

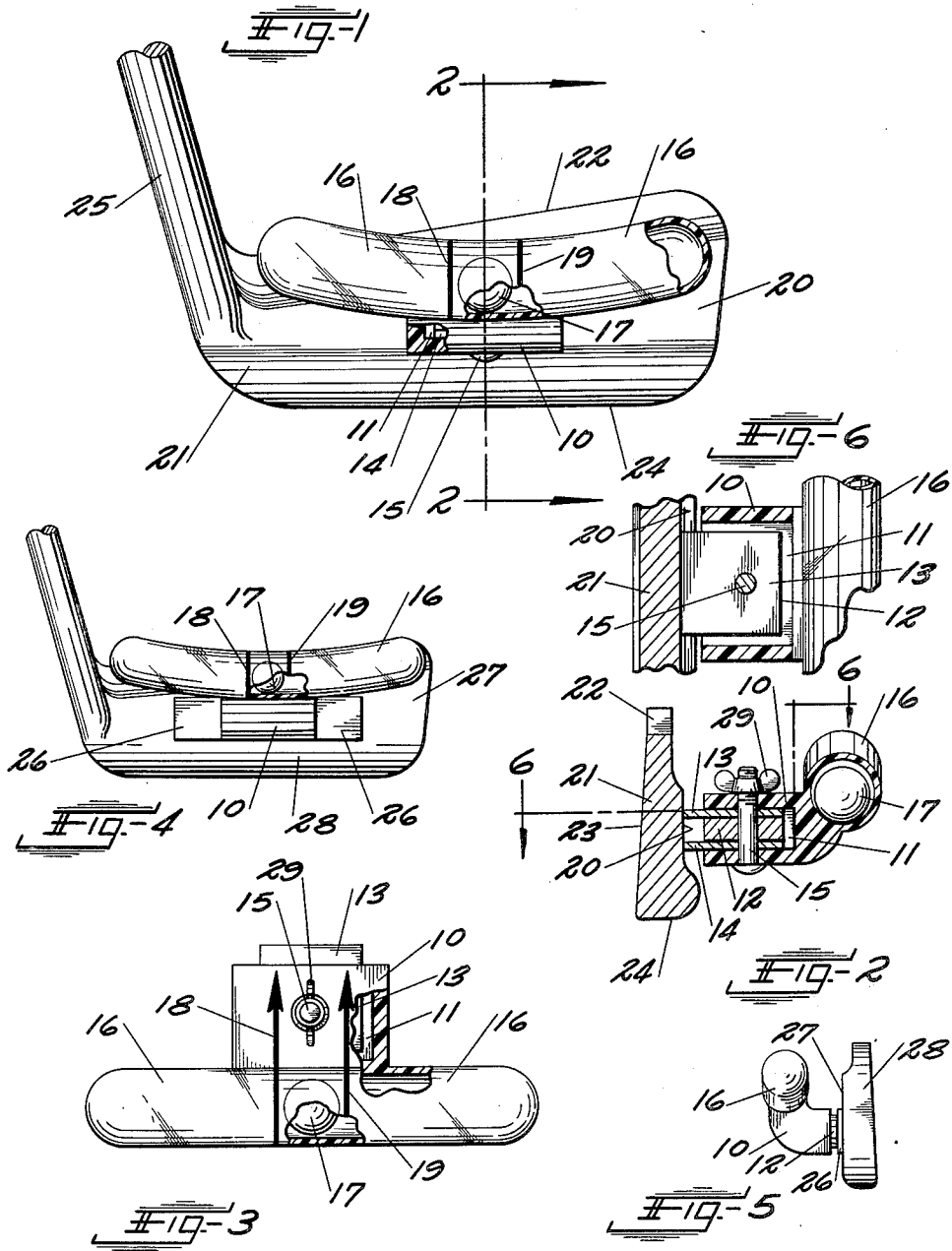
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GOLF PUTTING COORDINATOR DEVICE

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GOLF PUTTING COORDINATOR DEVICE

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2 Claims. (Cl. 273-163)

This invention relates to a device to be mounted on the back side of the head of a golf club such as a putter, whether it be ferrous or non-ferrous material, for the purpose of permitting the achievement of coordination of body and arm movements in putting.

The device is confined substantially within the projected area from the rear side of the putter head, and may be adjusted to varying angles on that back side of the head, being attached and adjusted all without the use of any tools whatsoever.

Further objects and advantages of the invention and the nature of its best form as now known to me will become apparent to those versed in the art in the following description of one particular form as illustrated in the accompanying drawing, in which

Fig. 1 is a view in rear elevation of a putter head to which the device is applied;

Fig. 2 is a section on the line 2-2 in Fig. 1;

Fig. 3 is a view in top plan and partial section of the device apart from the head;

Fig. 4 is a view in side elevation of the device carried by a wood head;

Fig. 5 is a view in end elevation of the structure of Fig. 4; and

Fig. 6, a detail in horizontal section on the line 6-6 in Fig. 2.

A body generally designated by the numeral 10 may be formed out of any suitable material, such as aluminum or plastic, and in the present form is generally rectangular in shape. A rectangular cavity 11 is formed within the body 10, and opens from the forward side thereof.

Within this cavity 11 is received a magnet 12 preferably of the ceramic type. While the magnet may have any well known shape such as horseshoe, cylindrical, and the like, this magnet 12 is herein shown as having two pole pieces 13 and 14 extending forwardly from the body 10. The magnet 12 is anchored within the body 10 by any suitable means (such as by a compressive grip), herein shown as being fixed if desired by a pin 15 of a non-ferrous nature.

