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GOLF STROKE PRACTICE DEVICE

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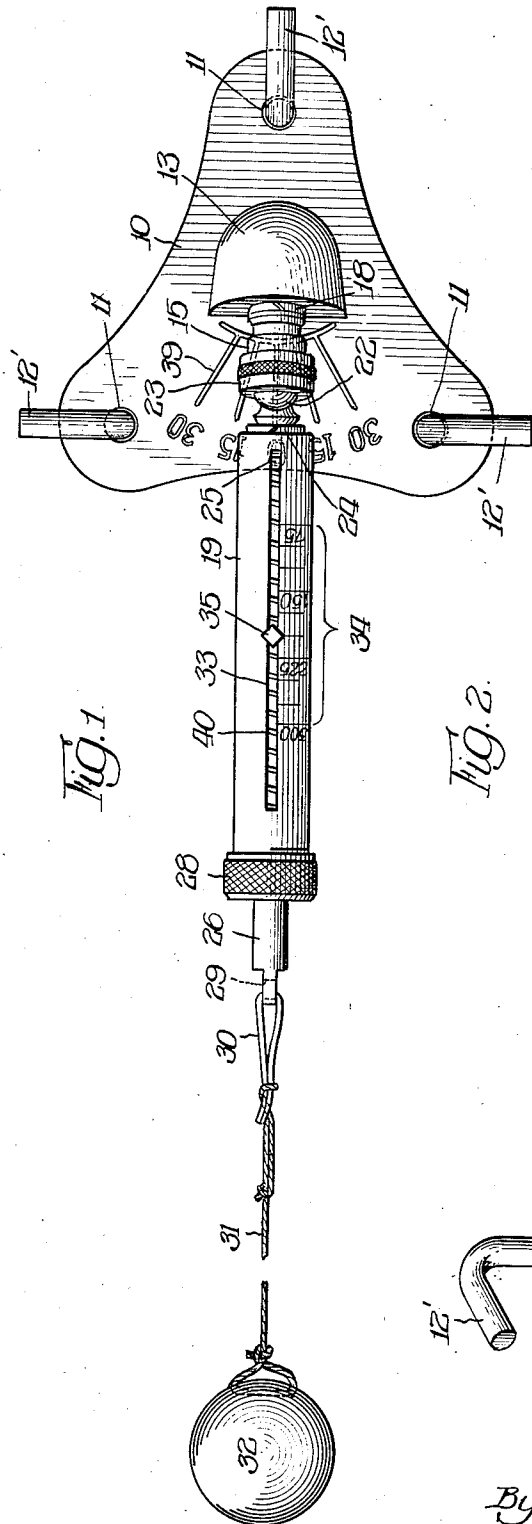


Fig. 1

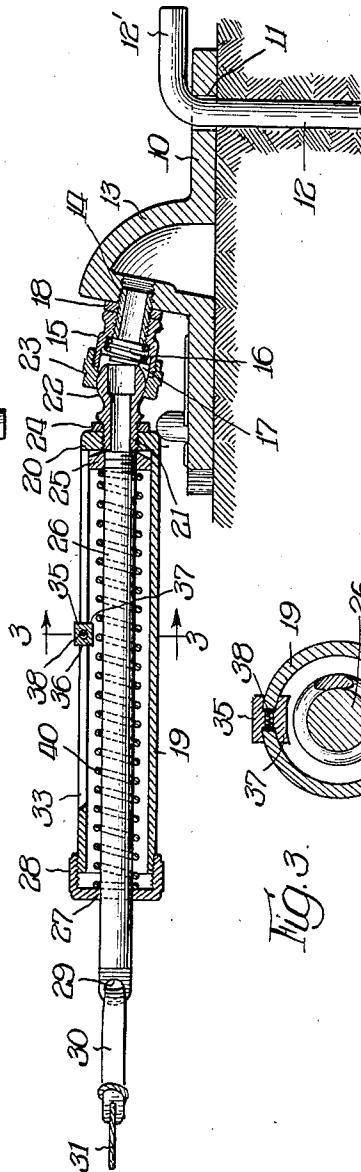


Fig. 2

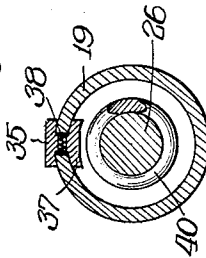


Fig. 3

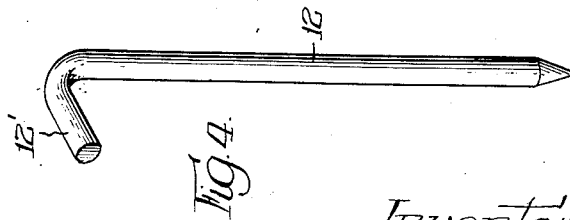


Fig. 4

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GOLF STROKE PRACTICE DEVICE

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6 Claims. (Cl. 265—21)

