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SIGHTING DEVICE FOR USE WITH GOLF BALLS

Filed April 23, 1923 2 Sheets-Sheet 1

Fig. 1

Fig. 2

Fig. 3

Fig. 4

Fig. 5

Fig. 6

Fig. 7

Fig. 8

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SIGHTING DEVICE FOR USE WITH GOLF BALLS

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Inventor

W. L. R. Amesbury

By Mark C. Bix, A.B.
To all whom it may concern:

Be it known that I, WHEATON LIPYEATT RALEIGH AMESBURY, a subject of the King of Great Britain and Ireland, and residing at 31 West Lodge Avenue, Acton, London, W. 3, England, have invented a certain new and useful Sighting Device for Use with Golf Balls, of which the following is a specification.

This invention relates to the playing of the game of golf and has for its object to facilitate correct striking of the ball according to the particular club to be used, so that the amount of the backward or upward swing will vary. For example, the driver or the brassie club is used for driving the ball the greatest distance and therefore requires the maximum backward swing, whilst the iron clubs are used for relatively shorter distances. It is not always easy for a player to know that the backward swing and direction of his club are exactly right for the particular club that he is using, and this invention is designed to form a mechanical aid whereby the player may properly control the direction and extent of such swing.

On assuming the correct stance when addressing the ball at golf, the body of the player necessarily assumes a certain relative position to the object aimed at, and this relativity will vary whilst the club is rising on its back or upward stroke or swing. At the culminating point of the upward swing immediately prior to the commencement of the downward swing, the eye of the player will be observing the ball over a certain point situated somewhere on, or at the point of, the left shoulder and the experienced player will know that viewing the ball at that particular part of the shoulder, will result in a long drive, provided the essentials and principles of the game are observed, and it naturally follows that a succession of swings viewed over or through the same point will yield the same result. The same thing will occur with swings of lesser extent, the view point over the arm and shoulder being correspondingly different.

If these various view points are carefully marked or indicated on the player's sleeve, they will form indices of the several swings, and act somewhat in the manner of the back sight of a rifle when firing, indicating to the player, when the index mark comes into alignment with the ball and his eye, that the limit and correct direction of the backward swing have been attained.

The present invention therefore consists in an indicator or sighting device attached to or forming a part of the player's sleeve at various points between the point of the shoulder to just below the angle of the elbow, which as the player swings around during the back-stroke or up-stroke of his club, comes into alignment between his eye and the ball and thus forms an indication that the limit of the backward swing has been attained, and the player has performed a correct pivoting movement.

It will be understood that the exact construction of the indicator may vary very considerably. For example, it may take the form of a line of stitching of special coloured thread, applied in one or more positions on the shoulder and sleeve which correspond to the strokes required according to the club it is desired to use. Buttons or rubber, substitutes thereof or similar articles may be adapted to the purpose, which are temporarily clipped or otherwise attached directly to the garment or by means of press studs. To allow a slight adjustment the indicator may be carried on a frame and be slidable in relatively right angled directions.

The invention will now be described with reference to the accompanying drawings which illustrate various constructive embodiments of the invention, and in which:

Figure 1 is a front elevation of one form of the sighting device,

Figure 2 is a vertical sectional elevation taken on the line 2—2 of Figure 3,

Figure 3 is a back elevation,

Figure 4 is a sectional detail on the line 4—4 of Figure 3,

Figure 5 is a front elevation of a modified form of the device,

Figure 6 is a perspective view looking on to the top of Figure 5,

Figure 7 is a vertical transverse section of Figure 5,

Figure 8 illustrates the sighting device in use,

Figure 9 is a sectional elevation of a third form of device ready for use,
Figure 10 is a side elevation partly in section of the device shown in Figure 9 when out of use.

Figure 11 is a view similar to Figure 9 and slightly modified, and Figure 12 is a sectional view of a detail in Figure 9.

Figures 13 to 17 are details hereafter referred to.

Referring to Figures 1 to 4, the device comprises a hemispherical shell a, the open side of which is internally flanged at b. The crown of the hemisphere has a hole c which forms a seating for a sphere or ball d arranged within the shell a, the ball being kept on its seating by a spring plate e extending diametrically across the open side of the shell and resting with its ends upon the internal flange f. A gap g is made in the flange so that the spring plate may pass inside the shell.

In order that the device may be conveniently attached to a coat sleeve, two curved pins g are secured to and project from the flange f. These pins, semi-circular in shape and crinkled as shown, have their heads secured in any suitable way to the flange and the arrangement shown in Figure 4 may be used. For this purpose the end of the pin is off-set at h, and passed through a securing plate j, which is seated flush in a depression k formed in the flange b. The off-set portion h fits in between the plate j and the depression k, and is clamped tight when the plate j is secured by the fastenings l.

