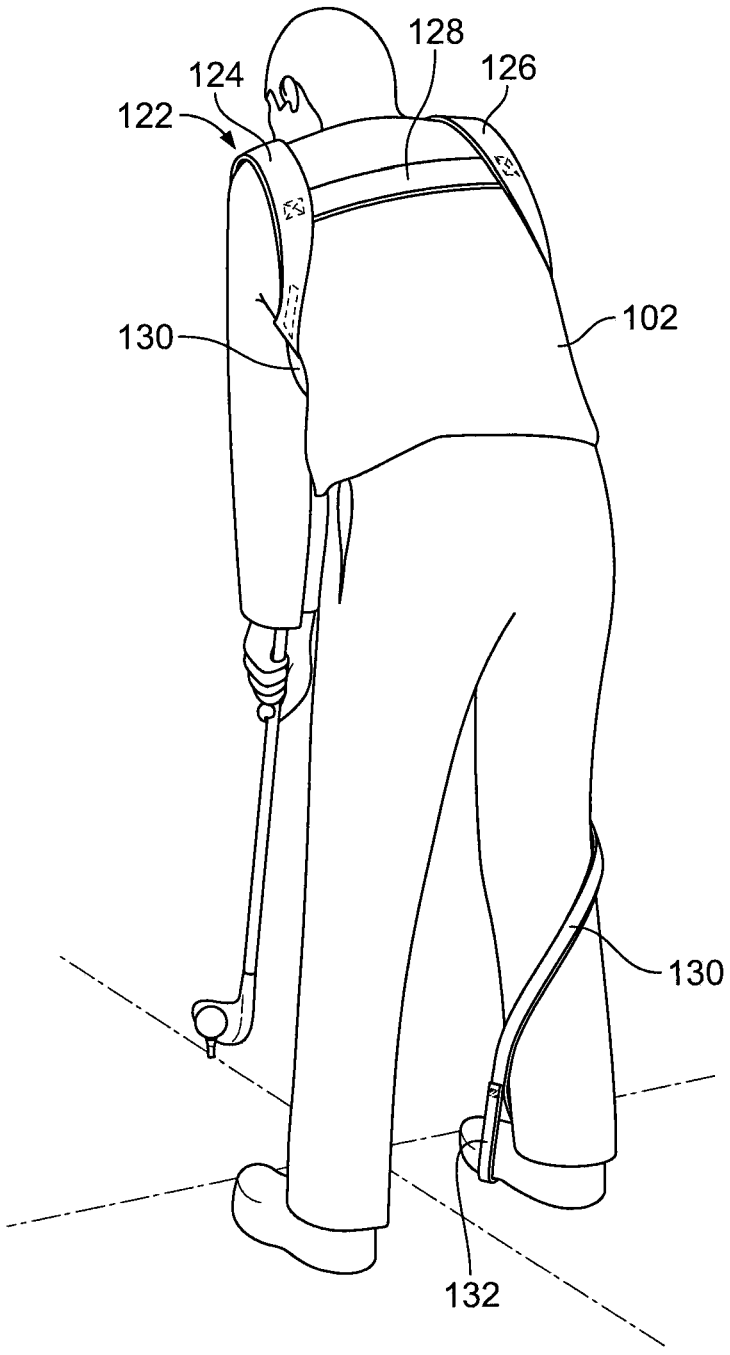


FIG. 4

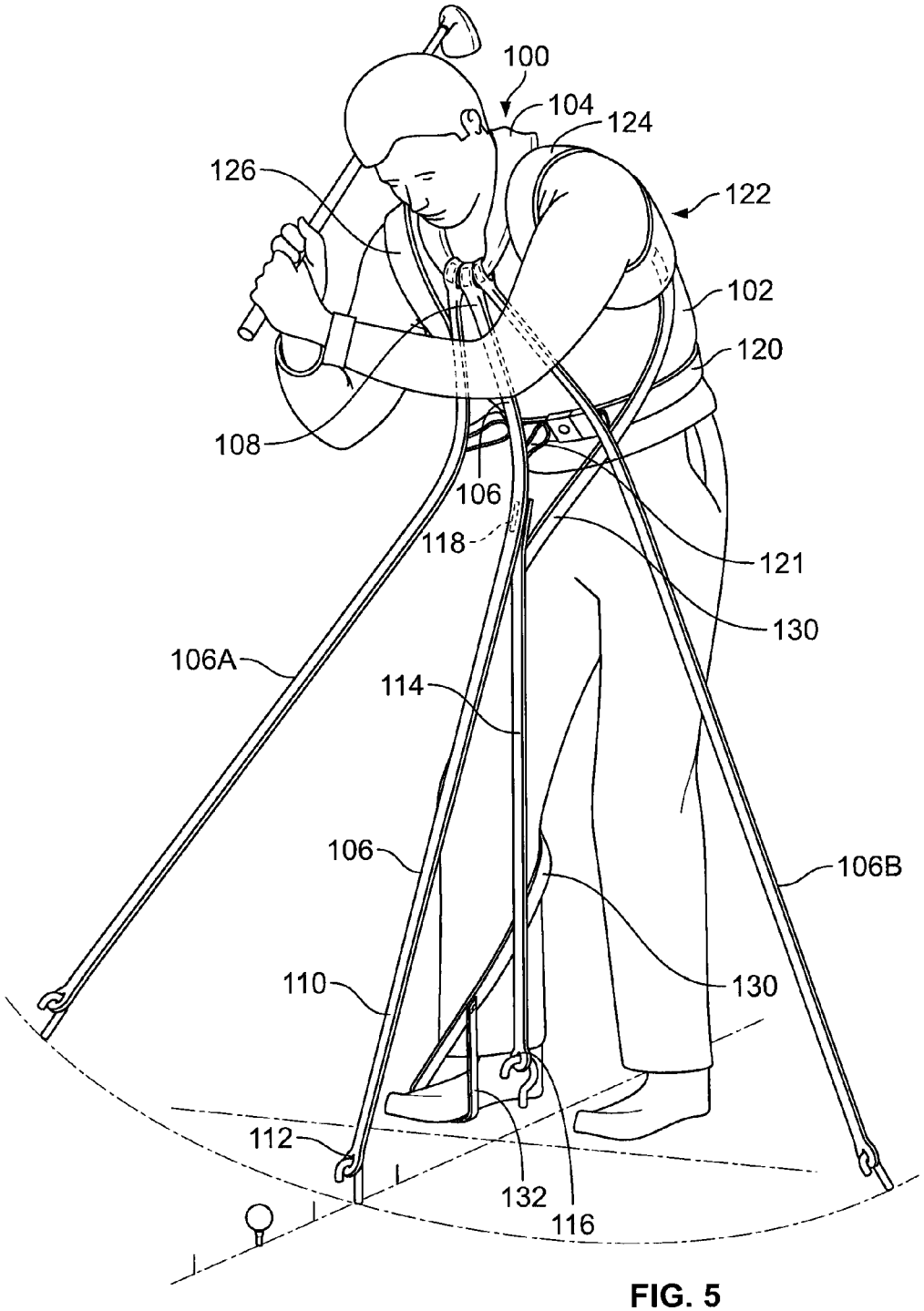

100
104
124
126
122
102
120
108
106
118
121
130
106A
114
106
106B
110
130
112
132
116

FIG. 5

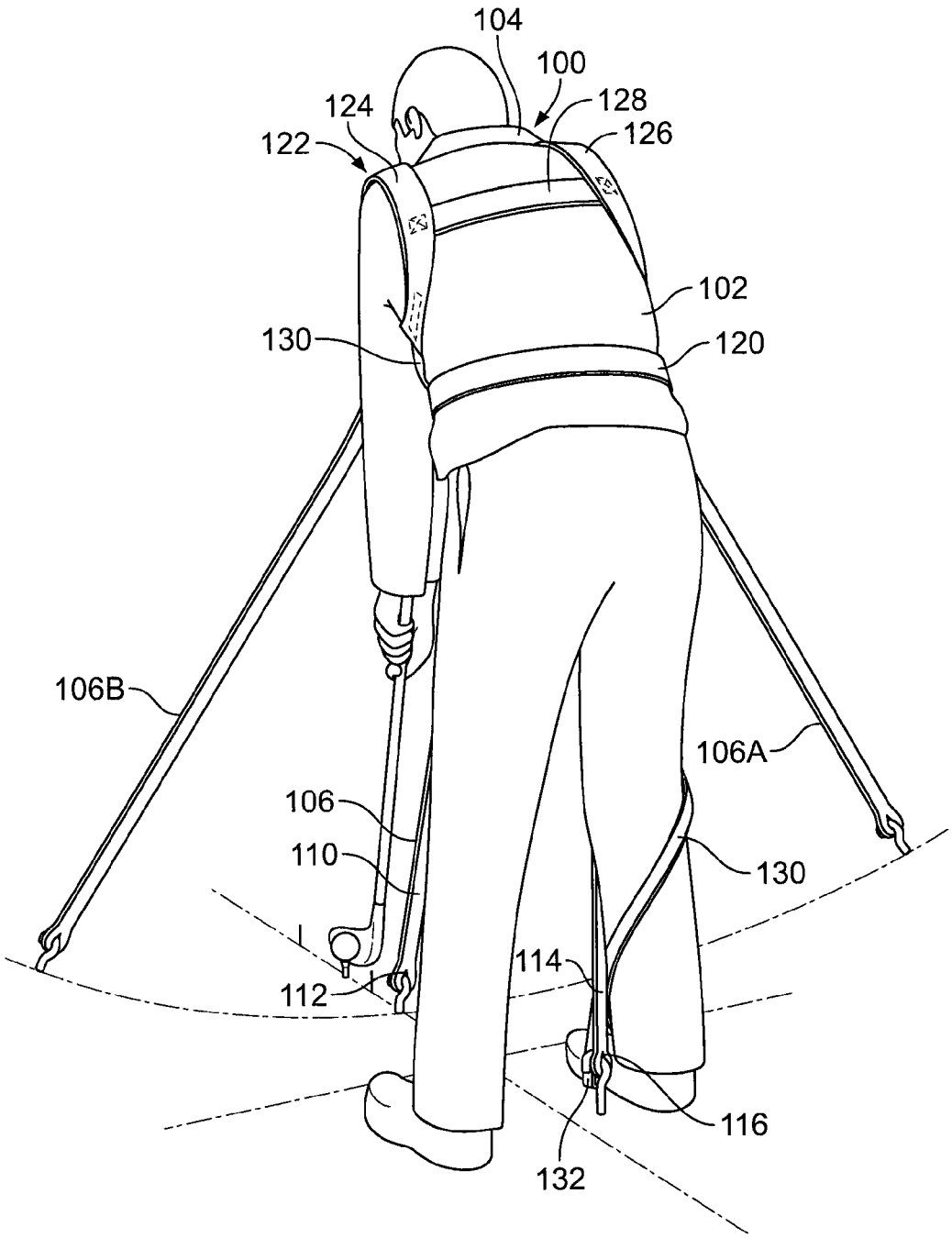

104
100
124
128
122
126
102
130
120
106B
106A
106
110
130
114
112
116
132

FIG. 6

GOLF TRAINING AID

TECHNICAL FIELD

The subject matter of this disclosure is related to golf training devices.

