May 21, 1940. L. T. MARTIN ET AL 2,201,697

GOLF PRACTICING DEVICE

Filed June 12, 1939

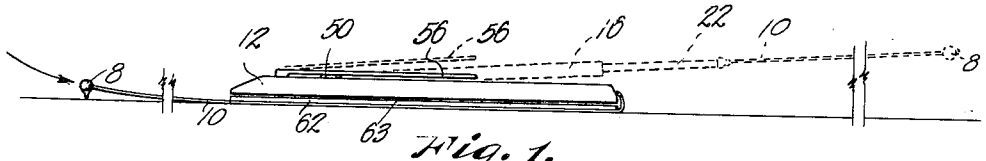

Fig. 1.

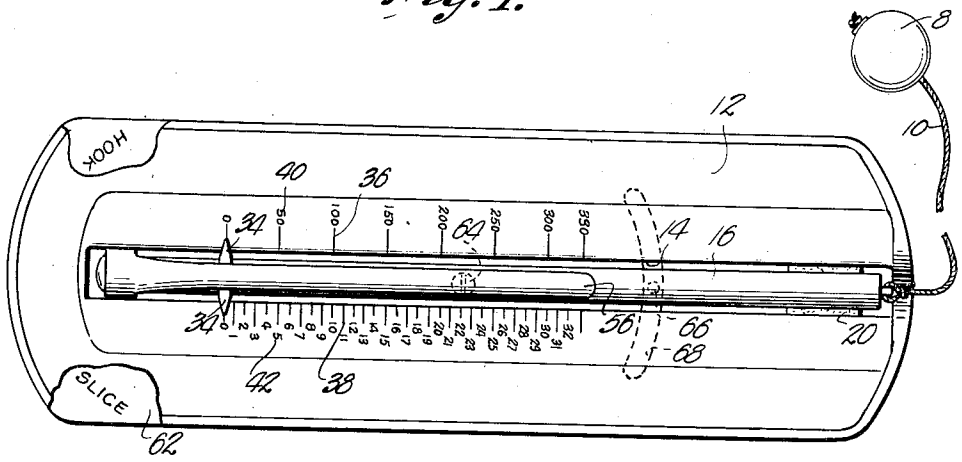

Fig. 2.

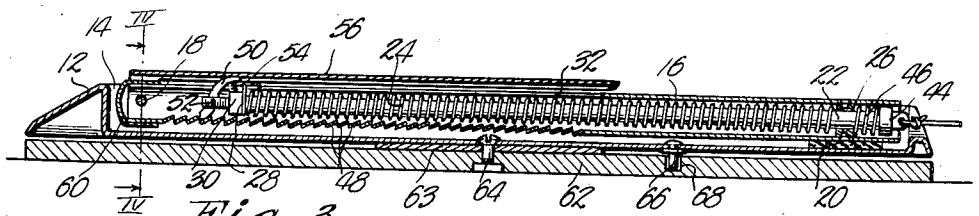

Fig. 3.

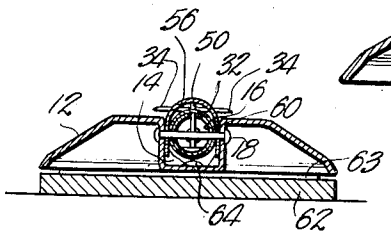

Fig. 4.

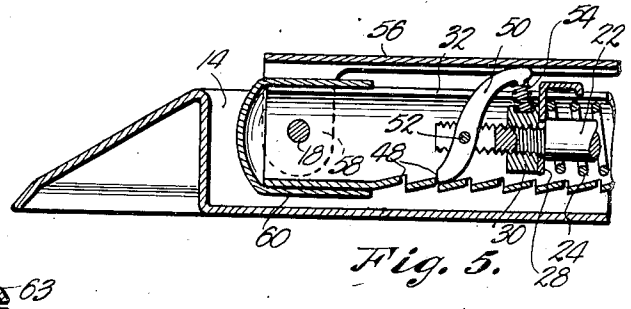

Fig. 5.

