March 12, 1963 H. B. GROW 3,081,091

PRACTICE BALL

Filed March 8, 1962 2 Sheets-Sheet 1

Fig. 1.

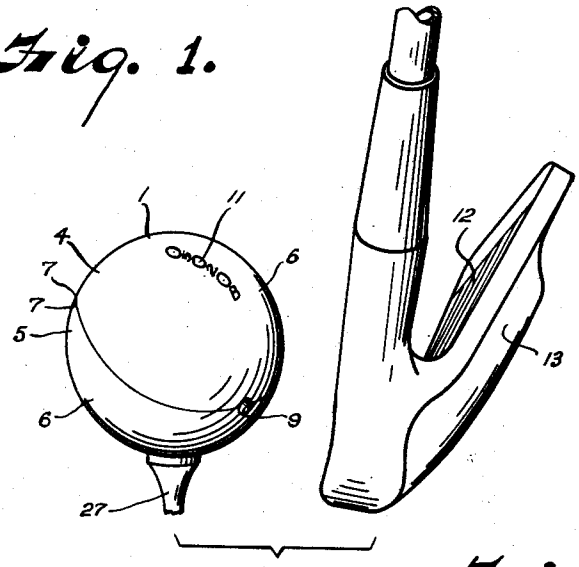


Fig. 4.

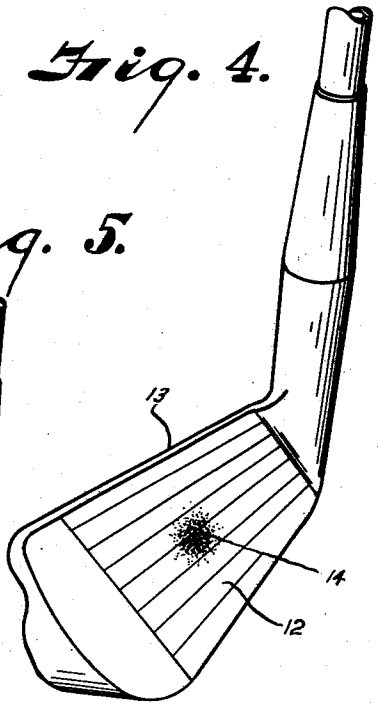


Fig. 2.

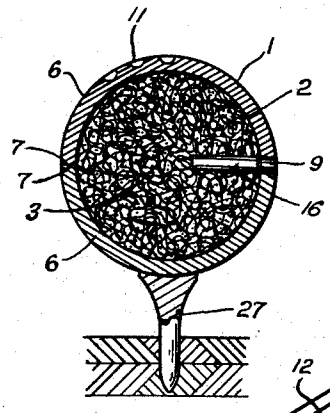


Fig. 5.

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Fig. 3.

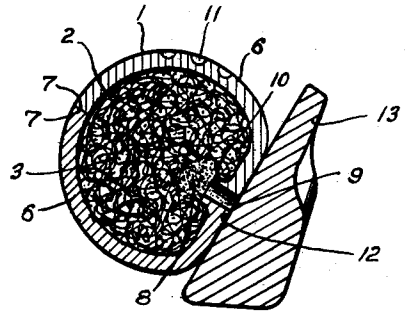


Fig. 6.

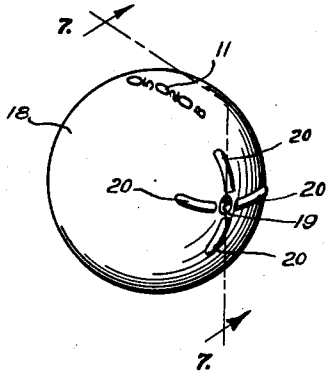


Fig. 9.

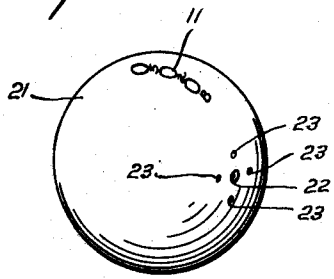


Fig. 7.

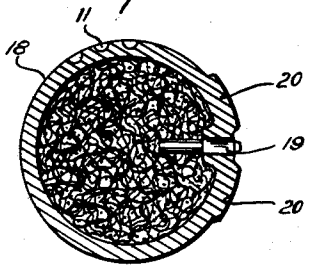


Fig. 10.