BACKGROUND

Golf is a popular sport played by many people around the world of all ages and skill levels. While golf can be enjoyed by anyone, golf is nevertheless a game of skill that requires practice and repetition to reach one's potential. Indeed, the pursuit of lower scores through improved swing mechanics and better "touch" or "feel" for the game is one of the most gratifying aspects of golf. Golfers work on their games in a number of ways such as playing frequent rounds of golf, spending time at the driving range and short-game practice areas, reading literature regarding swing mechanics and mental strategies, and receiving lessons from experienced golfers and golf professionals. Some golfers' practice is facilitated by various training aids that encourage proper swing mechanics.

SUMMARY

The subject matter of this disclosure relates to golf training aids. In general, in one aspect, a training device is disclosed that includes a collar portion sized for placement around a neck of a user, and a first tension strap coupled at one end to the collar portion and including a first attachment means at a second end for attachment to ground. The first tension strap includes a first extension portion being adapted to be disposed along a front of the user from the collar portion down toward a waist of the user and a second extension portion that is adapted to extend from the waist at the user's front to the ground at a predetermined angle. A second tension strap includes a second attachment means at one end and a third attachment means at a second end. The second attachment means is adapted for attachment to the first tension strap at the user's waist area. The third attachment means is adapted for attachment of the second tension strap to ground. The training device is configured such that during swing execution the first and second tension straps provide feedback to the user when a head of the user moves up or down while simultaneously enabling the user to complete the swing without interference from either the first or second tension straps.

Embodiments of the subject matter can include one or more of the following features. The collar portion can include a halo that includes a padded portion in an area adjacent to a user's neck. The first and second tension straps can be elastic. The first and third attachment means can include stakes or spikes.

In some implementations, the training device includes a shoulder portion including a first shoulder cuff and a second shoulder cuff. A third tension strap can couple the first and second shoulder cuffs along a back of the user. A foot portion and a fourth tension strap can also be included. The fourth tension strap can be adapted for coupling to the first shoulder cuff that is positioned on a leading shoulder of a user and extend to the foot portion that is coupled to a user's opposing foot. The fourth tension strap can be adapted for extending across the user's chest and abdomen, wrapping around the user's upper leg and lower leg before attaching to the foot portion. The foot portion can be a cuff. The third and fourth tension straps can be adapted to provide feedback to the user during golf swing execution related to shoulder turn.

In some implementations, the training device can further include a belt portion at a waist of the user and a proximity tension strap coupled at the belt portion and to a junction formed between the first and second tension straps so as to maintain a portion of the first tension strap that is positioned down a front of the user between the collar portion and the belt portion in close proximity to a body of the user.

Embodiments of the disclosed subject matter can realize none, one or more of the following advantages. The training device can be easily adjusted to fit any size user and configured to apply a desirable amount of tension to provide optimal feedback to the user. The training device can be deployed for either right-handed or left-handed golfers. The training device can be easily deployed or disassembled for compact storage. For example, the components of the training device can be made to fit within a pouch or other compartment of a standard golf club bag so that the device may be readily accessible wherever the user takes his/her golf bag and clubs.

DESCRIPTION OF DRAWINGS

FIG. **1** depicts an example training device being worn by a user in a golf stance.

FIG. **2** depicts a rear view of the example training device of FIG. **1** being worn by the user.

FIG. **3** depicts an example shoulder training assembly being worn by a user.

FIG. **4** depicts a rear view of the example shoulder training assembly of FIG. **3** being worn by the user.

FIG. **5** depicts an example training device including an example shoulder training assembly being worn by a user.

FIG. **6** depicts a rear view of the example training device including the example shoulder training assembly being worn by the user.

Like reference symbols in the various drawings indicate like elements.

DETAILED DESCRIPTION

In general, the subject matter disclosed herein describes a training device constructed of a flexible material that can be worn by a user in a manner that resists the user's movement or otherwise provides feedback when the user makes, for example, an improper golf swing. Particularly, the device is configured to provide resistance when the user raises his/her head and does not properly bend his/her waist in accordance with a desired golf swing action. In particular embodiments, the device can also encourage the user to sufficiently rotate her shoulders during the swing. That is, when a user attempts to execute a golf swing with improper mechanics, such as by raising her head during the backswing, the user will feel resistance at one or more locations such as at the user's neck or waist. Likewise, if a user does not properly rotate her shoulders and/or properly lower her leading shoulder during a backswing, then the user will feel tension on the leading shoulder that encourages the user to properly rotate her shoulders during the backswing portion of her swing in a manner that promotes desired swing mechanics. Over time, use of the training device can improve the user's golf swing by creating muscle memory of a proper golf swing through numerous golf swing repetitions while wearing the golf training device and adjusting one's swing so as to reduce the resistance from the device. In some implementations, the golf training aid can be constructed substantially of neoprene, nylon, or other flexible or elastic materials, and/or combinations of these.

