Oct. 12, 1926. 1,603,094

J. OWENS

PRACTICING APPARATUS FOR GOLF PLAYERS

Filed July 9, 1926

Fig. 4

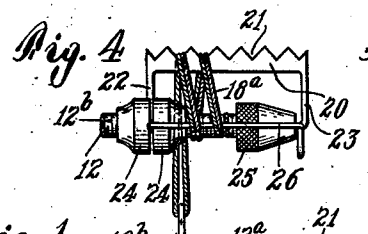


Fig. 3

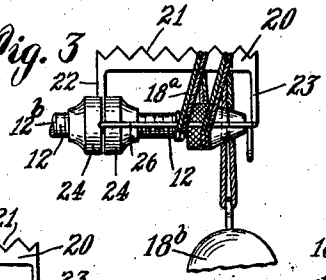


Fig. 1

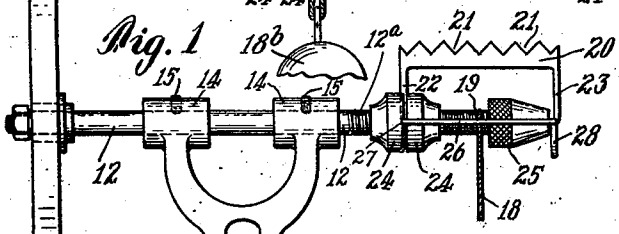


Fig. 2

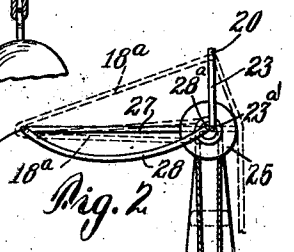


Fig. 8

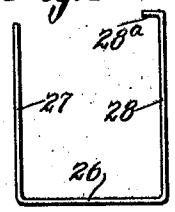
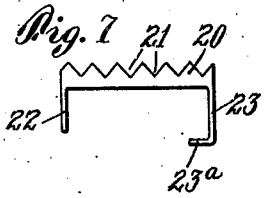


Fig. 7



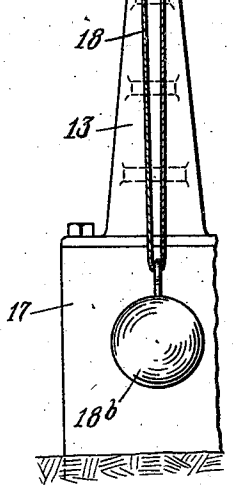


Fig. 9

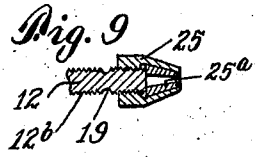


Fig. 5

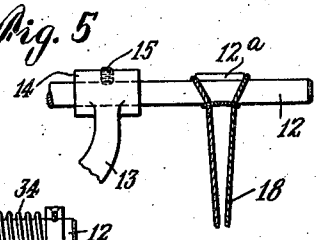
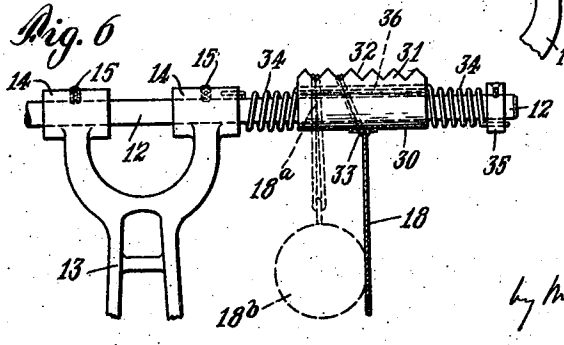


Fig. 6



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UNITED STATES PATENT OFFICE.

JAMES OWENS, OF BOSTON, MASSACHUSETTS.

PRACTICING APPARATUS FOR GOLF PLAYERS.

Application filed July 9, 1926. Serial No. 121,370.

The object of this invention is to provide an apparatus including a captive ball, whereby a golf player may acquire proficiency in making various strokes used in the game, and may receive ocular demonstration of errors in the direction of driving and other strokes.