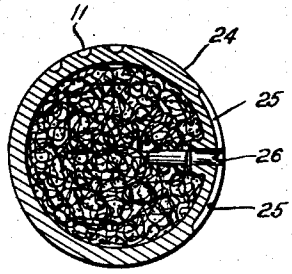
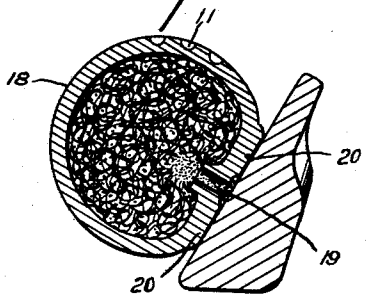


Fig. 8.



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3,081,091

PRACTICE BALL

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Filed Mar. 8, 1962, Ser. No. 178,358
10 Claims. (Cl. 273—186)

This invention relates to a practice ball for use in perfecting a golfer's swing of different clubs employed in the game of golf.

It is well known that the shaft of each club must be properly gripped and that the swing must be such that the face of the club, whether it be one of the woods or one of the irons, must meet the ball at right angles to the point of impact. Otherwise, the ball will not take the desired flight or attain the distance for which the club was designed.

It is, therefore, a principaly object of the present invention to provide a practice ball for exuding a marking medium on the face of the club, by which a golfer may evaluate and perfect his swing for each one of the clubs he may use.

In carrying out the invention, a practice ball is provided of hollow character, to contain a fibrous material impregnated and/or coated with a powdery substance, so that a portion or portions of the powdery substance will be exuded onto the face of the club in such manner that the markings and positions thereof produced on the face of the club will indicate imperfection in the swing of the club that results in a poor contact of the club with the ball.

Further objects of the invention are to provide the ball with marks representing the different clubs, in order to position the exudation portion of the ball at an angle corresponding with the loft on the face of a club to be used; to provide a practice ball that may be easily recharged with marking material as needed; to provide a practice ball that is wear resistant and not easily destroyed by constant impacts; and to provide a practice ball constructed to produce markings on the faces of the various clubs that are easily interpreted and which are readily wiped from the faces of the clubs after each practice swing.

In accomplishing these and other objects of the invention as hereinafter described, I have provided improved structure, the preferred forms of which are illustrated in the acocmpanying drawings, wherein:

FIG. 1 is a perspective view of one form of the practice ball constructed in accordance with the present invention, and showing the ball in position for a practice swing by an iron club, for example, a No. 5 iron.

FIG. 2 is a diametrical section through the practice ball, showing the inner fibrous material and the manner of replenishing the marking material.

FIG. 3 is a diametrical section through the practice ball and showing the head of a golf club in section as it makes impact with the ball.

FIG. 4 is a perspective view of the head of a golf club after a practice hit, and showing the marking on the face thereof for indicating a near perfect contact with the ball.

FIG. 5 is a similar perspective view of the head of a club, illustrating a marking that results from an improper swing.

FIG. 6 is a perspective view of a modified form of practice ball incorporating ribs radiating from the orifice through which the marking material exudes, to give a freer egress of the marking material at the time of impact of the face of the club with the ball.

FIG. 7 is a diametrical section through the modified form of the invention illustrated in FIG. 6.

FIG. 8 is a cross sectional view of the form of the invention of FIG. 7 and head of a golf club at the moment of impact.

FIG. 9 is a perspective view of another modified form of the present invention, in which a plurality of small orifices are arranged about a central opening at the point of impact to give another pattern of the marking material.

FIG. 10 is a cross sectional view of still another form of the invention, incorporating radial grooves for distributing the exuded marking material.

Referring more in detail to the drawings, and first to the form of the invention illustrated in FIGS. 1, 2 and 3:

1 designates a practice golf ball of the same size as a regulation golf ball. The ball is constructed of a resilient material, such as rubber, plastic, or the like, capable of withstanding the vigorous impacts of a golf club, but incapable of long flight, so that the ball is not difficult to retrieve. The ball is sufficiently hollow as shown at 2 in FIG. 3 to contain a fibrous material 3. One way of manufacturing the ball may be to provide two hemispherical sections or parts 4 and 5, each having a wall 6 provided with an edge face 7. The fibrous material 3 may be a loose material such as strands of oakum, glass wool, yarn, or the like, capable of holding a powdery marking material 8 thereon and in distribution within the assembled ball. The fibrous material 3 need not be packed tightly, since its only purpose is to contain the powdery material in distribution to be readily exuded through an orifice 9. The two sections 4 and 5 of the ball may be secured together with the edge faces 7 in matching abutment by a suitable cement or by fusing them together by appliaction of heat and/or pressure. The material of the ball around the orifice 9 may be reinforced by an inner encircling rib 10.

