Sept. 29, 1953 G. A. HARTUNG 2,653,815

GOLF PUTTING PRACTICE DEVICE

Filed June 27, 1950

Fig. 1

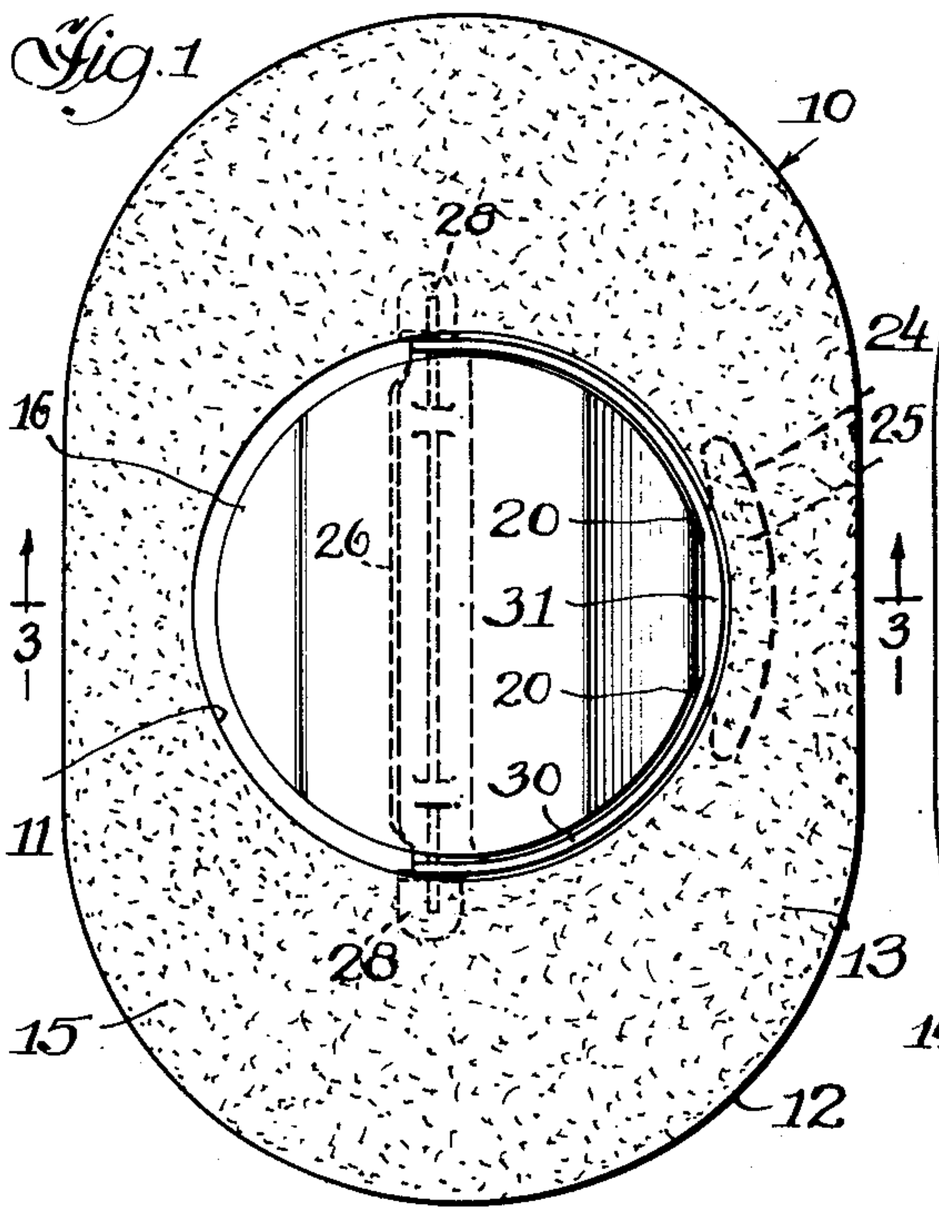


Fig. 2

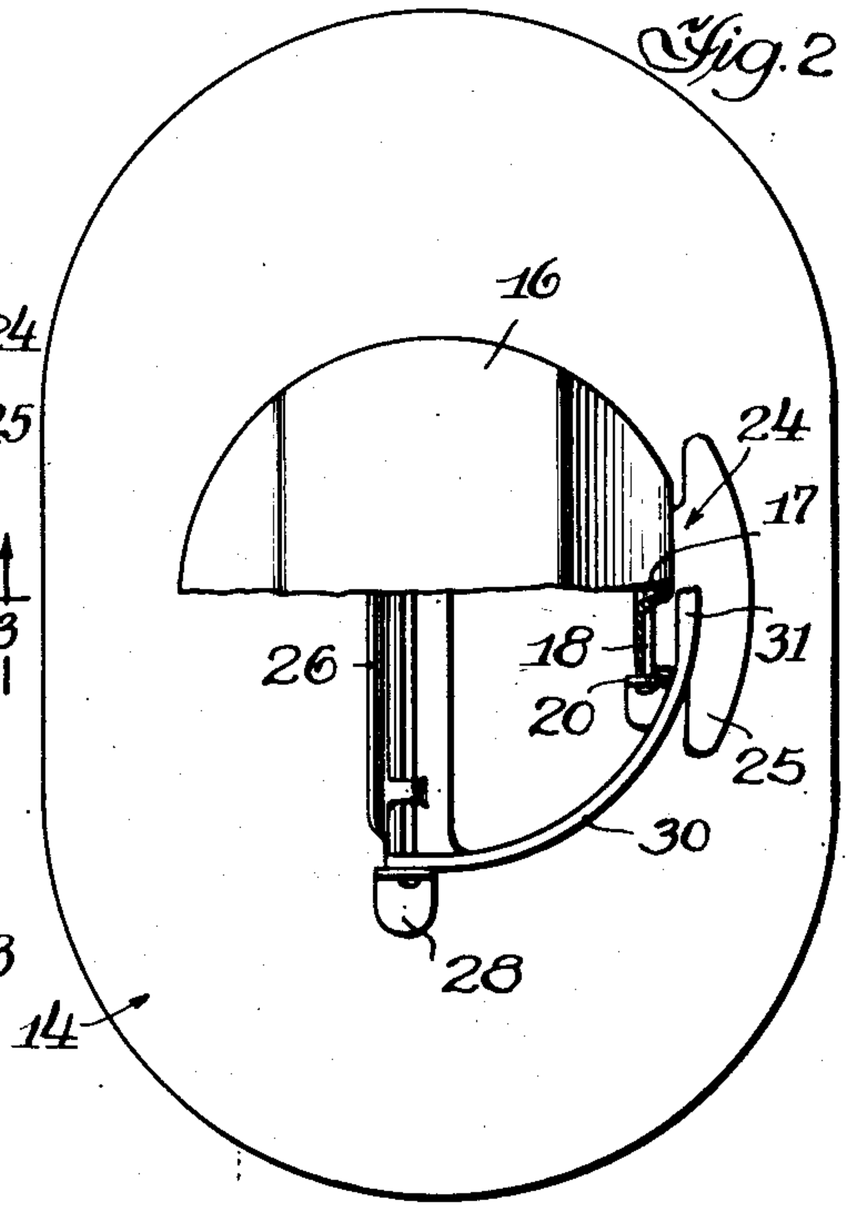


Fig. 3

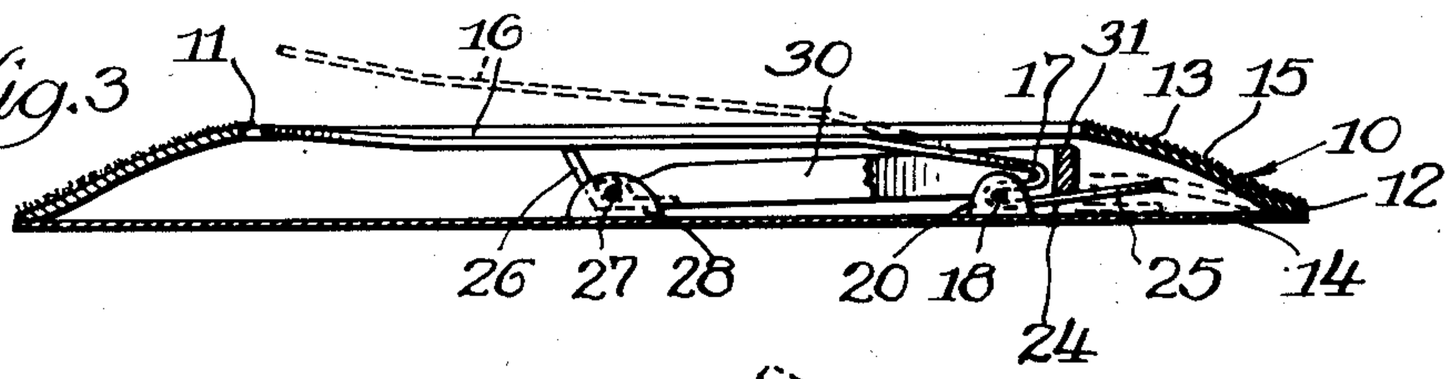


