May 13, 1952 G. A. HARTUNG 2,596,682

GOLF PUTTING PRACTICE DEVICE

Filed April 20, 1950

Fig. 1

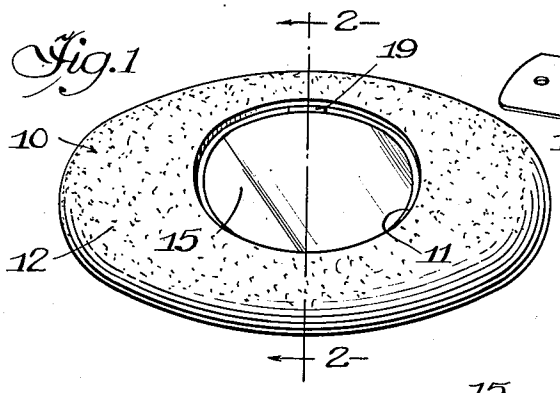


Fig. 3

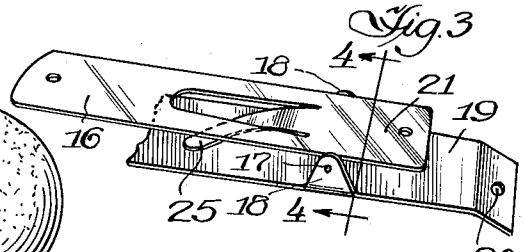


Fig. 4

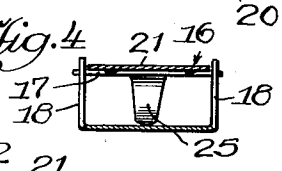


Fig. 2

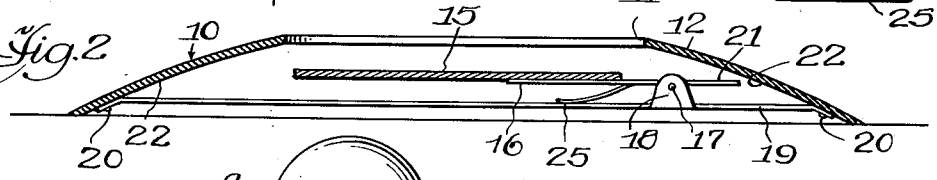


Fig. 5

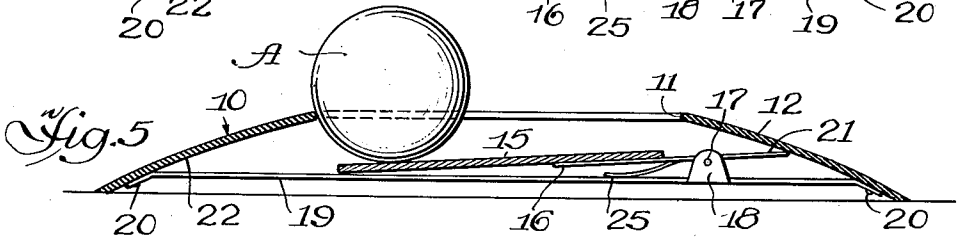


Fig. 6

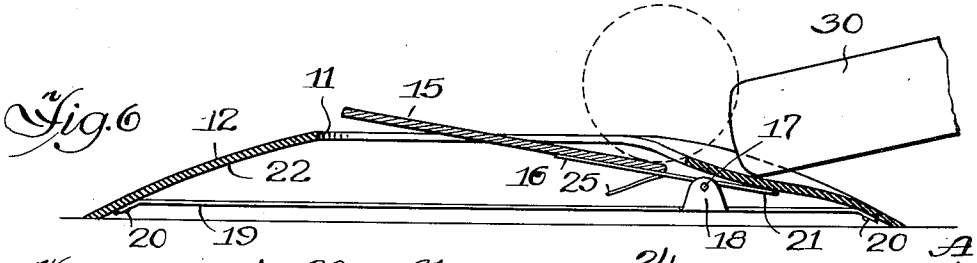
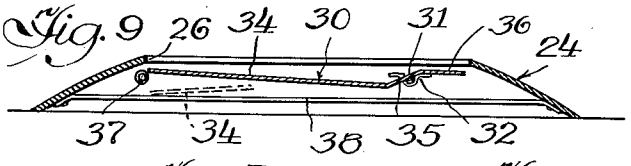