Of the accompanying drawings forming a part of this specification:—

Figure 1 is a side view of an apparatus embodying the invention.

Figure 2 is an end view of the same.

Figures 3 and 4 are fragmentary views similar to a portion of Figure 1, showing the results of erroneous strokes.

Figures 5 and 6 are fragmentary side views showing modifications.

Figures 7 and 8 are side views, respectively, of the spacing member and the reel member hereinafter described.

Figure 9 is a fragmentary sectional view, showing portions of the rod and chuck hereinafter described.

The same reference characters indicate the same parts in all of the figures.

In the drawings, 12 designates a tether-supporting rod supported horizontally by a standard 13, having bearings 14 in which the rod is fixed by set screws 15. The standard may be a metal casting having a base 16 bolted to a post 17, driven into the ground. The standard may be otherwise supported with the rod 12 suitably elevated above the ground, or any other supporting surface on which a practicing player may stand. The rod projects laterally from the standard and is surrounded by an unobstructed space in which the tether and captive practice ball hereinafter described may revolve about the rod.

Suspended from the projecting portion of the rod is a flexible tether 18, with the free end of which a practice ball 18^b, such as a golf ball, is connected. The tether may be a loop of cord or rope as shown by Figure 2, an end portion of the loop bearing on the surface of a peripheral groove 19 (Figure 9) in the rod, so that it is confined against movement lengthwise of the rod. If desired, however, the tether may be engaged with the rod, as shown by Figure 5, so that the portion bearing on the rod is confined against movement lengthwise of the rod, the tether being looped around the rod and confined by a projection 12^a on the rod. The arrangement is such that when the ball is struck by a club, the stroke being in a direction substantially at right angles with the rod, the ball is revolved and the tether is convoluted about the rod. If the stroke is perfect as to direction, the convolutions 18^a of the tether will be superimposed upon each other without assuming either of the helical arrangements shown by Figures 3 and 4. If the stroke is a "pull", the convolutions will be helically arranged extending to the right as shown by Figure 3. If the stroke is a "slice", the convolutions will be helically arranged extending to the left as shown by Figure 4.

I prefer to provide a spacing member associated with the rod, to space apart the convolutions 18^a when the stroke is either a pull or a slice, and a reel member associated with the rod and forming therewith a reel adapted to elongate or enlarge the convolutions, and thereby amplify an error in the stroke which convolutes the tether.

To these ends I provide the projecting portion of the rod with a screw-thread 12^b and engage therewith means for securing to the rod a spacing member and a reel member, each offset from the rod and extending parallel therewith. The spacing member is, in this instance, a bar 20, having a row of notches 21, and arms 22 and 23. The arm 22 is clamped between two nuts 24, engaged with the screw-thread 12^b. The arm 23 has an inwardly bent end 23^a (Figure 7) entering the outer end of a chuck 25, engaged with the outer end portion of the rod 12, and provided with jaws 25^a shown conventionally by Figure 9, which grip the bent end 23^a.

It will be seen by reference to Figures 3 and 4, that the notches 21 are adapted to receive and space apart the convolutions 18^a one of the notches being vertically alined with the groove 19, so that it receives all of the convolutions when the stroke is perfect.

The reel member may be a wire rod, bent to form a central portion 26 offset from, and extending parallel with, the rod 12, and arms 27 and 28 extending inward from the portion 26, the arm 27 being clamped be-

tween the nuts 24, while the arm 28 has an inwardly bent end portion 28ª entering the chuck and gripped by the jaws thereof. When the tether is convoluted as described, the convolutions bear on the rod, the reel member, and the spacing member, and are elongated or enlarged as indicated by dotted lines in Figure 2. When the tether is convoluted and comes to rest, the ball is raised, as indicated by Figures 3 and 4, so that an unwinding operation is required to restore the tether and ball to the operative condition shown by Figure 2. This operation may be performed automatically by the modified construction shown by Figure 6, in which the rod 12 is provided with a sleeve 30, having a flange 31, containing convolution spacing notches 32. The tether is engaged at one end with an eye 33, fixed to the side of the sleeve opposite the flange. The sleeve is adapted to turn on the fixed rod and is normally held yieldingly with the flange 31, projecting upward, and the eye 33 projecting downward, by a torsion spring composed of coiled portions 34, 34, engaged with one of the bearings 14 and with a collar 35 fixed to the rod 12, and a neck portion 36, extending through the sleeve 30, as indicated by dotted lines in Figure 6. The operation of convoluting the tether causes a rotation of the sleeve on the rod 12 in the direction required to tension the spring. When the ball and tether come to rest, the tether being convoluted and the ball raised, as indicated by dotted lines in Figure 6, the spring reacts and rotates the sleeve in the direction required to unwind the tether and allow the ball to drop. This form of the apparatus is intended for use in practicing putting strokes.