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Patented May 21, 1940 2,201,697

UNITED STATES PATENT OFFICE

2,201,697

GOLF PRACTICING DEVICE

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Application June 12, 1939, Serial No. 278,620

7 Claims. (Cl. 265—21)

This invention relates to amusement devices and particularly, apparatus for practicing the game of golf, and the primary object is to provide portable structure, having a golf ball associated therewith, which when struck, will cause an indication of the force exerted to the end that accuracy and driving power may be developed by the user.

One of the important objects of this invention is the provision of a golf practicing device having as a part thereof, a uniquely disposed plunger actuated by an anchored golf ball when the same is struck, which plunger is yieldably held at one end of its path of travel by means permitting longitudinal movement when the anchored golf ball is struck and that serves as a retrieving part when the releasable securing means on the plunger is manually operated by the player.

A further aim of this invention is to provide an amusement device of the aforementioned character wherein is incorporated a tubular arm that houses a longitudinally movable plunger, whereon is mounted a releasable dog, which progressively engages a series of teeth as the plunger is drawn outwardly from one end of its path of travel.

An even further object is to provide in a golf practicing device, unique means for manually releasing locking mechanism, which means comprises a pivotally mounted shield that frictionally engages a locking dog throughout its path of travel back to a normal position, after the dog and associated parts have been forced from the normal position by the striking of the golf ball associated therewith.

Many additional objects of the invention will appear during the course of the following specification, referring to the accompanying drawing, wherein,

Figure 1 is a side elevational view of a golf practicing device, made in accordance with this invention.

Fig. 2 is a top plan view of the golf practicing device.

Fig. 3 is a longitudinal central sectional view through the device.

Fig. 4 is a vertical cross sectional view taken on line IV—IV of Fig. 3; and,

Fig. 5 is an enlarged fragmentary detailed sectional view through a portion of the golf practicing device, showing the relation of most of the principal elements thereof.

In practicing the game of golf, it is desirable to employ a captive ball 8, carried at one end of a flexible cord 10, the other end of which is attached to a recording mechanism for the purpose of indicating to the player the force and accuracy of his stroke.

In the preferred embodiment of this invention, base 12 is formed of any suitable material and provided with a longitudinal, central groove 14 wherein is disposed tubular arm 16, one end of which is pivotally attached to base 12 through the medium of pin 18. The other end of arm 16 is free to raise and lower about the axis of pin 18 and a cushion 20 should therefore, be provided to overcome noise and shock.

Plunger 22 slidably carried within arm 16 is yieldably maintained at one end of its rectilinear path of travel by a spring 24 that is coiled thereabout. One end of spring 24 is in engagement with bearing 26 within arm 16, near the free end thereof, while the other end of spring 24 bears against plate 28 secured to plunger 22 by nut 30, that is in screw-threaded engagement with the reduced, bifurcated inner end of plunger 22.

This plate 28 extends upwardly through a longitudinal slot 32 formed along the upper portion of arm 16, and the outwardly extending part of plate 28 is formed to project laterally and present a pair of pointers 34 which overlie scales 36 and 38 marked directly on the upper face of base 12.

As illustrated in Fig. 2, scales 36 and 38 are each provided with indicia 40 and 42 respectively, that indicate to the player the amount of force that has been exerted against ball 8. The tension of spring 24 is such as to present as far as possible, an accurate reading in yards driven.

The end of plunger 22 adjacent to the free open end of arm 16, has a cap 44 thereon that presents a shoulder against which rests one end of buffer spring 46; the other end of spring 46 engages bearing 26 when spring 24 moves plunger 22 to the normal position, illustrated in Fig. 3. Cap 44 serves as a coupling between flexible cord 10 and plunger 22.