Fig. 9



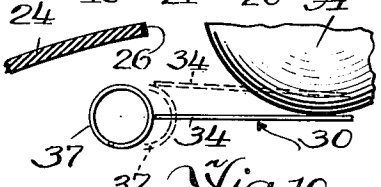


Fig. 10

Fig. 7

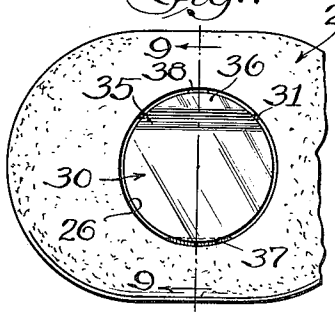
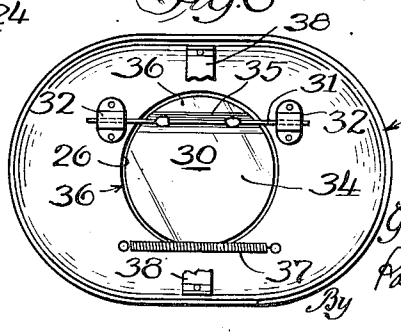


Fig. 8



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GOLF PUTTING PRACTICE DEVICE

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2 Claims. (Cl. 273—36)

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This invention relates to improvements in golf putting practice devices and has for its principal object to provide a simple and inexpensive device simulating a golf hole adapted for putting practice either on the floor at home or on an outdoor putting surface.

Numerous putting practice devices have heretofore been employed with which a golf ball can be putted into a circular area approximately the size of a standard golf hole as used on outdoor golf courses. Some of these devices employ a plurality of hinged segments with upstanding flanges arranged circumferentially around the so-called "hole" so that a hinged segment will be tipped as the ball approaches the hole to permit the ball to lodge within the hole area and be retained therein when the tipped hinged segment resumes its original position. Other devices have a raised or mound-like area with a hole cut at an elevated point thereon so that the ball can be putted into the hole by propelling it upwardly along an inclined approach. With either of these devices, however, it is usually necessary for the player to lean over and pick the ball out of the "hole" after he has made his putt.

There are also certain more complicated golf putting practice devices wherein a special ball-ejecting mechanism is installed consisting of a system of arms and levers connected to a plate mounted for vertical movement within the hole, and arranged for ejection of the ball by operation of a foot lever projecting from near the base of the putting device.

In carrying out my present invention, a simple and effective putting practice device consists of an elevated mound, preferably made of semi-flexible material such as rubber, having a hole or "cup" cut in the raised central area thereof, and with an ejecting plate having a hinged connection beneath the rim of the cup, which plate is normally held in a generally horizontal position below the rim of the cup, but is arranged to be depressed by the weight of the ball whenever the latter falls into the cup. The plate is further arranged so that it can be tilted upward by depressing a predetermined area on the lip or rim of the cup by any suitable means, such as the golf club or the foot of the player, so that the player can retrieve the ball from the hole without stooping over.

The invention may best be understood by reference to the accompanying drawing, in which:

Figure 1 is a perspective view of one embodiment of my invention;

Figure 2 is an enlarged sectional view taken on line 2—2 of Figure 1;

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Figure 3 is an enlarged fragmentary detail of the tilting support for the ejector plate;

Figure 4 is a section taken on line 4—4 of Figure 3;

Figure 5 is a sectional view similar to Figure 2 but showing the ejector plate in depressed position after a ball has been putted into the cup;

Figure 6 is a view similar to Figure 5 but showing the ejector plate in elevated position to aid in removing the ball from the hole;

Figures 7 and 8 are top and bottom views, respectively, of a modified form of practice device embodying certain features of my invention, with certain portions broken away;

Figure 9 is a transverse section taken on line 9—9 of Figure 7;

Figure 10 is an enlarged detailed section taken on line 10—10 of Figure 8 to show the operation of the yieldable supporting means for one edge of the tilting ejector plate of the form shown in Figures 7, 8 and 9.

Referring now to the embodiments of my invention disclosed in the drawing, one form of practice device illustrated in Figures 1 to 6, inclusive, consists of a mound-like base 10 having a hole or cup defined by a rim 11 formed in the central area thereof. The cup is preferably of standard diameter employed for golf holes. The base may be of any size or shape desired, although the upper surfaces 12 surrounding the cup are preferably inclined upwardly from all directions so as to simulate in general a moderately inclined approach to the cup, as is often the case with golf cups used on regular outdoor putting greens. In the form shown herein, said base is generally elliptical in plan view.

The base is preferably hollow beneath the hole and is made of a semi-flexible material, such as a fabric-reenforced rubber of the kind commonly employed in so-called "boots" used in reinforcing pneumatic tires. The exposed upper surface of the base may have a suitable covering material such as green felt or the like, if desired.