As shown by Figure 1, the rod 12 is extended to project laterally from opposite sides of the standard 13. On the projecting portion shown at the left in Figure 1, is mounted to rotate loosely a disk 38, from the perimeter of which is suspended a relatively short flexible tether 39, with which is connected a practice ball 40. When the ball is struck by a club, its momentum causes the rotation of the disk, the ball being held outward by centrifugal force, so that the ball and tether revolve about the axis formed by the rod 12, the disk rotating on said axis. The number of revolutions of the ball depends on the force of the stroke, which may be determined by counting the number of revolutions. This portion of the apparatus is useful in improving the force of the player's drive.

The apparatus may be used as the equipment of the teacher of a class of golfers, each using the apparatus in turn, and each watching the use by the others.

I claim:—

1. A practicing apparatus for golf players, comprising a horizontal tether-holding rod, supporting means maintaining the rod spaced above a surface on which the player stands when practicing, a flexible tether suspended from the rod, and a practice ball connected with the free end of the tether, the rod being surrounded by an unobstructed space permitting a revolution of the ball and tether about the rod, the arrangement being such that when the ball is struck by a club, the stroke being in a direction substantially at right angles with the rod, the ball is revolved and the tether convoluted about the rod, the form assumed by the convolutions of the tether indicating the direction of the stroke, so that the player is informed whether the stroke is perfect, or is erroneous, and is either a slice or a pull.

2. A practicing apparatus as specified by claim 1, comprising also a spacing member associated with the rod for spacing the tether convolutions apart when the convoluting stroke is either a slice or a pull.

3. A practicing apparatus as specified by claim 1, comprising also a spacing member extending beside the rod having a series of notches arranged to engage convolutions of the tether, and space the same apart when the stroke is either a slice or a pull, one of the notches being arranged to receive all of the convolutions when the stroke is perfect.

4. A practicing apparatus as specified by claim 1, comprising also a reel member spaced laterally from the rod and forming therewith a reel adapted to elongate the convolutions of the tether, and thereby amplify an error in the stroke which convolutes the tether.

5. A practicing apparatus for golf players comprising a fixed upright standard, a horizontal rod fixed to the standard and projecting laterally therefrom, a flexible tether suspended from the projecting portion of the rod, a practice ball connected with the free end of the tether, the projecting portion of the rod being screw-threaded, a chuck and a pair of clamping nuts engaged with the threaded portion, and a pair of rod adjuncts comprising a notched spacing member and a reel member, each having arms formed to be held by said chuck and nuts, the arrangement being such that said members may be supported by the chuck and nuts parallel with the rod and spaced from each other.

6. A practice apparatus for golf players comprising a fixed upright standard, a horizontal rod fixed to the standard and projecting from opposite sides thereof, a flexible tether suspended from one of the projecting portions of the rod, a practice ball connected with the free end of the tether, indicating means secured to said projecting portion, adapted to cooperate with the tether in indicating the direction of a stroke,

a disk mounted to rotate loosely on the opposite projecting portion of the rod, a flexible tether suspended from the periphery of the disk, and a practice ball connected with the free end of the tether, the arrangement being such that when the ball is struck by a club, the stroke being in a direction substantially at right angles with the rod, the ball and tether revolve about the rod, the disk being rotated on the rod by force exerted thereon by the ball and tether.

In testimony whereof I have affixed my signature.

JAMES OWENS.