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GOLF DRIVE STROKE PRACTICE DEVICE

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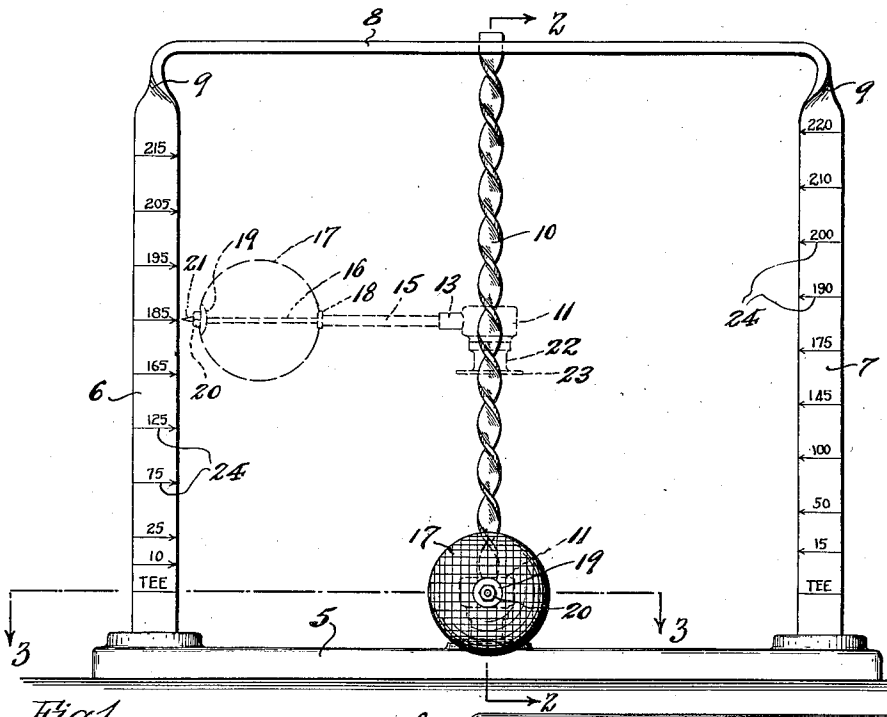


Fig. 1

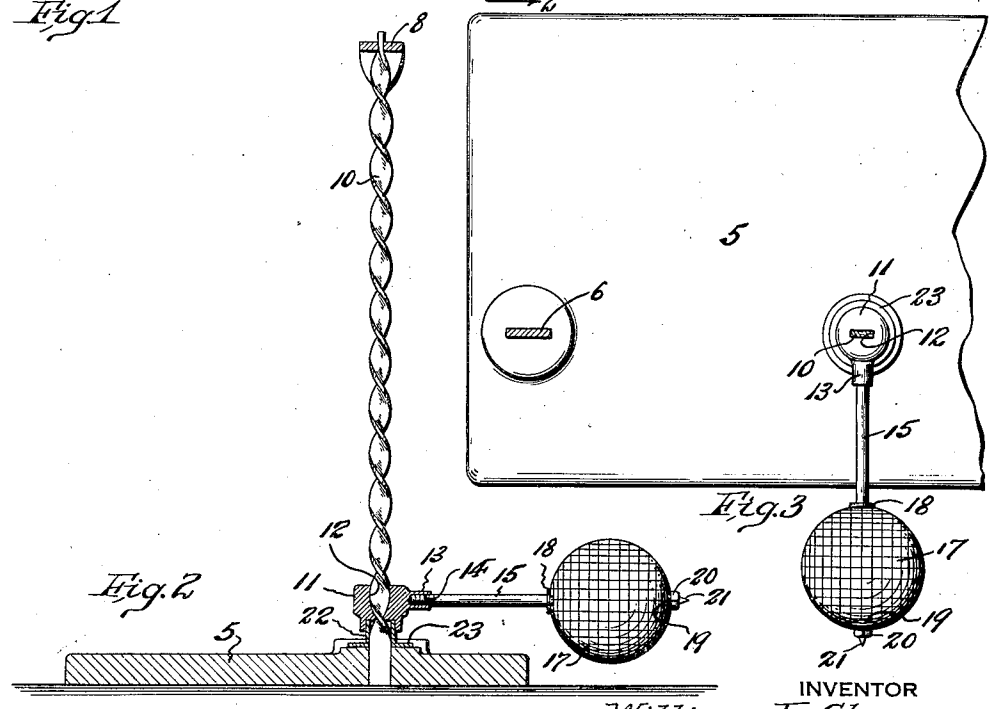


Fig. 2

Fig. 3

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GOLF DRIVE STROKE PRACTICE DEVICE

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5 Claims. (Cl. 265—20)

This invention relates to improvements in apparatus for practicing golf strokes; and the invention has reference, more particularly, to a novel device especially adapted for the practice of golf driving strokes.