A ball ejector plate 15 is mounted within the hollow base for vertical movement with respect to the cup rim 11. In the form of device shown in Figures 1 to 6, said ejector plate consists of a substantially flat circular plate of sheet metal suitably fixed on a supporting arm 16, one end of which extends outwardly beyond the edge of said plate and is hinged as by a pivot pin 17 fixed to the arm 16 and having its ends journalled in upstanding supports 18, 18 bent upwardly from opposite sides of a cross bar 19. In the form shown, the cross bar 19 spans the width of the base 10 along the bottom thereof and is con-

nected as by rivets 20, 20 to the under face 22 of the base adjacent opposite margins thereof, as clearly shown in Figure 2.

The pivot pin 17, on which the arm 16 has rocking movement, is disposed at a point substantially below the rim 11 of the cup. Said arm 16 has an integral lever portion 21 projecting outwardly of the pivot pin 17 with its end extending beneath the overlying portion of the base adjacent the rim 11.

The ejector plate 15 is normally supported by the arm 16 in a substantially horizontal position at a sufficient distance below the rim 11 of the cup to permit a ball to lodge within the cup when it is fairly "holed out" therein at a moderate speed. The normal putting position of the plate 15 is substantially horizontal, as illustrated in Figure 2, wherein it will be noted that the outer end of the lever portion 21 is positioned adjacent to, but not in contact with, the under face 22 of the base 10 at a point intermediate the rim 11 and the outer edge of the base 10.

Suitable means are provided to aid in holding the plate 15 and its supporting arm 16 in this normal generally horizontal position, the means disclosed in Fgures 1 to 6 consisting of a tongue 25, which may for convenience consist of a depressed portion formed integral with and cut out of the main body portion of the arm 16 and depressed from said body portion adjacent the axis of the latter. The end of the tongue 25 is arranged to engage the upper surface of the cross bar 19 inwardly of the axis of said plate so as to form a stop to limit the downward swinging movement of the plate 15 and hold it normally in its generally horizontal putting position. The tongue 25, however, is preferably sufficiently narrow and yieldable to permit the plate 15 to be depressed against the yielding tension of said tongue whenever a ball, as indicated at "A" in Figure 5, is "holed out" in the cup.

It will be noted further from Figure 5 that, when a ball is so holed out as to depress the plate 15, the ball will roll down the tilted plate away from its hinged axis. The rocking movement of the supporting arm 16 thus produced is such as to raise the outer end of the lever portion 21 substantially into engagement with the under face 22 of the base 10, or at least closely adjacent thereto.

After the ball has been holed out, and the parts have assumed their positions shown in Figure 5, the device may then be operated for ejecting the ball from the hole as indicated in Figure 6, wherein the head of a golf club, indicated at 30, or any other similar means, such as the toe of the player, may be brought into engagement with the area of the base 10 above the lever portion 21 so as to flex and depress the body of the base downwardly in this area and thereby depress the lever portion 21 to move the plate 15 into an oppositely inclined position, indicated in Figure 6. The amount of force exerted by the player in this area may, of course, be varied as desired.

If sufficiently sudden pressure is exerted, plate 15 may, in some instances, be flipped upwardly with sufficient rapidity to eject the ball bodily from the hole. But, as a preferred method of operation, pressure may be gradually applied to tilt the plate 15 so that the ball is caused to roll toward the pivoted edge of the plate 15 with sufficient impetus to roll over the rim at or adjacent the depressed area. Even though the ball may not be given sufficient impetus in this manner, it can be moved to an elevated position near the lip of the cup, in position to be knocked away from the cup, either by the club head or the foot of the player, as the case may be.

From the above description, it will be understood that the area of the base adjacent the rim of the cup immediately above the lever portion 21 is sufficiently rigid to support a golf ball when the latter is putted thereover, but that said area is sufficiently flexible to permit the ejector plate to be actuated in the manner described when sufficient positive pressure is applied to this area, or even to an area immediately adjacent and exterior to the lever portion 21.

In the modified form of device shown in Figures 7 to 10 inclusive, a hollow base 24, generally mound-like in shape and having a hole or cup defined by a rim 26 in the central area thereof, may be substantially similar to the base and cup described in connection with the form shown in Figures 1 to 6. In the modified form, however, an ejector plate 30 is mounted on a pivot bar 31 supported at opposite ends in trunnion bearings 32, 32 secured to the under face of the base, as shown in Figure 8.

The plate 30 is circular in form so as to conform generally with the size of the cup. The arrangement is such that the plate is pivoted about the axis defined by the pivot pin 31 disposed a slight distance below the rim of the cup and along a chord which is approximately midway between the center of the cup and one edge thereof. The major portion of the plate, indicated at 34, is substantially flat and extends toward and beyond the center of the hole from its pivotal axis. The larger portion 34 merges into a bent portion 35 at a slightly rising angle to the portion 34. In the form shown, the pivot pin 31 is secured to the under face of the upwardly bent portion 35. Beyond the latter portion 35, the plate is again bent to form a terminal portion 36 disposed in a plane substantially parallel with the larger portion 34 of said plate.