Referring now to FIG. **1**, an example training device **100** is shown being worn by a user **102**. In general the training

device **100** is configured to be worn primarily along a front side of the user **102**. The training device **100** includes a number of different components that interact with each other so as to provide resistive feedback to the user **102** when performing a golf swing. For instance, the training device **100** is shown as including a collar portion **104** that sits around the neck of the user **102**, a first tension strap **106** that is coupled at one end to the collar portion **104**, and that is coupled at a second end to ground by way of a first attachment means **112**. The first tension strap **106** generally resists the user **102** from standing taller during the golf swing and vertically raising her head.

In some implementations, the first tension strap **106** includes a first extension portion **108** and a second extension portion **110**. The first extension portion **108** of the first tension strap **106** is shown as extending from the collar portion **104** down to a waist of the user **102**. The second extension portion **110** of the first tension strap **106** extends out in front of the user **102** and connects to the ground. In some implementations, the second extension portion **110** of the first tension strap **106** extends from the waist of the user toward the ground at a predetermined angle in order to encourage the user **102** to stand in a proper golf stance. For example, the first tension strap **106** can create resistance at both the waist and neck of the user **102** in order to encourage the user **102** to properly lower her head and to bend her waist at a preferred angle during execution of the golf swing.

The training device **100** also generally includes a second tension strap **114** that is coupled at one end to the second extension portion **110** of the first tension strap **106** in front of the user **102** using a second attachment means **118**, and is coupled at a second end to ground using a third attachment means **116**. The example training device **100** depicted in FIG. **1** is shown being used by the user **102** that swings right-handed. However, other implementations may also be configured for use by left-handed golfers.

The training device **100** can include a number of different components that can be attached to each other so as to restrict certain motion of the user **102** when executing a golf swing and to promote desired swing mechanics such as the ability to stay vertically level during the swing without raising one's head, and to keep one's waist bent at a proper angle. The first tension strap **106** and second tension strap **114** can be constructed using a flexible material that provides resistance when stretched. As a result, when the user **102** wearing the device **100** executes a golf swing with improper swing mechanics, such as by failing to stay level during the course of the swing or not properly bending at the waist, the flexible material of the first and second tension straps **106** and **114**, respectively, can tighten and thereby provide feedback to the user **102** about the improper swing mechanics. The user **102** can then make appropriate corrections in her swing to avoid encountering resistance from the training device **100**. By causing the user **102** to avoid resistance during her swing, the training device **100** thereby promotes proper swing mechanics.

In some implementations, a user **102** can at first be trained to use the training device **100** by a swing expert such as a golf teaching professional. Initial training on the training device **100** with a swing expert may be beneficial to the user **102** to ensure that the various components of the training device **100** are optimally or otherwise properly fitted and worn by the user. For instance, depending on the size of a user **102** or variations among particular users' stances in addressing a golf ball, or other particularities of a user's swing, the training device **102** may be configured for individual users **102** to achieve optimal results. As one example, respective elastic properties of the first tension strap **106** and second tension strap **114** can be selected so as to achieve certain feedback characteristics for the user **102**. Fit, for example, can be adjusted by shortening one or more of the tension straps that are provided. In some implementations, a highly elastic configuration may be used that does not prevent the user **102** from moving within a range that deviates from ideal swing mechanics, but that nonetheless provides the user **102** with some measure of resistance to the improper motion so that the user **102** can feel such resistance and strive to minimize or eliminate tension from the training device **100**. In some implementations, a less elastic configuration may be used in which the first and second tension straps **106**, **114** do not stretch an appreciable distance so that the user **102** is prevented from moving outside of proper swing positions an appreciable distance when the training device **100** is properly used. Because the user **102** receives feedback in the form of resistance (for both less and more elastic tension straps **106** and **114**), the user's motion is somewhat restricted, so as to encourage/promote proper swing mechanics. For example, the more the user **102** attempts to raise her head or stand upright with her waist not properly bent, the more resistance the user **102** will feel as she executes her golf swing, and hence the more feedback she will receive.

In some implementations, the training device **100** includes the collar portion **104** to fit around the user's **102** neck and to communicate resistive feedback to the user **102** when she raises her head and begins to stand taller during a golf swing. When deployed, the collar portion **104** is coupled to the first tension strap **106** at the front of the collar portion **104** such that the user can feel on her shoulders and around her neck if she begins to raise her head during the swing, which can lead to a number of problems such as "topping" the golf ball and otherwise making inconsistent contact between the club and the ball. The collar portion **104** can be configured to fit snugly around the user's **102** neck without uncomfortably restricting the user **102**. The collar portion **104** may be sufficiently taught such that the user **102** can feel when she moves outside of a proper swing position, but is not so restrictive to prevent the user **102** from completing a full turn during the golf swing with proper swing mechanics. The collar portion **104** can be constructed of a substantially rigid ring piece that is lowered over the user's **102** head and that is configured to contact the user's **102** neck and shoulders, and rest on the back of her neck and upper shoulder area. For example, the collar portion **104** can be constructed of a suitable plastic material such as nylon or polyvinyl chloride. For added comfort, a soft padding material may be used to cover the rigid collar material such as foam, neoprene, or a cloth material. For example, the collar portion **104** may include a halo that has a padded portion adjacent to the user's neck. In some implementations, the collar portion **104** may be constructed to wrap around the user's neck without being placed over the user's head. For example, a flexible material may be used to bend around the user's neck, and a fastening means can be used to connect the ends of the collar portion **104** on the front side of the user **102** with the first tension strap **106**.