Fig. 4

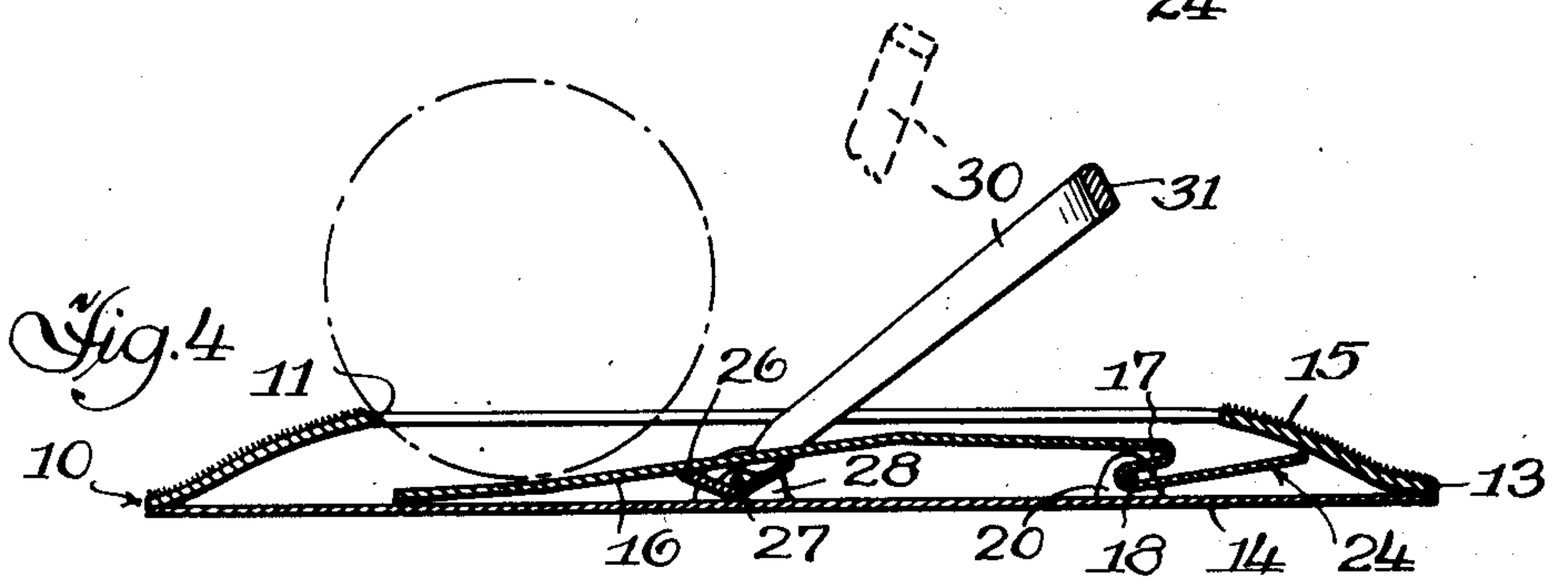
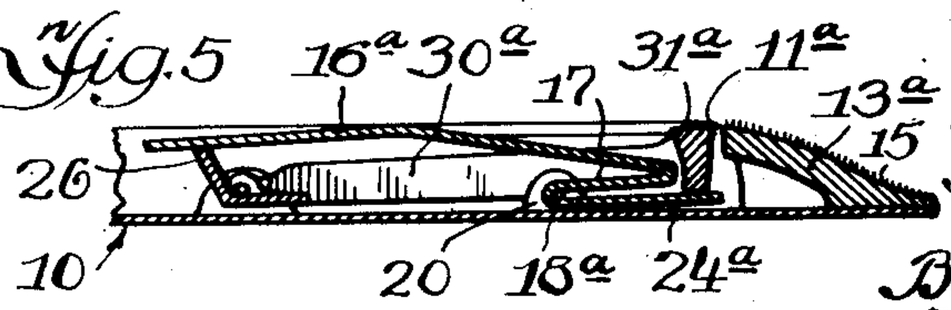