In order to position the ball for the particular club to be used, the exterior face of the ball is provided with a series of pips or other indications 11, each identified by an initial or by a number corresponding to the numbers of the golf clubs to be used. For example, the ball illustrated shows pips representing a five iron, a two iron and a brassie. The pips 11 are arranged in a circumference of the ball that includes the orifice 9, and they are spaced different distances from the orifice 9, so that when a club is selected, the ball is positioned with the pip 11 designating the club uppermost. This positions the orifice 9 directly in a position so that if the golfer executes a proper swing the face of the club will strike the ball squarely on the orifice 9. The impact will flatten the ball at the side of the impact, as shown in FIG. 3, to compress the fibrous material sufficiently to loosen the powdery substance at the site of the orifice. If the club strikes the ball correctly and in accordance with the loft of the club, the powdery material discharging through the orifice on the face 12 of the club 13 will show a clearly defined circular spot 14, as shown in FIG. 4.

The contact point of the club with the ball may also be noted to see if the swing of the club was such as to locate the markings in the desired spot on the face of the club. If a streak 15 appears as radiating from the spot 14, as shown in FIG. 5, it indicates that the shaft of the club was not gripped properly, the swing was not in line with the ball, or that the club got too far under or over the ball.

A few practice shots with the practice ball and study of the resultant markings will enable the player to perfect his swing so as to attain the marking as shown in FIG. 4. If like swings are made during play of the game, a golfer will greatly improve his score, because each shot will be more accurately executed.

After the practice ball has been used for some time, the powdery material may become exhausted to the point where it may not mark the face of the club, in which

case the fibrous material may be recharged with marking material through the orifice **9**. One convenient way to accomplish a recharge is to provide the powdery material in the form of cylindrical rods that may be broken off into pellets **16** and inserted through the orifice, as shown in FIG. 2. Upon striking the ball on the next practice shot the pellet shatters to supply the powdery material. The powdery material may be chalk dust or any material that will adhere to the face of the club until the result can be noted. However, the affinity of the material for the face of the club should not be such that the marking is difficult to remove after each practice swing.

The form of the invention shown in FIGS. 6 to 8, inclusive, shows a practice ball **18** having an orifice **19** and radiating from the orifice is a plurality of radially arranged ridges **20** that are spaced apart to allow the powder to more easily discharge from the orifice and be distributed on the face of the club at points intermediate the ridges. The practice ball shown in FIGS. 6 to 8 is otherwise constructed in the manner of the practice ball previously described.

The form of the invention shown in FIG. 9 shows a practice ball **21** having an orifice **22** similar to the ball illustrated in the first described form of the invention, and spaced from the orifice is a circular series of apertures **23**. In this instance, powdery material is forced through the apertures **23** to produce marking upon the face of the club. If the markings are equally formed on the face of the club, a proper swing has been executed. However, if the marking at one side of the central marking is blurred or appears splattered, the shot has been dubbed by an imperfect swing.

The form of the invention shown in FIG. 10 is similar to the form shown in FIG. 6, with the exception that instead of the ridges **20**, the face of the ball **24** is provided with grooves **25** radiating away from the orifice **26**. In this instance, the marking which results on the face of the club will be in the form of a cross, and the intensity of the arms of the cross will indicate whether or not a swing has been properly executed for the particular club used.

While I have referred to the construction of the practice ball as composed of hemisphere shaped sections, it is obvious that the ball may be formed as a one piece hollow sphere, and the fibers, together with the marking material, may be injected through the orifice that is provided through the wall of the ball.

Assuming that the practice ball is being used to perfect the swing of a golfer, the ball may be set upon a tee **27** if desired, or the ball may be placed upon the ground in simulation of a natural lie. In either case, the ball is positioned so that the marking on the ball corresponding with the number on the iron selected is uppermost and directly in view during the swing. When thus placed, the orifice in the ball is positioned corresponding to the loft of the particular club.