The first tension strap **106** is shown in FIG. **1** as being attached between the collar portion **104** and a point on the ground a determined distance in front of the user **102**. When worn by the user **102**, the first extension portion **108** of the first tension strap **106** generally extends down the front of the user and to the front of the user's waist. The second extension portion **110** of the first tension strap **106** then extends from the user's waist to ground. The ground end of the first tension strap **106** can include the first attachment means **112** for securing the ground end of the first tension strap **106** to the

ground. In some implementations, the first attachment means **112** can be, for example, a loop or other opening at the ground end of the strap **106** that receives a stake, spike, or other object that is configured to be secured to the ground. The first attachment means **112** is operable to secure the first tension strap **106** to the ground so as to withstand the forces incurred while the user **102** performs a golf swing. The first attachment means **112** is also sufficiently secured to the ground to withstand tension forces in the first tension strap **106** resulting from improper swing mechanics such as the user **102** raising her head during a swing or standing with her waist bent at an improper angle, which can exact forces on the first tension strap **106** away from the ground. The first attachment means **112** can be attached to the ground generally near the center of the user's stance between the user's **102** legs and a predetermined distance (e.g., two to three feet) in front of the user **102**. The precise positioning of the first attachment means **112** may vary based on a number of factors including the user's height, a preferred posture or stance of the user **102**, and the particular club being used with the training device **100**. For instance, with longer clubs like a driver, the user **102** may adopt a taller stance and position the first attachment means **112** at a first location (e.g., further) relative to the user **102** whereas with a shorter club such as a pitching wedge, the first attachment means **112** can be positioned at a second location (e.g., closer) to the user **102**. The first attachment means **112** can also be positioned so as not to interfere with a swing path of a golf club held by the user **102** during a golf swing. In some implementations, the first attachment means **112** can be positioned relative to a golf ball or golf tee to ensure that the user **102** stands at a proper distance from the golf ball or golf tee.

Opposite the ground end, the first tension strap **106** is attached to the collar portion **104**. The first tension strap **106** can be attached to the collar portion **104** near the front of the user's **102** neck near the top of the user's **102** chest. As shown in FIG. **1**, the first tension strap **106** is generally fastened at one location to the collar portion **104**. An attachment means adapted to receive and secure the first extension strap **106** and the collar portion **104** may be used to couple the first strap **106** to the collar portion **104**, such as with a clip, fastener or a metal or plastic piece that binds the ends of each piece together. Alternative attachment configurations between the first strap **106** and the collar portion **104** are also possible. For example, the collar portion **106** can be stitched or glued to the end of the first tension strap **106**, or a quick-release connector may be employed for easy connection and disassembly of the first tension strap **106** and the collar portion **104**. Other attachment means may be used such as one or more of nylon fabric fasteners, plastic clips, or combinations of these.

The first tension strap **106** may be generally constructed of a flexible and elastic material capable of stretching along its length. The first tension strap **106** can be stretched when worn by the user **102** so as to maintain tension at the user's **102** shoulders and/or neck so that the user can feel increased resistance as she, for example, raises her head and stands too upright during any portion of her golf swing. Suitable materials can include one or more of rubber, polymer-based materials, or fabric, and can be generally elastic.

The second tension strap **114** is configured to be worn by the user **102** by attaching to a point on the second extension portion **110** of the first tension strap **106** and extending substantially vertically down to ground in proximity to the user **102** when the user is in a golf stance. When deployed, the second tension strap **114** generally encourages the user **102** to stand a proper distance away from a golf ball or golf tee such that the second extension portion **110** of the first tension strap **106** extends away from the waist of the user **102** at a proper angle. In some implementations, the second tension strap **114** can create additional resistance to encourage the user **102** to keep her head lowered during a golf swing and to bend her waist at a proper angle.

The second tension strap **114** can be constructed of a flexible material capable of stretching along its length. Suitable materials for the second tension strap **114** include rubber, polymer-based materials, fabric, or any combination of such materials. The first end of the second tension strap **114** can include a second attachment means **118** for fastening the first end of the strap **114** to the first tension strap **106**. Some implementations of the second attachment means **118** can include one or more of nylon fabric fasteners, plastic clips, quick-release clips, and the like, or a combination thereof. In some implementations, the second attachment means **118** can non-detachably attach the second tension strap **114** to the first tension strap **106** such as, for example, through use of stitching, gluing, bolting, or the like. The second attachment means **118** is configured to withstand the forces normally experienced by a user **102** executing a golf swing with proper or improper mechanics, without breaking from a located position on the first tension strap **106**. A third attachment means **116** is located at a second end of the second tension strap **114** for securing the second end of the second tension strap **114** to the ground. The third attachment means **116** can be implemented similarly or differently from the first attachment means **112** of the first tension strap **106**. The third attachment means **116** is configured to hold the second end of the second tension strap **114** near the ground, and may include or be connected to a stake or spike that has been driven into and lodged in the ground. The third attachment means **116** may also be coupled, such as by fastening to, looping around, or hooking onto, any number of other objects that provide stability at or near ground level as the user **102** executes a golf swing.