Fig. 5



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Patented Sept. 29, 1953

2,653,815

UNITED STATES PATENT OFFICE

2,653,815

GOLF PUTTING PRACTICE DEVICE

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Application June 27, 1950, Serial No. 170,645

4 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.

The present invention utilizes many of the features disclosed in my copending application bearing Serial Number 157,090, filed April 20, 1950, now Patent No. 2,596,682, but with a modified and improved leverage means associated with the ball ejecting plate and including a semi-circular bail arranged to be automatically elevated from one side of the cup so as to aid in retaining the ball when it is fairly putted into the cup, and also designed to aid in resetting the plate mechanism to a position for the next putt. With the improved construction of the present invention, the putting device may be more compact, and of considerably less overall height and yet retain a ball more effectively when putted fairly into the hole.

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

Figure 1 is a plan view of one embodiment of my invention showing the plate mechanism in its normal position set for receiving a ball;

Figure 2 is a view similar to Figure 1 but showing the inclined cover portion surrounding the hole removed so as to expose the plate assembly and with a part of the plate assembly broken away to show details of construction thereof;

Figure 3 is an enlarged section taken generally on line 3—3 of Figure 1;

Figure 4 is a sectional view similar to Figure 3 but showing the ejector plate in depressed position after a ball has been putted into the cup and with the bail automatically raised above the level of the rim;

Figure 5 is a fragmentary section similar to Figure 3 showing a modified form of putting device.

Referring now to the embodiments of my invention disclosed in the drawing, one form of practice device is illustrated in Figures 1 to 4, inclusive, and consists of a mound-like base 10 having a hole or cup defined by a rim 11 formed at the central area of an elevated body portion 12. The upper approach surfaces 13 of the body portion 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 in regular outdoor putting greens. The base also has a bottom pan 14 which may coincide in outer dimensions with the body portion

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12. In the form shown herein, the base is generally elliptical in plan view but it will be understood that said base may be of any suitable shape.

The base 12 is hollow beneath the hole and, in the form shown in Figures 1 to 4 inclusive, the approach surfaces 13 of the base are made of semi-flexible material, such as a fabric-reenforced rubber of the kind so commonly employed in so-called "boots" used in reenforcing pneumatic tires. The exposed upper face of the approach surfaces 13 may have a suitable covering 15 of green felt or the like, if desired.

A ball ejector plate 16 is mounted within the hollow base for vertical movement with respect to the cup rim 11. Said ejector plate consists of a disc-like member of substantially rigid material, such as metal or plastic, having a diameter slightly less than that of the rim 11. In the form shown, the major portion of the plate is substantially flat but with one edge thereof disposed at a slight downward angle to a relatively narrow neck 17 bent downwardly and reversely to form a support for a pivot pin 18 on which the plate 16 is hinged. The pivot pin 18 is suitably connected in a horizontal position to the neck 17 as by welding, and the outer ends of said pivot pin are hinged in upstanding supports 20, 20 on the base plate 14. The neck 17 below the hinged edge of the plate 16 is extended outwardly from the pivot pin 18 to form a lever arm 24 with a widened arcuate terminal portion 25 projecting laterally beneath the overlying hollow area of the adjacent approach surface 13 outside the rim 11.

The ejector plate 16 is normally supported with its major portion substantially parallel with, but slightly below, the cup rim 11, by a rocking lever 26 which engages the under surface of the plate along a line substantially parallel with the pivotal axis of said plate 16, and slightly more than one-half the distance from the hinged edge of the plate to the opposite side of the cup. The rocking lever 26 consists of an elongated metal or plastic strip bent at an angle of slightly more than ninety degrees and having a pivot pin 27 fixed along its apex. The pivot pin has its ends journalled in upstanding supports 28, 28 fixed to the bottom plate 14 beneath the opposite edges of the rim 11 of the cup.