This invention relates to golf stroke practice devices, having reference more particularly to devices of the captive ball type. The general object of the invention has been to provide a very simple, rugged, efficient and inexpensive device of the character specified for use by golf players desirous of improving their game through practice by means of a captive ball device that would reliably indicate both the length and direction of the flight of the ball, and also substantially the angularity of a hook or slice.

One practical form of the invention is illustrated in the accompanying drawing, in which: Fig. 1 is a top plan view.

Fig. 2 is a longitudinal axial section.

Fig. 3 is an enlarged cross section on the line 3—3 of Fig. 2.

Fig. 4 is a perspective view of one form of base anchoring device preferably employed.

Referring to the drawing, 10 designates a generally triangular flat base plate of metal, the three corners of which are formed with holes 11 through which are driven into the ground anchoring pins 12, a simple form of such pin consisting of a straight pointed body and a rectangularly bent head 12'. The manner in which these anchoring pins engage the plate and the ground is clearly shown in Figs. 1 and 2.

The base plate 10 is cast with a central upstanding lug 13, in the face of which is mounted a screw threaded stud 14, onto which is screwed the shank of a cup-shaped member 15 containing a thrust spring 16 and a hemispherical bearing ring 17; a spring washer 18 being preferably inserted between the face of the lug 13 and the inner end of the cup-shaped member 15 to lock the latter against accidental unscrewing.

19 designates a cylinder formed with a closed inner end 20 in which is screwed the shank 21 of a ball-shaped bearing member 22 that engages with the ring 17 and a cooperating bearing member 23 that is screwed onto the outer end of the cup-shaped member 15, thus forming a ball and socket joint; the spring 16 serving to create sufficient friction between the ball 22 and its bearings 17 and 23 to maintain the cylinder 19 in any angular position which it may assume. A spring washer 24 encircling the shank of the ball 22 and bearing against the rear end of the cylinder head 20 acts as a lock to oppose accidental unscrewing of the cylinder head.

Within the cylinder 19 is a piston 25 on the inner end of a piston rod 26 that extends through the cylinder and through the central aperture

27 of a cap 28 that is screwed onto the outer end of the cylinder 19. Encircling the piston rod 26 and confined endwise between the piston 25 and the cap 28 is a coiled compression spring 40. The outer end of the piston rod 26 is formed with an eye 29 through which is passed a rawhide or tough leather loop 30 to which latter is secured a cord 31 to the outer end of which cord is attached a practice golf ball 32.

Cylinder 19 is formed with a longitudinal slot 33, adjacent one edge of which is a distance scale 34. Slidable in the slot 33 is a pointer comprising a head 35 lying on the outer side of the cylinder, a shank 36 that slidably engages with the walls of the slot 33, and a foot 37 that slidably engages with the internal surface of the cylinder 19. This pointer is equipped with a device for frictionally holding it temporarily in whatever position it is advanced to on the scale 34 by the outward movement of the piston 25. A simple friction device for this purpose consists of a small compression spring 38 (Fig. 3) housed within a transverse hole in the shank 36 of the pointer, the spring 38 being under compression so that its ends exert friction on the longitudinal edges of the slot 33.

The base plate is provided, just in advance of the lug 13, with a scale 39 for indicating direction of the stroke in degrees from a central longitudinal position, the position of the cylinder or its shank over the scale at the conclusion of a stroke indicating that the player has made either a straight forward drive or a "hook" of a "slice" and substantially the extent in degrees of the latter.