The golfer will take the proper stance and make his swing in accordance with the best practice advocated by the professional golfer. If everything is executed in a proper manner, the face of the club should make contact with the ball squarely at the point of the orifice, in which case the marking produced on the face of the club will appear as a circular spot, as shown in FIG. 4, but if the shot was dubbed in any manner the result is a blurred marking, as shown in FIG. 5. By noting the direction of the blur, the golfer can identify the faults in his swing. He can then make the necessary corrections until a series of proper markings have been recorded.

Upon depletion of the marking material with use of the ball, it may be replenished by inserting one or more pellets **16** by way of the orifice.

The forms of invention shown in FIGS. 1 to 6 and the forms shown in FIGS. 9 and 10 all operate as above described. The only difference is in the shape of the marking.

What I claim and desire to secure by Letters Patent is:

1. A practice ball for ascertaining the effectiveness of the swing of a club used in striking the ball by producing a marking on the face of the club, said practice ball comprising
   - a hollow body,
   - a marking material contained in the hollow of said body, and
   - said body having an exudation portion to be struck by the club for exuding the marking material onto the face of the club responsive to impact of the club on said ball.

2. A practice ball for ascertaining the effectiveness of the swing of golf clubs used in playing the game of golf, said ball comprising
   - a hollow body,
   - a marking material contained in the hollow body,
   - said body having an exudation portion to be struck by the face of the club for exuding the marking material onto the face of the club head responsive to impact of the club head on the ball, and
   - indicator means on the ball for positioning the ball with said exudation portion located in accordance with loft of the face of the club.

3. A practice ball for ascertaining the effectiveness of the swing of golf clubs used in playing the game of golf, said ball having
   - a spherical body,
   - a marking material incorporated into the body,
   - said body having an exudation portion to be struck by the face of the club for marking the face of the club head responsive to impact of the club head on the ball, and
   - indicator means on the ball for positioning the ball in accordance with loft of the face of the club.

4. A practice ball for ascertaining the effectiveness of the swing of a golf club by producing marking on the face of the club head, said ball comprising
   - a hollow spherical body having a resilient wall,
   - a fibrous material confined in the hollow body,
   - a powdery marking medium carried by the fibrous material, and
   - said body having an orifice in said wall for exuding the marking medium onto the face of the club responsive to impact of the club on the ball.

5. A practice ball for ascertaining the effectiveness of the swing of a golf club by producing marking on the face of the club head, said ball comprising
   - a hollow spherical body having a resilient wall,
   - a fibrous material confined in the hollow body,
   - a powdery marking medium carried by the fibrous material,
   - said body having an orifice in said resilient wall for exuding the marking medium onto the face of the club responsive to impact of the club on the ball, and
   - indicator means on the spherical body for positioning the ball with said orifice located in accordance with loft of the face of the club.

6. A practice ball for ascertaining the effectiveness of the swing of a golf club by producing marking on the face of the club head, said ball comprising
   - a hollow spherical body having a resilient wall,
   - a fibrous material confined in the hollow body,
   - a powdery marking medium carried by the fibrous material,
   - said body having an orifice in said wall for discharging the marking medium onto the face of the club responsive to impact of the club on the ball, and
   - a plurality of pips on the outer surface of the ball at different distances from the orifice and having designations for different clubs used in the game of golf to facilitate positioning of the ball with the orifice located in accordance with loft of the face of a particular club to be used in striking the ball.

7. A practice ball as described in claim 6,

in which the resilient wall has ridges extending radially from said orifice to facilitate discharge of the marking medium from said opening.

8. A practice ball as described in claim 6,

in which the resilient wall has grooves radiating from the orifice to facilitate discharge of the marking medium from said orifice when the face of the club is in contact with the ball.

9. A practice ball as described in claim 6,

in which the resilient wall has a circular series of apertures about said orifice to discharge the marking medium onto the face of the club.

10. A practice ball for ascertaining the effectiveness of the swing of a club used in striking the ball by producing a marking on the face of the club, said ball comprising

a hollow spherical body,

a marking medium contained in the hollow of said body, said body having a portion provided with an orifice to be struck by the club for discharging the marking medium on the face of the club responsive to impact of the club on said ball, and

a chalk pellet for insertion into the hollow spherical body through said orifice to replenish the marking medium.

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