An arcuate bail 30 is arranged to fit immediately adjacent and within the rim of the cup and extending slightly more than one-half the diameter of the latter. The ends of said bail are fixed to the opposite ends of the rocking lever 26 so that said lever is disposed at a slightly obtuse angle to the body portion of said bail. The rock-

ing lever 26 and bail 30 are so arranged that, when the bail is in lowered position slightly below the rim of the cup and resting on the lever arm 24 of the plate adjacent the hinged edge of said plate, the rocking lever 26 will be disposed at an outwardly inclined angle to support the free end of plate 16, as shown in full lines in Figure 3. The plate and leverage system will be maintained in this normal putting position by the weight of the bail 30 until the leverage system is overbalanced by imposing additional weight, such as that of a golf ball, upon the upper surface of the plate.

The bail 30 is preferably provided with a laterally thickened portion 31 along its center portion farthest removed from the rocking lever 26 and adjacent the hinged edge of the plate 16, to add to the effective weight of said bail, and to assist in operating the leverage mechanism.

The relatively narrow end portion of the ejector plate 16 is preferably bent upwardly at a slight angle from said plate, to aid in ejecting the ball from the hole, as will presently be described.

The use and operation of the form of putting device shown in Figures 1 to 4 is as follows:

The ejector plate 16 is normally disposed in its "putting" or ball-receiving position shown in Figure 3 when the rocking lever 26 is elevated to a nearly upright position, and with the bail 30 depressed below the level of the cup rim 11, as shown in Figure 3. When a golf ball is putted fairly into the hole from any direction, the weight of the ball as it lodges upon any portion of the plate 16 is sufficient to overcome the supporting leverage set up by the lever 26 and bail 30, and cause the plate to drop immediately into the position shown in Figure 4, and simultaneously cause the bail 30 to swing upwardly into an upwardly inclined position above the rim of the cup, substantially as shown in the same figure.

The weights of the bail and plate, and the position of the rocking arm 26 relative to the plate 16 are preferably adjusted so that the bail will stay in its raised position as long as a ball rests on said plate, but the plate will be restored to its normal putting position by the weight of the bail, as soon as the ball is removed from the plate.

The plate 16, rocking member 26 and bail 30 thus cooperate to form a counterbalancing lever system, in which the rocking member and bail are movable across an intermediate, dead-center position relative to the plate by any excess weight imposed on the plate, and the lever system is returned across its dead-center position by the weight of the bail when the excess weight is removed from the plate.

The elevation of the bail 30 above the rim, as above described, aids materially in retaining the ball in the hole. This is of especial importance in a device of this character where a limited amount of vertical space is available for the ball to drop to its lowest permissible position below the rim of the cup. The elevation of the bail is particularly effective in putting devices of the hinged plate type where the player wishes to putt into the hole from the side opposite the hinged edge of the ejector plate. For instance, it will be observed from Figure 4 that, when the ball is putted from the left of the hole with any substantial speed, the ball depresses the ejector plate when it first enters the hole, but would tend to continue its travel in an upwardly inclined direction along the plate, so as to roll out of the hole, instead of lodging therein. By providing the bail 30 as disclosed herein, the bail 30 is automatically raised into a position to restrain the ball and hold it in the hole area whenever the ball is putted from opposite the hinged edge of the ejector plate 16. When the ball is putted from the same side as the hinged edge of the ejector plate, the ball can drop a sufficient distance below the rim of the cup, as shown in Figure 4, so as to be retained within the cup under ordinary conditions.

The bail 30 is often found of further advantage in ordinary practice, when the ball enters from any side of the hole in a generally tangential direction, and continues to spin or roll around the rim of the cup after it has lodged therein. In such instances, the ball is effectively restrained from rolling out of the cup on the shallower side of the hole where the plate is hinged.

