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[54] **GOLF TRAINING DEVICE**

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[52] **U.S. Cl.** ..... **273/183 B,** 273/189 R

[51] **Int. Cl.** **A63b 69/36**

[58] **Field of Search** ..... 273/183 B, 188, 189, 190, 273/26 C

[56] **References Cited**

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[57] **ABSTRACT**

A golf training device which is useful for correct judgement of the degree of twisting of a golfer's body and comprises a rod one end of which is attached to the lower back portion of the golfer's body and turned by the twisting of the body in the back swing, a band to fit said rod to said portion of the body, a sound producing mechanism which is attached to the other end of said rod and produces sounds according to the degree of turning of said rod, a backing plate which holds said sound producing mechanism and transmits the turning of both shoulders to the device, and a pair of shoulder bands to fit said backing plate to both shoulder joints of the golfer. A ratchet mechanism may be included in the device, whereby the sounds will be produced only during the golfer's backswing.

7 Claims, 4 Drawing Figures

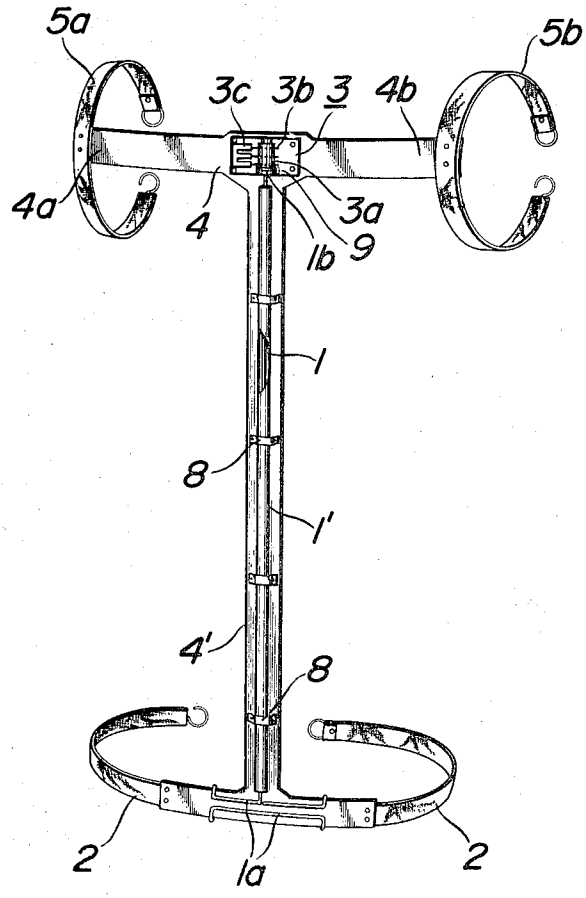
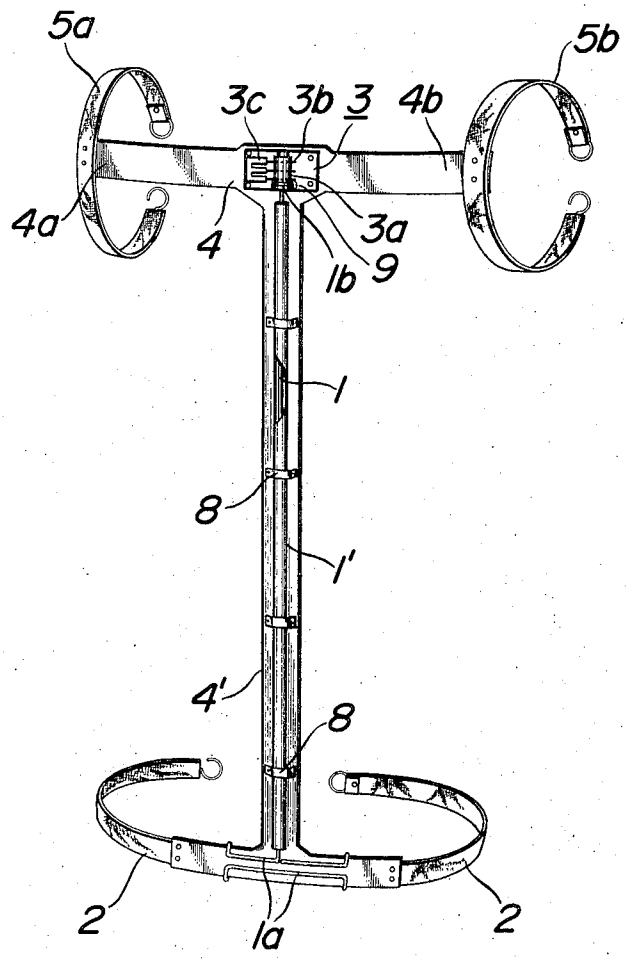