The means for releasably holding plunger 22 in any one of a number of stations along its path of travel is in the nature of a plurality of ratchet teeth 48, formed in the lower portion of arm 16 and over which rides dog 50, pivotally secured in the bifurcated, reduced end of plunger 22 by pintle 52.

A spring 54 yieldably maintains the lower end of dog 50 in engagement with teeth 48. The upper end of dog 50 extends outwardly through slot 32 and to a position beneath shield 56 that extends longitudinally along arm 16 thereabove

to overlie slot 32. Shield 56 should be co-extensive with slot 32 so that when the device is assembled the slot will not show and a smooth appearance will be presented.

Shield 56 has a pair of opposed ears 58 that embrace the pivotally mounted end of arm 16 upon which is fastened a cap 60. Such arrangement of parts allows assembly without difficulty and also insures that shield 56 and arm 16 will move about a common axis, that of pin 18.

When ball 8 is struck, plunger 22 will be moved outwardly from the open end of arm 16 to compress spring 24. Points 34 will travel above the two scales 36 and 38 and when the force, exerted upon ball 8, is spent, plunger 22 will be held in the extended position by dog 50.

Dog 50 is released merely by a downward pressure on shield 56 and when such pressure is imparted to this shield, it will move about pin 18 and compress spring 54 to lift the lower end of dog 50 out of engagement with one of teeth 48. Before pressure on shield 56 can be released, spring 24 will have returned plunger 22 to the normal point of beginning. The nature of spring 24 is such that dog 50 may be frictionally engaged by shield 56 throughout the time it is traveling from the station attained by striking ball 8 to the normal place of beginning.

In practice it has been found that shield 56 may be held down by merely resting the golf club thereon. In driving ball 8, it should be placed in longitudinal alignment with the major axis of plunger 22 and behind base 12 as shown in Fig. 1. After the ball is struck, it assumes that position shown in dotted lines of Fig. 1 where arm 16 is raised about pin 18.

When ball 8 is struck and not driven forwardly parallel to the longitudinal axis of the device, a whipping of cord 10 occurs that is overcome by the movement of base 12 about a pivotal connection.

Plate 62 carries a bearing plate 63 upon which is mounted base 12 and through which passes pivot pin 64. A guide stub 66 that travels in arcuate slot 68 formed in plate 62 limits the movement of body 12 about pin 64.

The upper face of plate 62 may have wording such as shown in Fig. 2, to indicate to the player whether his stroke has been a "slice" or a "hook."

Only the preferred form of the invention has been illustrated and described, and it is desired to be limited in the enjoyment thereof, only by the scope of the appended claims.

Having thus described the invention, what is claimed as new and desired to be secured by Letters Patent is:

1. A golf practice device comprising a base; a scale on the base; a tubular arm mounted on the base and provided with a longitudinal slot; a plunger slidably carried within the arm; a pointer on the plunger extending through the slot and overhanging said scale; means for yieldably maintaining the plunger at one end of its path of travel; a flexible cord having one end thereof secured to the plunger; a ball attached to the other end of the cord; and means for releasably securing the plunger and pointer at any one of a number of stations along the path of travel thereof, said tubular arm being pivotally secured at one end thereof to the base, the plunger being movable outwardly from the other end of the arm when force is exerted on the ball by driving the same along a line substantially parallel to the longitudinal axis of the arm and in a direction outwardly from said other end of the arm.

2. A golf practice device comprising a base; a scale on the base; a tubular arm mounted on the base and provided with a longitudinal slot; a plunger slidably carried within the arm; a pointer on the plunger extending through the slot and overhanging said scale; means for yieldably maintaining the plunger at one end of its path of travel; a flexible cord having one end thereof secured to the plunger; a ball attached to the other end of the cord; means for releasably securing the plunger and pointer at any one of a number of stations along the path of travel thereof; and a shield overlying the slot, movable to release the securing means after the plunger has reached any one of said stations.