After the ball has been lodged in the cup, as shown in Figure 4, it can be ejected from the hole by various methods, or by a combination thereof, as follows:

The head of a golf club or similar means, such as the toe of the player, may be employed for depressing the bail from its elevated position shown in full lines in Figure 4 to its lower position shown in Figure 3, in which case a quick upward flip of the ball will result, which in many cases may be sufficient to eject the ball from the hole. Another more positive method of ejection consists in applying pressure of a golf club or the foot of the player upon the flexible area of the inclined surface 13 immediately above the lever arm 24 of the plate 16 so as to flex and depress said inclined surface downwardly in this area and thereby depress the lever 24 to move the plate with its major portion into an upwardly inclined position above the rim of the cup, as indicated in dotted lines in Figure 3. This movement relieves the weight of the plate 16 on the rocking arm 26 so that the bail 30 will automatically drop by gravity into position to set the leverage in its normal putting position as soon as the plate is permitted to return to supported position on the rocking lever 26.

The amount of force exerted by the player for depressing the rim of the cup for elevating the plate may of course be varied as desired. If sufficiently sudden pressure is exerted, said plate may be flipped upwardly with sufficient rapidity to eject the ball bodily from the hole. Under ordinary conditions however, it will usually suffice to elevate the plate gradually so that the ball will be rolled by gravity toward the hinged end of the plate and out of the hole. If the ball is not given sufficient impetus in this manner, it still can be elevated near the lip of the cup in position to be knocked away either by the club head or the foot of the player, if desired.

A further advantage of my putting device, including the hinged bail 30, will be noted in that the bail can be raised to a still more upright position as indicated in dotted lines in Figure 4, so as to permit the insertion of the toe of the golf club beneath the bail for lifting the device bodily from the ground without stooping. It will be found that the entire putting device can be lifted in this manner with a ball resting in the hole, if desired.

In the modified form of device shown in Figure 5, the construction and operation are substantially similar to that shown and described in connection with the foregoing Figures 1 to 4, excepting that the modified form is designed for use in instances where the approach surfaces

13*a* adjacent the cup rim 11*a* are made substantially rigid instead of flexible. In the latter case, the bail 30 is used for resetting the ejector plate 16*a* in its normal putting position, and the lever 24*a* connected to the hinged edge of plate 16*a* is only of sufficient length to extend beneath the bail 30*a* when the latter is lowered into engagement therewith. In the modified form of Figure 5, the hinge pin 18*a* may be arranged at a greater distance from the extreme edge of the plate so as to afford somewhat more leverage for lifting said plate.

The plate is restored to its normal putting position entirely by downward movement of the bail 30*a*. If additional upward flipping movement of the plate is desired, the bail is depressed by direct engagement on its thickened center portion 31*a* by the toe of a golf club or the toe of the player. The upper surface of said thickened center portion 31*a* of the bail is normally disposed at a level almost flush with the rim of the cup so as to make said bail more readily accessible for this purpose.

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 modifications 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 practice device, an elevated base having a golf cup formed in its upper face with upwardly inclined approach surfaces about the rim of said cup, an ejector plate hinged for rocking movement within said base on an axis adjacent one edge of said cup, said plate being tiltable on its hinged axis for elevating a ball relative to the rim of the cup to facilitate removal from the latter, means movably supporting said plate at a point removed from its hinged axis, including a rocking support on said base, substantially semi-circular bail having its opposite ends operatively connected with said support, said bail fitting between said plate and being normally depressible into non-ball retarding position adjacent the cup rim when said rocking support is in position to hold said plate in a relatively elevated putting position below said cup rim and

said rocking support being tiltable by said plate to swing said bail upwardly to a ball-retaining position above said cup rim when said plate is forcibly depressed.

2. A device in accordance with claim 1, wherein the plate, rocking support and bail comprise a counterbalancing lever system, in which the rocking support is pivotally movable with the bail to elevate the bail to its ball-retaining position when excess weight is imposed upon the plate to depress the latter, but the weight of said bail is such as to restore the plate to its normal putting position when the excess weight is removed from the plate.

3. A device in accordance with claim 1, wherein the plate has an actuating lever arm extending outwardly beyond the hinged axis of said plate, in position to be engaged by said bail for tilting the plate above its normal putting position by depressing said bail.

4. A device in accordance with claim 1, wherein the inclined approach surface of said base is flexible adjacent the hinged edge of said plate, and said plate has an actuating lever arm integral therewith and extending outwardly of said rim below said flexible rim area in position to be depressed when said flexible rim area is depressed for tilting said plate above its normal putting position and the bail is adapted to rest on said lever arm in position to be depressed for tilting the plate above its normal putting position when the bail and lever arm are depressed.

GEORGE A. HARTUNG.

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