A sufficient length of cord 31 is provided to enable the player to drive the ball to a considerable distance, and when the length of cord is fully played out, the momentum of the ball acting through the cord, pulls the piston 25 forwardly to an extent depending upon the power of the blow imparted to the ball and the consequent momentum of the latter. The pointer 35 is first set at its rearmost position, and as the piston travels forwardly, it carries the pointer with it, the pointer remaining at the point to which it has been carried when the force of the blow is spent, and the reading on the scale 34 opposite the pointer indicating the length of the stroke. If the blow does not send the ball in a straight forward direction, but more or less to one side or the other, the momentum of the ball will swing the cylinder to the corresponding side, and the extent of the "hook" or "slice" will be indicated by the scale 39.

It will be observed that the shape of the anchor pins 12 and their laterally offset heads 12' is such that when the pins are fully driven into the ground their heads overhang the edges of the anchor plate 10, so that they can easily be withdrawn by merely inserting the finger or the blade of a golf club, such as the loftier, beneath the head of the pin and then pulling upwardly. This is a substantial convenience over inserting a pry beneath the anchor plate to raise the latter, with the danger of injuring the turf or the driving or putting green.

From the foregoing it will be seen that my invention provides a very simple and inexpensive practice device which may be readily anchored to and removed from the ground, and which is well designed to enable a player using the same to test both the force and the accuracy of his golf ball strokes.

While I have shown a preferred embodiment of the invention, minor details thereof may manifestly be changed within the scope and purview of the appended claims.

I claim:

1. In a golf stroke practice device of the captive ball type, the combination of a flat base plate having a central upstanding lug and means for anchoring said plate to the ground, a cylinder directly mounted on said lug by a ball and socket joint and carrying a distance scale, a piston and piston rod in said cylinder, a coil spring encircling said piston rod opposing outward movement of said piston, a pointer slidable over said scale and actuated in an outward direction by said piston, spring friction means carried by said pointer engaged with said cylinder for retaining said pointer in any position to which it is moved by said piston, a cord connected to the outer end of said piston rod, and a ball attached to said cord.

2. In a golf stroke practice device of the captive ball type, the combination of a base member and means for anchoring the same to the ground, a longitudinally slotted cylinder having a flexible joint connection to said base member and carrying a distance scale, a piston and piston rod in said cylinder, a coil spring encircling said piston rod opposing outward movement of said piston, a pointer having a shank portion in and slidable lengthwise of the slot of said cylinder, and a foot portion within the cylinder lying in the path of said piston, a cord connected to the outer end of said piston rod, and a ball attached to said cord.

3. In a golf stroke practice device of the captive ball type, the combination of a base member and means for anchoring the same to the ground, a

longitudinally slotted cylinder having a flexible joint connection at its inner end to said base member, a removable centrally apertured cap on the outer end of said cylinder, a piston and piston rod in said cylinder, said rod extending through and beyond the aperture of said cap, a coil spring encircling said piston rod and confined endwise between said piston and said cap, a pointer having a shank portion in and slidable lengthwise of the slot of said cylinder, and a foot portion within the cylinder lying in the path of said piston, spring means carried by said pointer engaged with said cylinder for frictionally holding said pointer in set position, a cord connected to the outer end of said piston rod, and a ball attached to said rod.

4. In a golf stroke practice device of the captive ball type, the combination of a base member and means for anchoring the same to the ground, a longitudinally slotted cylinder having a flexible joint connection at its inner end to said base member, a centrally apertured cap on the outer end of said cylinder, a piston in said cylinder having a rod extending through and beyond the aperture of said cap, a spring in said cylinder confined endwise between said piston and said cap, a pointer having a shank portion slidable in the slot of said cylinder and a base portion lying in the path of said piston, said shank portion having a transverse hole, a spring in said hole with its ends bearing frictionally on the side walls of said slot, a cord connected to the outer end of said piston rod, and a ball attached to said rod.

5. An anchor for a force measuring golf practice device, consisting of a flat metal plate formed with spaced holes adjacent the edges thereof, pins adapted to be driven through said holes into the ground, said pins having heads adapted to overhang the edges of said plate and terminating above the plane of the top surface of the latter, and an integral upstanding lug on said plate having means for connecting thereto a flight registering device.

6. An anchor for a force measuring golf practice device, consisting of a flat, generally triangular metal plate formed with holes through the corner portions thereof, pins adapted to be driven through said holes into the ground, each of said pins having a head formed as a lateral extension of its body portion of sufficient length to overhang the edges of said plate and terminating above the plane of the top surface of the latter, and an integral substantially central upstanding lug on said plate having means for connecting thereto a flight registering device.

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