The part of the ball d that projects beyond the seating c receives a screwed pin m terminating in a ball head n which constitutes an adjustable nipple or foresight. Carried by the stem m is a pendulum plate o of the quadrant form shown and which is weighted at its lower end. The upper part of the pendulum is formed with an adjustable extension p, pivoted flush with the pendulum o on a pin or screw q, a backsight knob r being adjustably screwed into the upper extremity of the extension p. In order that the knob r may be adjusted to vary the line of sight the extension p is pointed at s to engage any one of a series of graduations t on the rear of the pendulum o. Instead of the latter being formed with a sloping back as shown, both sides may be parallel as shown in the alternative section in Figure 15.

By reference to Figure 8, it will be seen how the device is intended to be used. The player takes his stance and with his eye on the ball raises his club, the body at the same time turning as the club is raised. The sight indicator shown at w as fastened near the base of the left sleeve is brought into the line of sight x of the player and the ball as he swings round, and when it is in register, he knows that this is the limit of the upstroke, and that in raising the club his body has performed a correct pivoting, whether the stance is central or non-central.

Should the indicator not have been attached to the sleeve in quite the correct position, and a few strokes would soon show it, the sight can be adjusted by moving the ball d through the knob n. The weighted quadrant o will in any case hang vertical with the arrow mark w central.

The indicator may also serve to impart direction to the stroke by having a line x' engraved across the lower part of the pendulum, see Figures 5 and 6. When in use the player will see the indicator more or less as in Figure 6 with the line x' visible and enable him to gauge the direction in which the ball will travel. These figures show a further modification of the device in that the foresight a is replaced by a small ring v that forms a peep sight by which the ball is visible to the player, and is not in danger of being obscured as by the knob n.

Referring now to Figures 9 to 12, a modified form of indicator is shown in which provision is made to cause it to project from the person a variable distance. For this purpose the stem such as m is made longitudinally adjustable and the hemispherical shell a has a rearward cylindrical extension w.

Referring to Figure 9, the peep sight v is formed on the end of a pin y that supports the pendulum o and screws into the end of a stem z that passes into and along a liner 15 rigidly secured in the ball d. The stem z has a number of circumferential grooves 16 to lock the stem in any desired position by means of a pointed stop pin 17 that radially engages the grooves 16. The pin is mounted in a bore 20 formed in the ball, and has a spring 18 behind it so that it may yield as the stem 15 longitudinally adjusted. A grub screw 19 secures the spring in position. To prevent the stem being wholly withdrawn, its inner end terminates in an abrupt shoulder 21 which, when engaged with the pin 17 stops further outward movement.

Owing to the cylindrical extension w, the ball d is kept pressed forward on to its seating c by a helical spring 22, abutting at its rear against a narrow plate 23 extending transversely across, with its ends fixed in the extension w. Behind the spring a dust-plate (not shown) may be arranged so as to close in the open end of the shell.

To support the pins q, the end of the extension w is detachably connected to a ring 24, by a bayonet joint 25 or otherwise the pins q form already described being carried as by screws 26 or otherwise upon one of the flat faces of the ring.
When the indicator is not in use, the ring 24 may be detached, turned round and re-fastened in the position shown in Figure 10, the pins being in a less exposed position.

Also when the device is inoperative, a cap 27 may be sprung on to the shell completely protecting the parts, the sighting knob 9 and its arm 7 being folded horizontally to fit within the cap.

In Figure 11, the stem 7 is smooth and frictionally fits the liner 15 so that it will be retained in any adjusted position. To give greater freedom to the quadrant 5 the end of the stem has a convex shoulder 28 thereon, whilst the peep sight pin 4 has a corresponding convex shoulder 29 immediately adjacent the ring 9. The pin 4 passes through the quadrant 5 somewhat loosely, the convex face of each shoulder contacting with the respective side of the quadrant.

In a still further modification the stem 7 formed with an abrupt shoulder 21 at its inner end as above described, is arranged to have a telescoping action. Between the stem 7 and the intermediate tube 30, part of which is shown detached in Figure 14. This tube is formed with an outwardly projecting pin 31 which engages with a slot 32 in the liner 15, and with a spring tonge 33 that normally presses inwards to exert friction upon the stem 7 and retain it in any adjusted position. When the stem has been drawn out to the full extent, the tonge 33 engages the shoulder 21 and further outward movement then draws along the tube 30 to the extent of the slot 32. In Figure 15, the parts are shown opened out to their fullest extent. A further alternative form is shown in Figure 17 in which the stem 7 is made as in Figure 14, but the intermediate tube 30 is formed with a bow spring 34 and an enlarged end 35 that is adapted to co-act with an outer tube 36 having an inturned end 37 to stop the movement of the intermediate tube. The tube 36 is shown as fitted within the ball 6, but this may form another telescopic tube which in its turn is secured to the ball. In this way any number of telescopic tubes may be used, which will each be fitted with a spring bow such as 34, to keep the parts firm.

In Figure 16 the end of the pin 4 is formed with an elbow 38 terminating in a tapering square shoulder 39 driven tightly into the flanges at the base of the shell 5, its end being burred over to hold it.