Fig. 1



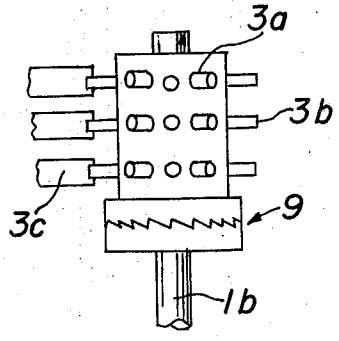


Fig. 4

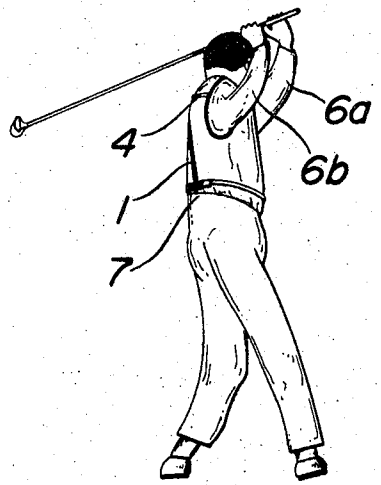
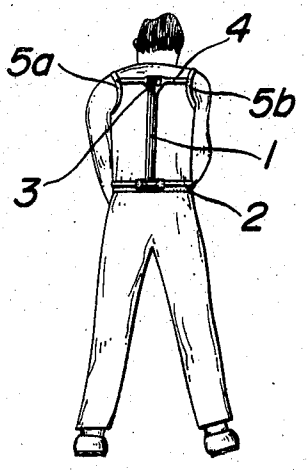


Fig.3

Fig.2



GOLF TRAINING DEVICE

This invention relates to a golf training device. More particularly, the invention relates to a device by which the degree of twisting of the golfer's body can be judged, and the succeeding down swing timed.

More specifically, the present invention relates to a training device for exercising the back swing in the shooting of a golf ball. Prior to a golfer shooting a golf ball, it is necessary for him to turn both of his shoulders as much as possible. When the shoulders of a golfer are turned to the maximum, his waist follows them only partly, and the trunk of the golfer is twisted to accumulate the largest possible energy, which is then released in the down swing motion. Though it is considered to be easy to twist the upper body in the back swing, in practice, it is not so easy to twist the body correctly. It is difficult to sense the degree of twisting of the body and to judge the proper timing of the down swing.

Accordingly, the principal object of the present invention is to solve these problems.

The training device of the present invention comprises a rod one end of which is fitted to the lower portion of the back of a golfer's body and turned by the twisting of the body, a band to fit said rod to said portion, a sound producing mechanism which is attached to the other end of said rod and produces a sound or sounds according to the degree of the turning of said rod, a backing plate which holds said sound producing mechanism and transmits the turning of both shoulders to the mechanism, and a pair of shoulder bands to fit said backing plate to both shoulder joints.

These and other objects and features of the invention will become more apparent from the following description taken in connection with the accompanying drawings in which:

FIG. **1** is a partly cross-sectional perspective view of a golf training device of the present invention;

FIG. **2** shows said device attached to the back of a golfer;

FIG. **3** illustrates a golfer wearing the device while swinging back; and

FIG. **4** shows a portion of the device of FIG. **1** on a larger scale.