The third attachment means **116** can be attached to the ground generally near the center of the user's stance between the user's **102** legs. In some implementations, the third attachment means **116** is positioned such that the second tension strap **114** extends vertically down from the first tension strap **106** to ground. In some implementations, the third attachment means **116** is positioned between the feet of the user **102**. The precise positioning of the third attachment means **116** may vary based on a number of factors including the user's **102** height, a preferred posture or stance of the user **102**, the position along first tension strap **106** at which the second tension strap **114** attaches to the first tension strap **106**, and/or the particular club being used with the training device **100**. In some implementations, the third attachment means **116** can be positioned relative to a golf ball or golf tee to ensure that the user **102** stands at a proper distance from the golf ball or golf tee. In some implementations, the third attachment means **116** can be positioned relative to the first attachment means **112** to ensure that the user **102** bends her waist at a desired angle, to ensure that the user **102** stands a proper distance from a golf ball or golf tee, or to ensure that the second extension portion **110** of the first tension strap **106** extends to ground at a desired predetermined angle.

Each of the first tension strap **106** and the second tension strap **114** may be constructed of a substantially continuous material along its length, or may be comprised of two or more connected pieces. Each of the first and second tension straps **106** and **114** may also include means for adjusting their respective lengths. For example, a ladderlock strap adjuster can be provided for the user **102** to adjust the lengths of the first and second tension straps **106** and **114** to suit her needs.

In some implementations, the training device **100** can also include a belt **120** that fits around the waist of the user **102**. The belt **120** can secure the first tension strap **106** to the user **102** so that the first tension strap **106** remains in proximity to (e.g., pressed against) a front side of the user **102** while the user **102** executes one or more golf swings. In some implementations, the belt **120** can be worn such that a portion of the first tension strap **106** is held between the belt **120** and the user **102** in order to cause the first extension portion **108** of the first tension strap **106** to extend along a portion of the front side the torso of the user **102**. In some implementations, the belt **120** can pass through a first pass-through region in the first tension strap **106**. The first pass-through region can be of the form of an opening or loop in the first tension strap **106** that allows the belt **120** to pass through, thereby engaging the belt **120** with the first tension strap **106**. Any suitable opening capable of receiving the belt **120** and to hold the first tension strap **106** against the user **102** may be used. For example a second layer of flexible material can be stitched at its ends to a first layer of the first tension strap **106** such that the belt **120** can be fed through a gap between the stitched ends. In some implementations, the second attachment means **118** at the first end of the second tension strap **114** may also be configured to attach to the belt **120** near the user's waist rather than at a point along the first tension strap **106** that is in front of the user **102**.

In some implementations, the training device **100** can also include a proximity tension strap **121** that is attached to the belt **120** at one end and attached to the first tension strap **106** at a second end. In some implementations, the second end of the proximity tension strap **121** is attached to a junction of the first tension strap **106** and the second tension strap **114**. The proximity tension strap **121** can be positioned such that the junction of the first tension strap **106** and the second tension strap **114** is a desired distance away from the user **102**. For example, the proximity tension strap **121** can be of a short length, and positioned such that the junction of the first tension strap **106** and the second tension strap **114** is within close proximity to the body of the user **102**. As another example, the proximity tension strap **121** can be positioned such that the first extension portion **108** of the first tension strap **106** is positioned down the front of the user **102** in close proximity to the user **102**. The proximity tension strap **121** may be generally constructed of a flexible or elastic material capable of stretching along its length. Suitable materials can include one or more of rubber, polymer-based materials, or fabric, and can be generally elastic. In some implementations, the proximity tension strap **121** can be implemented as a separate strap from the first and second tension straps **106** and **114**. In some implementations, the proximity tension strap **121** can be implemented as a portion of the first tension strap **106** that extends between the user **102** and the junction of the first tension strap **106** and the second tension strap **114**. In some implementations, the proximity tension strap **121** can be implemented as a flexible portion of the belt **120** that attaches to the first tension strap **106**, the second tension strap **114**, or both.

In the example depicted in FIG. **1**, the belt **120** is positioned such that the first tension strap **106** creates an angle at the user's waist. In some implementations, a predetermined angle of the first tension strap **106** can be selected such that the user **102** bends her waist at a proper angle during a golf swing. The training device **100** can be configured such that if the user **102** does not bend her waist at a proper angle, the first tension strap **106** will create resistance in order to encourage the user **102** to bend her waist at the proper angle. In some implementations, the belt **120** can be positioned at other places on the body of the user **102**, such as at the user's hips. In some implementations, rather than using a belt to create the angle in the first tension strap **106**, the angle can be created through other means. For example, the first tension strap **106** can attach to the user **102** through use of a jacket, vest, or shirt. For example, a portion of the first tension strap **106** can attach to a vest worn by the user **102** in order to create the angle formed by the first extension portion **108** and the second extension portion **110** of the first tension strap **106**.

In some implementations, the training device **100** can include additional training tension straps anchored to ground. For example, the training device **100** can include a right tension strap **106**A and a left tension strap **106**B. Both the right tension strap **106**A and the left tension strap **106**B are anchored to the ground at one end and anchored to the collar portion **104** at an opposite end. The right and left tension straps **106**A and **106**B can provide extra stability for the training device **100** to ensure that the user **102**, for example, does not improperly raise her head during a golf swing. Similar to the first tension strap **106**, the right and left tension straps **106**A and **106**B can each include an upper extension portion that is in close proximity to the body of the user and a lower extension portion that extends to ground. The right and left tension straps **106**A and **106**B can be anchored to ground in a manner similar to those described above for the first tension strap **106** and the second tension strap **108**.