This invention has for its principal object to provide a novel golf practice device of the captive ball type, wherein the movement of the ball, when driven by a stroke of a club wielded by the user, is proportional to the force of the blow administered by the club, with the consequence that the extent of movement of the ball substantially indicates the distance of flight which would be attained by a free ball if driven by a blow of equivalent force. To this end the invention comprises a novel vertically disposed helical guide having a nut piece rotatably movable up and down thereon, said nut piece having a laterally projecting rod or arm upon the free end of which is affixed a golf ball; said helical guide being formed of twisted flat stock and is provided with a relatively fast pitch, so that after the nut piece, as revolved thereon by the movement of the driven ball, reaches the end of its upward travel on said guide, the same, together with the ball will return by gravity to normal initial position, whereby after completion of a driving stroke and consequent movement of the ball under the impulsion thereof, the ball automatically returns to an initial teed position, in other words the ball is self-teeing. By reason of this novel structure and mode of operation, the user is relieved of all necessity for manually resetting the device preparatory to each practice stroke, and may consequently repeat and practice the strokes at will, and concentrate full attention upon the study of his stroke methods and effects.

The invention has for a further object to provide a novel means cooperative with the movable captive ball and its helical guide for indicating the flight distances corresponding to attained positions of the driven ball as moved on the guide.

Other objects of this invention, not at this time more particularly enumerated, will be understood from the following detailed description of the same.

An illustrative embodiment of this invention is shown in the accompanying drawing, in which:—

Fig. 1 is a front elevation of the novel golf stroke practice device made according to this invention; Fig. 2 is a vertical transverse section through the same, taken on line 2—2 in Fig. 1; and Fig. 3 is a fragmentary horizontal section through the same, taken on line 3—3 in Fig. 1.

Similar characters of reference are employed in the above described views, to indicate corresponding parts.

Referring to said drawing, the novel golf stroke practice device comprises a base 5, which is preferably made of metal, such as cast iron, or of any other suitable and comparatively weighty material calculated to give stability to the device when in use. Mounted on the base 5 is a suitable supporting frame, comprising uprights 6 and 7 spaced longitudinally apart, with their lower ends footed or anchored to or in the base 5, and having their upper ends connected together by a head bar or cross piece 8. It will be obvious that the uprights 6—7 and uniting head bar or cross piece 8 may be variously formed, either in separate parts suitably united or as one piece. In their simplest form, as shown, said parts are made of heavy strap or band metal in one piece, with the uprights disposed with their flat sides in vertical planes parallel to the longitudinal axis of the base, while the head bar or cross piece is disposed, by interconnecting twisted connections 9 with the upper ends of said uprights, in a horizontal plane.

Extending vertically between the base 5 and the head bar or cross piece 8, midway between the uprights 6 and 7, is a helical guide member 10, the same having its lower end affixed to the base 5 and its upper end affixed to the head bar or cross piece 8. This guide member 10 is formed by a helically twisted flat bar, the helices of which are of relatively fast pitch.

Rotatably slidable on said helical guide member 10 is a nut-piece 11, preferably having a helical bore 12 to fit or correspond to the helices of said guide member. Said nut-piece 11 is provided with a laterally projecting stud 13 having in its free end an internally threaded socket 14. Screwed into said socket 14 is the inner end of a ball supporting arm 15 which thus projects from said nut-piece 11 in a lateral direction substantially at right angles to the vertical axis of said guide member 10. Suitably affixed on the outer end portion 16 of said arm 15 is a golf ball 17. Preferably said portion 16 of the supporting arm 15 extends diametrically through the body of the ball 17, a stop shoulder 18 being provided on the arm to hold the ball against shifting movement on the latter, and the ball is retained on the arm against the stop shoulder 18 by a washer 19 and nut 20 applied to the free end of the portion 16 of said arm 15. If desired, the extremity of the portion 16 of the arm 15 may be extended outwardly beyond the ball and nut 20 in the form of a sharpened pointer element 21, which co-

operates with certain stroke indicating marks with which the uprights 6—7 are provided, as will subsequently appear. Means are provided for limiting the downward movement of the nut-piece 11 on the guide member 10, thereby to establish a normal initial position of the ball which constitutes the equivalent of a teed disposition thereof, somewhat outwardly off-set from and in front of the base, and spaced somewhat above the ground or floor surface upon which the apparatus rests, thereby disposing the ball in a proper and natural position to be addressed by and then struck with a golf-club wielded by the user of the practice device. This limiting means may take various forms, but preferably comprises a sleeve 22 which is suitably secured to the lower side of the nut-piece 11 to surround the guide member 10, and said sleeve is preferably pivoted with an outwardly extending annular bottom flange 23 to provide a foot-piece adapted to be stopped against or abut the base 5, thereby to arrest downward movement of the nut-piece 11 on the guide member 10 at a point adapted to dispose the ball 17 in the desired above described normal initial or teed position. Said sleeve 22 also serves to support the nut-piece 11, during its up and down movements on the guide member, against tilting and like effects which would tend to bind the same relative to the guide member or otherwise interfere with the free and easy travel thereof upon the latter.