The ejector plate 30 is normally held in "putting" position by a suitable flexible detent, herein consisting of a coil spring 37 having its opposite ends secured to the under face of the hollow base 24 on the opposite side of the hole from the pivotal support of said plate. The spring 37 is disposed in a horizontal position in spaced relation below the rim of the cup and is normally under tension so as to provide a support for the edge of the plate 30 at a point removed from the hinged axis of the latter. The arrangement is such, however, that a very moderate downward pressure exerted on the larger portion 34 of said plate, such as that imposed by the weight of the golf ball, is sufficient to move the spring outwardly from its plate-supporting position shown in dotted lines in Figure 10, so as to permit the plate to swing downwardly until it engages and rests upon a cross bar 38 at the bottom of the base 10. Should the cross bar 38 be omitted, the free end of the plate will be limited by engagement with the floor or other surface on which the base may be supported.

As will be seen in Figure 9, the larger portion 34 of the ejector plate 30 is preferably disposed at a slight, upwardly-inclined angle to the retaining spring 37 when the plate is supported in putting position, but it will be understood that said larger portion 34 will assume a downwardly-inclined angle at its lower limit of movement, as indicated in dotted lines in Figure 9. As a result,

when a golf ball is putted fairly into the cup, the weight of the ball will release the plate 30 into a position tilted away from the pivotal axis of said plate toward the opposite side of the hole.

This tilting movement of the plate portion 34 results in an upward-tilting movement of the shorter terminal portion 36 of the plate with respect to the lip of the cup. The terminal portion 36 is arranged with respect to the pivot pin 31 so that its extreme edge will be elevated in the fully tilted position of the plate to a point where said terminal portion 36 is substantially at the same level as, or slightly above, the adjacent lip of the cup, as desired. In either case, the entire ejector plate may be bodily rocked about its axis by depressing the terminal portion 36 by any suitable means, such as a golf club or the foot of the player.

Although such rocking movement may, in some instances, be effected by direct engagement of terminal portion 36, yet in practice it will usually be found preferable to depress the flexible area of the cup immediately adjacent the terminal portion 36 of the plate, while simultaneously exerting pressure directly on said terminal portion.

The slightly inclined portion 35 is arranged to give the ball a slight upward "hop" as it approaches the depressed portion of the cup, so as to aid in causing the ball to roll out of the hole.

It will be understood now that, while the modified form of device shown in Figures 7 to 10 varies slightly as to details of construction, yet in the main this modified form can be operated on substantially the same principle as the form in Figures 1 to 6; that is to say, the ejector plate in both instances is normally supported in putting position substantially below the rim of the cup. A well-aimed putt which lodges the ball within the cup will depress the main portion of the ejector plate about a hinged axis, and said plate can thereafter be flipped upwardly by depressing a semi-flexible area of the base immediately adjacent the rim of the cup to engage and depress a member rigid with the ejector plate, thus facilitating the ejection or removal of the ball from the cup, and finally restoring the plate to its normal putting position.

Although I have shown and described certain embodiments of my invention, it will be understood that I do not wish to be limited to the exact

construction shown and described, but that various changes and modificaions may be made without department from the spirit and scope of the invention as defined in the appended claims.

I claim:

1. In a golf putting practice device, a mound-like base having smooth inwardly and upwardly inclined approach surfaces terminating in an overhanging circular lip defining a hole simulating a conventional golf cup hole, said hole being shallow in relation to the diameter of a golf ball, a portion of said overhanging lip being semi-flexible but of sufficient rigidity to support a golf ball when the latter is rolled thereover, a supporting member within said base and connected to the latter in spaced relation below said overhanging lip, a plate hinged on said supporting member in spaced relation below said overhanging lip, and rockable on an axis substantially below and adjacent said flexible lip portion, said plate being of sufficient size to support a ball deposited in said hole and normally disposed below the rim of the cup and tiltable upwardly on its axis into an elevated position at an angle to the lip of the cup to facilitate removal of the ball from the latter, and an actuating member for said plate extending outwardly beneath the flexible lip portion of said base in position to be depressed for tilting said plate into such elevated position when such overhanging flexible lip portion is positively depressed.

2. A device in accordance with claim 1, wherein the actuating member for the plate consists of a lever arm rigid with said plate and extending laterally therefrom beyond its point of pivotal connection to said support.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,287,903	Daily	Dec. 17, 1918
1,723,547	Hart	Aug. 6, 1929
1,776,161	Lockwood	Sept. 16, 1930
1,823,487	Clear	Sept. 15, 1931
2,508,100	Clarke	May 16, 1950