FIG. **2** shows a rear view of the example training device **100**. As described above with respect to FIG. **1**, the training device **100** can include a first tension strap **106**, a second tension strap **114**, and a collar portion **104**. The training device **100** can additionally include a belt **120** for securing a portion of the first tension strap **106** within close proximity to the body of a user **102**. The device **100** is configured to be worn by the user **102** to promote proper golf swing mechanics including minimal vertical movement (i.e., not raising one's head), and a proper waist angle during a golf stance.

With reference to FIGS. **3** and **4**, an example shoulder training assembly **122** that can be used to improve a user's shoulder turn when making a golf swing is shown. The shoulder training assembly **122** can be used as part of the training device **100** as described above with respect to FIGS. **1** and **2**.

FIGS. **3** and **4** show the user **102** wearing the shoulder training assembly **122** that includes a shoulder portion having a first shoulder cuff **124** and a second shoulder cuff **126**, a third tension strap **128** coupling the first and second shoulder cuffs **124** and **126**, a foot portion **132**, and a fourth tension strap **130**. In some implementations, the shoulder training assembly **122** can be worn and used by the user **102** with or without the training device **100** described above. For instance, if a user **102** is particularly interested in practicing the shoulder turn aspects of swing mechanics, then the user **102** could use the shoulder training assembly **122** by itself or with a subset or all of the components of the training device **100**.

The first shoulder cuff **124** fits around the user's **102** leading shoulder (left shoulder for a right-handed golfer, right shoulder for a left-handed golfer), and the second shoulder cuff **126** fits around the user's **102** opposite shoulder. The shoulder cuffs **124** and **126** can each slide up a respective arm of a user, with a top portion of the shoulder cuffs **124**, **126** lying over the user's **102** respective shoulders and circling under and around the user's **102** respective arms. Each of the first shoulder cuff **124** and second shoulder cuff **126** can be constructed of a soft, flexible material such as a suitable fabric or neoprene rubber. The first and second shoulder cuffs **124** and **126** are coupled by a third tension strap **128** that runs along the back of the user **102** when deployed. The third tension strap **128** may be stitched, glued, or otherwise con-

nected to the first and second shoulder cuffs **124**, **126**. In some implementations, the third tension strap **128** may be removably attached by using, for example, buttons, clips, or a nylon fabric fastener. As the user wears the shoulder training assembly **122**, the third tension strap **128** is pulled taught between the user's **102** shoulders to help keep the user's shoulders together and pulled back in a proper golf swing position. The third tension strap **128** also facilitates the user's **102** efforts to rotate the shoulders together during a golf swing.

The shoulder training assembly **122** can also include a fourth tension strap **130**. When deployed, the fourth tension strap **130** can ensure that the user **102** properly rotates her shoulders during a backswing of a golf swing by creating resistance on the user's **102** leading shoulder. As the fourth tension strap **130** is stretched, tension builds in the strap **130**, and as one end of the strap **130** can be attached to the first shoulder cuff **124**, the tension is communicated to the user's **102** leading shoulder. The tension in the fourth tension strap **130** reduces as the user **102** enters a backswing of a golf swing, thereby encouraging the user **102** to properly rotate her shoulders during the backswing. If the user **102** does not properly rotate her shoulders during the backswing, the user receives feedback from the should training assembly **122** in the form of resistance imparted on the leading shoulder of the user **102** by the shoulder cuff **124** and the fourth tension strap **130**. In some implementations, reduction of resistance imparted on the leading should of the user **102** as the user **102** properly rotates her shoulders during the backswing indicates to the user **102** that she is properly rotating her shoulders during the backswing.

The fourth tension strap **130** can extend from the first shoulder cuff **124**, down a side of the user **102** (i.e., left side for a right-handed golfer, right side for a left-handed golfer), then across the chest and abdomen of the user **102**, and wrap none, one, or more times around the user's back leg (i.e., right leg for a right-handed golfer, left leg for a left-handed golfer). For example, the fourth tension strap **130** can wrap once around the user's **102** upper leg and once around the user's **102** lower leg. In the implementation shown, the fourth tension strap **130** is attached to the first shoulder cuff **124** at the bottom of the first shoulder cuff **124**. In some implementations, the fourth tension strap **130** can be attached to the first shoulder cuff **124** at other portions along the first shoulder cuff **124**. For example, the fourth tension strap **130** can attach to the front of the first shoulder cuff **124** such that the fourth tension strap **130** extends diagonally across the chest of the user **102**.

The second end of the fourth tension strap **130** can terminate at or near the user's **102** back foot. For example, as shown in FIGS. **3** and **4**, the fourth tension strap **130** includes a foot portion **132** in the form of a loop at its end that receives the user's **102** back foot in order to secure the second end of the fourth tension strap **130** near ground and to resist the tension strap **130** from releasing as the user **102** rotates during a golf swing. The foot portion **132** can also be implemented by other means to secure the second end of the fourth tension strap **130** to the user's back foot or to ground in proximity to the position of the user's back foot such as the means described above with respect to the first and third attachment means **112** and **116**, respectively. The foot portion **132** can be a cuff in some implementations.