In the use of the novel practice device of this invention, the same is placed on the floor or ground and the user takes his stance in front of the same and addressing the ball 17 with his golf club, swings and strikes the same exactly as would be done with respect to a teed free ball. As the ball 17 is struck, the movement imparted thereto causes the same to revolve around the helical guide member 10, thus turning the nut-piece 11 in clockwise direction upon the latter, so that the turning nut-piece and revolving ball rise on the guide member. The distance of such rising effect will be proportional to the force of the blow administered to the ball, and as the momentum of the ball spends itself the ball will stop its clockwise revolution, such stopping point being noted by reference to the indicating marks 24 with which the forward faces of the uprights 6—7 are provided, whereby the effectiveness of the practice shot is indicated in terms of yardage distance of flight which would have been attained by a free ball if driven by a blow of equal force. As soon as the rising clockwise movement of the ball ceases, the force of gravity operates to cause the nut-piece 11 and ball to move downwardly upon the guide member 10, the nut-piece turning and the ball revolving in a reverse or anti-clockwise direction. This downward movement is automatically initiated and continues until the stop means 22—23 again abuts the base 5, thereby to position the ball 17 in the described normal initial or teed position ready for administration of another practice stroke. It will be obvious that this automatic resetting of the ball to an initial or teed position is a novel characteristic of the practice device, and one which it is believed clearly distinguishes the same from other captive ball practice devices which have heretofore been known or suggested. It will also be equally obvious that the automatic resetting or self-teeing functioning of the apparatus is of immense advantage to the user, not only because it relieves the latter from all necessity of bending or stooping to manually adjust or reset the device for a subsequent stroke, but because it permits the user to concentrate his full attention, without interruption, upon the study of his stroke methods and effects.

The indicating marks 24 are above referred to as applied to both the uprights 6 and 7, and although this is believed to be most practical, it will be understood that the marks may be applied to only one of the uprights, if desired, or that any other suitable method of comparative flight measurement may be resorted to, or even omitted altogether, if deemed advisable.

I am aware that various changes could be made in the above-described constructions, and many apparently widely different embodiments of this invention could be made without departing from the scope thereof, as defined in the following claims. It is therefore intended that all matter contained in the above description, or shown in the accompanying drawing, shall be interpreted as illustrative and not in a limiting sense.

I claim:

1. In a golf practice device, a base, uprights secured to said base in longitudinally spaced relation, a cross-piece secured to and extending between the upper portions of said uprights, a vertical guide member affixed to and between said base and cross-piece intermediate said uprights, said guide member being formed of helically twisted flat stock, a nut-piece rotatably slidable on said guide member, a rigid laterally projecting arm carried by said nut-piece, a golf ball affixed to the free end portion of said arm, and at least one of said uprights having indicating marks observable to denote the equivalent of flight distance of the struck ball at the limit of any given upward movement thereof when revolved upwardly about said guide member.

2. In a golf practice device, a base, uprights secured to said base in longitudinally spaced relation, a cross-piece secured to and extending between the upper portions of said uprights, a vertical guide member affixed to and between said base and cross-piece intermediate said uprights, said guide member being formed of helically twisted flat stock, a nut-piece rotatably slidable on said guide member, a rigid laterally projecting arm carried by said nut-piece, a golf ball affixed to the free end portion of said arm, and stop means to limit the downward movement of said nut-piece on said guide member, thereby to dispose the golf ball in normal initial teed position overhanging the forward side of said base and spaced from the underlying ground surface.

3. In a golf practice device, a base, uprights secured to said base in longitudinally spaced relation, a cross-piece secured to and extending between the upper portions of said uprights, a vertical guide member affixed to and between said base and cross-piece intermediate said uprights, said guide member being formed of helically twisted flat stock, a nut-piece rotatably slidable on said guide member, a rigid laterally projecting arm carried by said nut-piece, a golf ball affixed to the free end portion of said arm, stop means to limit the downward movement of said nut-piece on said guide member, thereby to dispose the golf ball in normal initial teed position overhanging the forward side of said base and spaced from the underlying ground surface, and at least one of said uprights having indicating marks observable to denote the equivalent of flight distance of the struck ball at the limit of any given upward move-

ment thereof when revolved upwardly about said guide member.

4. A golf drive stroke practice device comprising a ball, a rotatable support for said ball and a vertically positioned member on which said support is rotatable to raise the support when the ball is struck and on which it is automatically rotatable to return the ball and support to a teed position under the action of gravity and means raised by said support for indicating the distance said support is moved when the ball is struck.

5. A golf drive stroke practice device comprising a ball, a support for said ball normally holding it in a lowered and teed position, a vertically positioned member on which said support is rotatable in a clockwise direction when the ball is struck to raise the ball and support and on which it is automatically rotatable in a counter clockwise direction under the action of gravity after the momentum of said support and said ball is expended to return said ball and said support to said lowered position and cooperating elements on said member and support for positioning said ball in its teed position at the end of its movement under the action of gravity.

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