At the rear upper edge portion of the body 10 is a shallow U-shaped tube 16, preferably integral with the body 10, and transparent in nature. This tube 16 is closed at both ends, and has rollably carried therewithin a ball 17. This ball 17 may be of a ceramic or plastic composition, rollable within the tube 16, however being limited in clearance, Fig. 2, from the inside wall of the tube so that the underside of the ball 17 will have a zone of contact with the floor of the tube 16 rather than a simple line contact. That is to say, the diameter of the ball 17 is just slightly less than the interior diameter of the tube 16 so that the ball 17 will be free to roll along the floor of the tube 16 and out of contact with the side walls of the tube, and yet have that zone area of contact with the floor. This freedom of roll of the ball 17 may be damped by a liquid in the tube 16.

A pair of parallel lines 18 and 19 are provided at least across the top of the tube 16, and are carried forwardly

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over the topside of the body 10, preferably ending in pointing arrows. This spacing apart of these lines 18 and 19 approximates the diameter of the ball 17, slightly exceeding that diameter as indicated in Fig. 3. These lines 18 and 19 are at right angles to the axis of the tube 16.

The device as described so far is applied to the back face 20 of a putter head 21, by positioning the magnet 12, herein shown as through the pole pieces 13 and 14, against that face, at approximately the center of mass of the head 21. Also in so doing, the entire device will be substantially below the level of the top edge 22 of the head 21 as indicated in Fig. 1. Thus it is to be seen that the entire device is confined to the back side of the putter head 21, without anything overhanging the edge 22, and without any danger of the tube 16 being brought against the ball (not shown) when it is struck. The golf ball is struck from the front face 23 of the head 21. Obviously the tube 16 may be adjusted to varying angles of inclination by means of rocking the body 10, and accordingly rocking the magnet about the back face 20 of the head 21.

In addressing the golf ball, the head 21 will be positioned to have the edge 24 adjacent the ground in a position normal for the individual, the ball 17 located between the lines 18 and 19, and those lines 18 and 19 pointed toward the hole. Then the player, in pulling the head 21 rearwardly, will note the position of the ball 17, keeping it substantially centrally located between the lines 18 and 19, and not allowing it to travel toward either end of the tube 16. This operation is to be watched in order to prevent the introduction of forces indicated by the rolling of the ball 17 toward either end of the tube 16, these forces being set up by swinging and rocking of the head 21. This ball 17 is of course within the vision of the operator at all times, as he watches the head 21 and the golf ball toward which the head is being moved, the lines 18 and 19 automatically directing the swing of the head while the ball 17 is maintained by the proper coordination of the body and the arms between the lines 18 and 19. The normal force of gravity in the absence of any centrifugal force introduced will maintain the ball 17 at the lower point of curvature of the tube 16. As a better means of understanding the shape of the tube 16 and not intended as a limitation thereof, the radius of curvature of the upper side of the tube 16 would be approximately six inches.

The body 10 and tube 16 as well as the ball 17 are of extremely light weight particularly when made out of a suitable plastic material, and the magnet 12 is quite small and of a so-called permanent nature, so that there is no tendency in the device itself tending to rock the head 21, particularly when the shaft 25 is properly gripped. The device of course may be readily removed from the head 21 simply by twisting or pulling it free of the head, all without the necessity of having to manipulate screws or clamps and the like, and yet the device will remain fixed into position once it is applied, until it is positively removed.

It is known that club heads including the putter may be made of non-ferrous materials, in which case, a length of metallic tape or a ferrous coated tape 26 may be applied as an armature to the back side 27 of the non-ferrous head 28. Then the body 10 with its carried magnet 12 may be applied against the tape 26 to hold the body 10 at the position desired.

Some players desire to position the face 23 at an angle varying from ninety degrees from the line through the golf ball and the cup, for example, and thus it is desirable to vary the angle of the axis through the tube 16 with the face 23, changing the angularity of the lines 18 and 19 accordingly.

To provide for this change in angularity, the body may

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be made to be revoluble about the magnet 12 in approximately horizontal directions. To do so, for example, the horizontal dimensions of the body cavity 11 may be greater than like dimensions of the magnet where a rectangular magnet 12 is employed. Then the body 10 may be shifted about the magnet portion within the cavity to bring the tube 16 to the desired horizontal angle. By providing a thumbscrew 29 on the pin 15, the body 10 may be compressively clamped in a stationary position about the magnet 12 so as to maintain that angle.

While I have herein shown and described my invention in the one particular form, it is obvious that structural changes may be employed, particularly in regard to the nature of construction of the magnet, and the mounting of the tube 16 on the magnet carrying body, and I therefore do not desire to be limited to that precise form, beyond the limitations which may be imposed by the following claims.

I claim:

1. A coordinating indicator detachably mounted on the rear side of a golf club head and confined substantially within the projected area of said head, comprising a body;

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a magnet carried by said body and having a pole portion extending outwardly beyond one side thereof; a shallow U-shaped tube carried by and across the opposing side of said body, sloping upwardly and outwardly therefrom toward closed end portions; a member carried within said tube and shiftable therealong; and a pair of direction indicator lines extending centrally across the top of said tube, spaced apart a distance substantially equal to the diameter of said shiftable member; said tube spaced a distance behind said club head and retained thereon solely by said magnet; said magnet shiftable to selected positions along the rear side of said club head.

2. The structure of claim 1 in which said body is horizontally rockable about said magnet; and means are provided fixing said body at rocked positions.

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