In some implementations, the fourth tension strap **130** can also be configured to be worn by the user **102** in a manner that extends from the user's **102** leading shoulder, across the user's **102** back, and to then wrap around the user's **102** upper and lower leg opposite the user's **102** leading shoulder. In some implementations, the shoulder training assembly **122** can be configured to encourage proper shoulder rotation during a forward swing portion of a golf swing, for example, by reducing resistance as the user **102** rotates her shoulders during the forward swing. In each of the described implementations of the shoulder training assembly **122**, the third tension strap **128** and fourth tension strap **130** are each configured to provide feedback to the user related to shoulder turn during a golf swing.

The third and fourth tension straps **128** and **130** may each be generally constructed of a flexible or elastic material capable of stretching along its length. Suitable materials can include one or more of rubber, polymer-based materials, or fabric, and can be generally elastic.

Referring now to FIGS. **4** and **5**, a user **102** is shown utilizing both the training device **100** and the shoulder training assembly **122** at the same time. The training device **100** and shoulder training assembly **122** are configured such that both can be worn by a single user simultaneously without one apparatus interfering with the operation of the other. By using both the training device **100** and the shoulder training assembly **122** at the same time, the user **102** is able to work on multiple aspects of her golf stance and golf swing simultaneously. For example, while the user **102** is executing a golf swing, the training device **100** provides resistive feedback to the user **102** to encourage the user **102** to keep her head lowered and her waist bent at a proper angle, while the shoulder training assembly **122** provides resistive feedback to the user **102** to encourage the user **102** to properly rotate her shoulders during a backswing of the golf swing.

In some implementations, rather than including the foot portion **132**, the fourth tension strap **130** can include an attachment means similar to the first and third attachment means **112** and **116** for attaching the fourth tension strap **130** to ground. In some implementations, the attachment means of the fourth tension strap **130** can be positioned relative to the first attachment means **112** or the third attachment means **116** to ensure that the user **102** stands in a proper position with respect to the first attachment means **112** or the third attachment means **116**. In some implementations, the attachment means of the fourth tension strap **130** can be positioned relative to a golf ball or golf tee to ensure that the user **102** stands in a proper position with respect to the golf ball or golf tee.

In some implementations, one or more portions of the training device **100** can engage or interact with one or more portions of the shoulder training assembly **122**. For example, the belt **120** can be used to secure a portion of the fourth tension strap **130** against the abdomen of the user **102**. This can be achieved, for example, by positioning a portion of the fourth tension strap **130** between the belt **120** and the body of the user **102**. As another example, one or both of the first and second shoulder cuffs **124** and **126** can be attached to the collar portion **104** of the training device **100** to ensure a proper fit for the user **102** or to prevent portions of the training device **100** or shoulder training assembly **122** from sliding out of place.

In some implementations, the training device **100** and/or the shoulder training assembly **122** can be used to teach proper motion and techniques for activities other than golf. For example, the training device **100** and/or the shoulder training assembly **122** can be configured for use in teaching proper baseball bat swinging techniques, proper cricket bat swinging techniques, or proper tennis stroke techniques.

A number of embodiments of the invention have been described. Nevertheless, it will be understood that various modifications may be made without departing from the spirit and scope of the invention. Accordingly, other embodiments are within the scope of the following claims.

What is claimed is:

1. A training device comprising:

a collar portion sized for placement around a neck of a user;

a first tension strap coupled at one end to the collar portion and including a first attachment means at a second end for attachment to ground, the first tension strap including a first extension portion being adapted to be disposed along a front of the user from the collar portion down toward a waist of the user and a second extension portion that is adapted to extend from the waist at the user's front to the ground at a predetermined angle; and

a second tension strap including a second attachment means at one end and a third attachment means at a second end, wherein:

the second attachment means is adapted for attachment to the first tension strap at the user's waist area,

the third attachment means is adapted for attachment of the second tension strap to ground, and

during swing execution the first and second tension straps provide feedback to the user when a head of the user moves up or down while simultaneously enabling the user to complete the swing without interference from either the first or second tension straps.

2. The training device of claim 1 wherein the collar portion includes a halo including a padded portion in an area adjacent to a user's neck.

3. The training device of claim 1 wherein the first and second tension straps are elastic.

4. The training device of claim 1 wherein the first and third attachment means are stakes or spikes.

5. The training device of claim 1 further including:

a shoulder portion including a first shoulder cuff and a second shoulder cuff;

a third tension strap coupling the first and second shoulder cuffs along a back of the user;

a foot portion; and

a fourth tension strap adapted for coupling to the first shoulder cuff that is positioned on a leading shoulder of a user and extend to the foot portion that is coupled to a user's opposing foot.

6. The training device of claim 5 wherein the fourth tension strap is adapted for extending across the user's chest and abdomen, wrapping around the user's upper leg and lower leg before attaching to the foot portion.

7. The training device of claim 6 wherein the foot portion is a cuff.

8. The training device of claim 7 wherein the third and fourth tension straps are adapted to provide feedback to the user during golf swing execution related to shoulder turn.

9. The training device of claim 1 further including a belt portion at a waist of the user and a proximity tension strap coupled at the belt portion and to a junction formed between the first and second tension straps so as to maintain a portion of the first tension strap that is positioned down a front of the user between the collar portion and the belt portion in close proximity to a body of the user.

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