3. A golf practice device comprising a base; a scale on the base; a tubular arm mounted on the base and provided with a longitudinal slot; a plunger slidably carried within the arm; a pointer on the plunger extending through the slot and overhanging said scale; means for yieldably maintaining the plunger at one end of its path of travel; a flexible cord having one end thereof secured to the plunger; a ball attached to the other end of the cord; means for releasably securing the plunger and pointer at any one of a number of stations along the path of travel thereof; and a shield overlying the slot, movable to release the securing means after the plunger has reached any one of said stations, said shield being pivotally mounted on said arm and substantially co-extensive with the slot therein.

4. A golf practice device comprising a base; a scale on the base; a tubular arm mounted on the base and provided with a longitudinal slot; a plunger slidably carried within the arm; a pointer on the plunger extending through the slot and overhanging said scale; means for yieldably maintaining the plunger at one end of its path of travel; a flexible cord having one end thereof secured to the plunger; a ball attached to the other end of the cord; a series of teeth on the arm; a dog carried by the plunger for progressive engagement with the teeth as the plunger moves longitudinally along the tubular arm; a spring for releasably holding the dog in engagement with one of the teeth; and a shield pivotally mounted on the arm overlying the slot.

5. A golf practice device comprising a base; a scale on the base; a tubular arm mounted on the base and provided with a longitudinal slot; a plunger slidably carried within the arm; a pointer on the plunger extending through the slot and overhanging said scale; means for yieldably maintaining the plunger at one end of its path of travel; a flexible cord having one end thereof secured to the plunger; a ball attached to the other end of the cord; a series of teeth on the arm; a dog carried by the plunger for progressive engagement with the teeth as the plunger moves longitudinally along the tubular arm; a spring for releasably holding the dog in engagement with one of the teeth; and a shield pivotally mounted on the arm overlying the slot, said dog having a portion thereof projecting outwardly through the slot for engagement by the shield when the same is moved about its pivotal connection to release the dog.

6. A golf practice device comprising a base; a scale on the base; a tubular arm mounted on the base and provided with a longitudinal slot; a plunger slidably carried within the arm; a

pointer on the plunger extending through the slot and overhanging said scale; means for yieldably maintaining the plunger at one end of its path of travel; a flexible cord having one end thereof secured to the plunger; a ball attached to the other end of the cord; a series of teeth on the arm; a dog carried by the plunger for progressive engagement with the teeth as the plunger moves longitudinally along the tubular arm; a spring for releasably holding the dog in engagement with one of the teeth; and a shield pivotally mounted on the arm overlying the slot, said dog having a portion thereof projecting outwardly through the slot for engagement by the shield when the same is moved about its pivotal connection to release the dog, the projecting portion of said dog being in sliding engagement with the shield throughout its path of travel whereby the dog is held out of engagement with the teeth as the plunger is moved through its path of travel in one direction and as the shield is held against the dog with sufficient force to overcome the action of the last mentioned spring.

7. A golf practice device comprising a base; a scale on the base; a tubular arm mounted on the base and provided with a longitudinal slot; a plunger slidably carried within the arm; a pointer on the plunger extending through the slot and overhanging said scale; means for yieldably maintaining the plunger at one end of its path of travel; a flexible cord having one end thereof secured to the plunger; a ball attached to the other end of the cord; a series of teeth on the arm; a dog carried by the plunger for progressive engagement with the teeth as the plunger moves longitudinally along the tubular arm; a spring for releasably holding the dog in engagement with one of the teeth; and a shield pivotally mounted on the arm overlying the slot, said dog having a portion thereof projecting outwardly through the slot for engagement by the shield when the same is moved about its pivotal connection to release the dog, the projecting portion of said dog being in sliding engagement with the shield throughout its path of travel whereby the dog is held out of engagement with the teeth as the plunger is moved through its path of travel in one direction and as the shield is held against the dog with sufficient force to overcome the action of the last mentioned spring, said first mentioned spring serving to yieldably retard the movement of the plunger in one direction when the ball is driven and to force the plunger in the other direction when the dog is held out of engagement with the teeth.

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