It will be understood from the foregoing description that a golf sight indicator is obtained by means of which a player can regulate with ease the length of upward swing for a long stroke with either a driver or brassie club, the indicator being fixed at the upper part of the sleeve; or by altering its position lower down the sleeve relatively shorter strokes with the iron club can be made with certainty.

By means of the ball mounting, the necessary adjustment is obtained to suit the player whether he assumes a central stance, or should he prefer a stance that is not symmetrical with the ball. As the player swings round in raising the club, both the foresight such as v and the back-sight such as r are brought into line with the eye and the ball, the weighted quadrant always maintaining a true vertical line. Thus the player causes two lines to be brought into register, viz.:—a short line joining the two sights v and r, and which must be vertical to the ground, and the imaginary sight line r between the eye and the ball. When these lines are in exact registration the player knows that he is standing central and vertical relatively to the ball, whilst the length of the stem may be adjusted depending upon whether he is standing vertical over the ball or back from the ball. If the player, however, prefers a non-central or non-vertical stance, the back-sight r as described is made adjustable.

The indicator is very quickly and easily attached to the sleeve by means of the curved pins, and will be very securely held if the player wears an armllet of suitable fabric inside or outside the sleeve. Instead of pins, press studs may be used.

The above described indicators may be of any suitable material and if of metal may be left dull, may be bronzed or plated, and one or more may be attached to the sleeve according to the player’s requirements. The device is not necessarily intended to teach golf to beginners, but is intended rather to improve the player’s game generally, when once the main principles of the game have been mastered.

Having now described my invention, what I claim as new and desire to secure by Letters Patent is—

1. A golf indicator comprising a holder adapted to be attached to the sleeve, a gravity indicator supported by said holder and sighting devices on the indicator, whereby as the player swings round during the back or up stroke of his club, said devices come into alignment between his eye and the ball and thus constitutes an indication that the limit of the backward swing has been reached, or that the correct pivoting movement has been performed, or both.

2. A golf indicator comprising a holder adapted to be attached to the sleeve of the player, a gravity indicator supported by said holder, said indicator having an indication thereon by the aid of which the ball may be struck so that it follows a determined direction.

3. A golf indicator comprising a holder adapted to be attached to the sleeve of the
player, a gravity indicator supported by said holder, a foresight independent of the gravitational movement of the indicator, and a backsight on said gravity indicator which sights together constitute a sighting line, which as the player swings round in raising his club, comes into alignment between his eye and the ball for the purpose described.

4. A golf indicator comprising a holder adapted to be attached to the sleeve of the player, a gravity indicator supported by said holder, a foresight independent of the gravitational movement of the indicator, a backsight on said gravity indicator, and means for adjusting the said backsight relatively to the foresight permitting the player to assume a desired stance relatively to the ball.

5. A golf indicator comprising a holder adapted to be attached to the sleeve of the player, a gravity indicator supported by said holder, a central stem therein, a foresight on said stem independent of the gravitational movement of the indicator, a backsight on said indicator, freely adapted to pivot about the stem and means whereby the stem is adjustably positioned relatively to the holder so that it may project a determined distance therefrom.

6. A golf indicator comprising a holder adapted to be attached to the sleeve of the player, a gravity indicator supported by said holder, a ball mounted central stem therein, a foresight mounted on said stem, and a backsight on said indicator freely pivoted by gravity about the stem.

7. A golf indicator comprising a holder adapted to be attached to the sleeve of the player, a gravity indicator supported by said holder, a ball mounted central stem therein, a foresight mounted on said stem, a backsight on said indicator freely pivoted by gravity about the stem, and means whereby the stem is adjustably positioned relatively to the holder so that it may project a determined distance therefrom.

8. A golf indicator comprising a holder adapted to be attached to the sleeve of the player, a gravity indicator supported by said holder, a ball mounted central stem therein, a peep sight mounted on said stem, and a backsight on said indicator freely pivoted by gravity about the stem.

9. A golf indicator comprising a holder adapted to be attached to the sleeve of the player, a stem therein carrying a peep sight, a weighted quadrant mounted on said stem and freely pivoted thereon, the upper part of the quadrant having an extension pivoted thereon that carries a backsight adjustable relatively to the quadrant according to a graduated scale if necessary for the purpose described.

10. A golf indicator comprising a holder adapted to be attached to the sleeve of the player, a stem therein carrying a peep sight, a weighted quadrant mounted on said stem and freely pivoted thereon, the upper part of the quadrant having an extension pivoted thereon that carries a backsight adjustable relatively to the quadrant, the said peep sight and back sight being each independently adjustable relatively to the holder.

11. A golf indicator comprising a holder adapted to be attached to the sleeve of the player, a gravity indicator supported by the holder, and sighting devices on the indicator for the purpose described, said holder being provided with a pair of curved crinkled pins, which are firmly anchored at one end on an internal flange formed on the back of the holder.

In testimony whereof I have signed my name to this specification.

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