A rod **1**, such as a piece of piano wire, steel rod or solid plastic pipe, is turned about its longitudinal axis by the twisting of the body of a golfer. A protective pipe **1'** receives said rod **1**, and a fitting band or strap **2** secures the lower end **1***a* of said rod **1** to the lower back of the golfer. A sound producing mechanism **3** includes a rotatable drum **3***a* connected to the upper end **1***b* of said rod by a ratchet coupling **9**, as is best seen in FIG. **4**. The peripheral surface of said drum **3***a* is provided with a plurality of pins **3***b* at regular intervals, and when the drum **3***a* is turned, said pins **3***b* on the drum surface strike metal reeds **3***c*. Said sound producing mechanism **3** is attached to a backing plate **4**, which transmits the turning of both shoulders of the golfer relative to the rod **1** to the sound producing mechanism **3**. Further, said backing plate **4** is provided at its ends **4***a* and **4***b* with a pair of shoulder bands or straps **5***a* and **5***b* which are used for fitting the backing plate **4** to the shoulders of the golfer.

Because a chord is more pleasant than a single sound, three reeds **3***c* are provided. Accordingly, three rows of pins **3***b* are provided on the surface of the drum **3***a* to produce the chord. The rod **1** is reinforced and stabilized by a backing plate **4'** and attachment rings **8**.

As shown in FIG. **2**, the golf training device of the present invention is attached to the back of a golfer by both arms **6***a* and **6***b* inserted through the shoulder bands **5***a* and **5***b*, respectively, whereby the ends **4***a* and **4***b* of the backing plate **4** are secured to the shoulders of the golfer, and the lower end **1***a* of the rod **1** is attached to the lower back **7** of the golfer's trunk nearer his legs by means of the band **2**. After the golfer assumes the position shown in FIG. **2**, he swings back as shown in FIG. **3**, whereby his body is twisted, the rod **1** and the drum **3***a* are rotated relative to the metal reeds **3***c*, and the metal reeds **3***c* are struck by the pins **3***b* on the drum **3***a*. According to the magnitude of the rotation of the drum **3***a*, that is, the degree of twisting of the body, a different number of audible signals is generated. After the back swing, the golfer swings down. Sound also produced during the down swing is not necessary but rather troublesome. Therefore, the ratchet coupling **9** is provided between the drum **3***a* and the rod **1** to release the drum during the return rotation of the rod **1**.

The sound producing mechanism of the illustrated device is similar to a music box, but other sound producing mechanisms may be employed in the golf training device of the invention.

What is claimed is:

1. A golf training device comprising:

a. an elongated rod member having a longitudinal axis;

b. first strap means for securing one longitudinal end portion of said rod member to the shoulders of a golfer's body;

c. second strap means for securing the other longitudinal end portion of said rod member to a part of the trunk of said golfer's body remote from said shoulders in the direction toward the golfer's legs,

1. one of said strap means being secured to said rod member for relative angular movement about said axis, and the other strap means being secured to said rod member for movement therewith about said axis,

2. said part being sufficiently remote from said shoulders for causing relative angular movement of said rod member and of said one strap means during back swing motion of said golfer; and

d. signal generating means responsive to relative angular movement of said rod member and of said one strap means for generating an audible signal indicative of the magnitude of said angular movement.

2. A device as set forth in claim **1**, wherein said one strap means is said first strap means and includes a pair of shoulder bands adapted to be fastened to said shoulders respectively.

3. A device as set forth in claim **2**, wherein said second strap means includes a fitting band member, said part of the trunk being near the lower back of said body.

4. A device as set forth in claim **1**, wherein said signal generating means include two cooperating sets of signal generating elements respectively mounted on said rod member and on said first strap means, one of said sets including a plurality of reed members, and the other set including a plurality of pins sequentially striking said

reed members during said relative angular movement.

5. A device as set forth in claim **4,** wherein said other set further includes a drum member coaxially mounted on said one longitudinal end portion, said pins radially projecting from said drum member.

6. A device as set forth in claim **5,** a ratchet coupling interposed between said drum member and said one longitudinal end portion for turning said drum member

about said axis only when said rod member turns about said axis in one predetermined direction.

7. A device as set forth in claim **1,** further comprising uni-directional coupling means operatively interposed between said rod member and said signal generating means for generating said signal only in response to relative angular movement of said rod member and of said one strap means in one direction.

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