

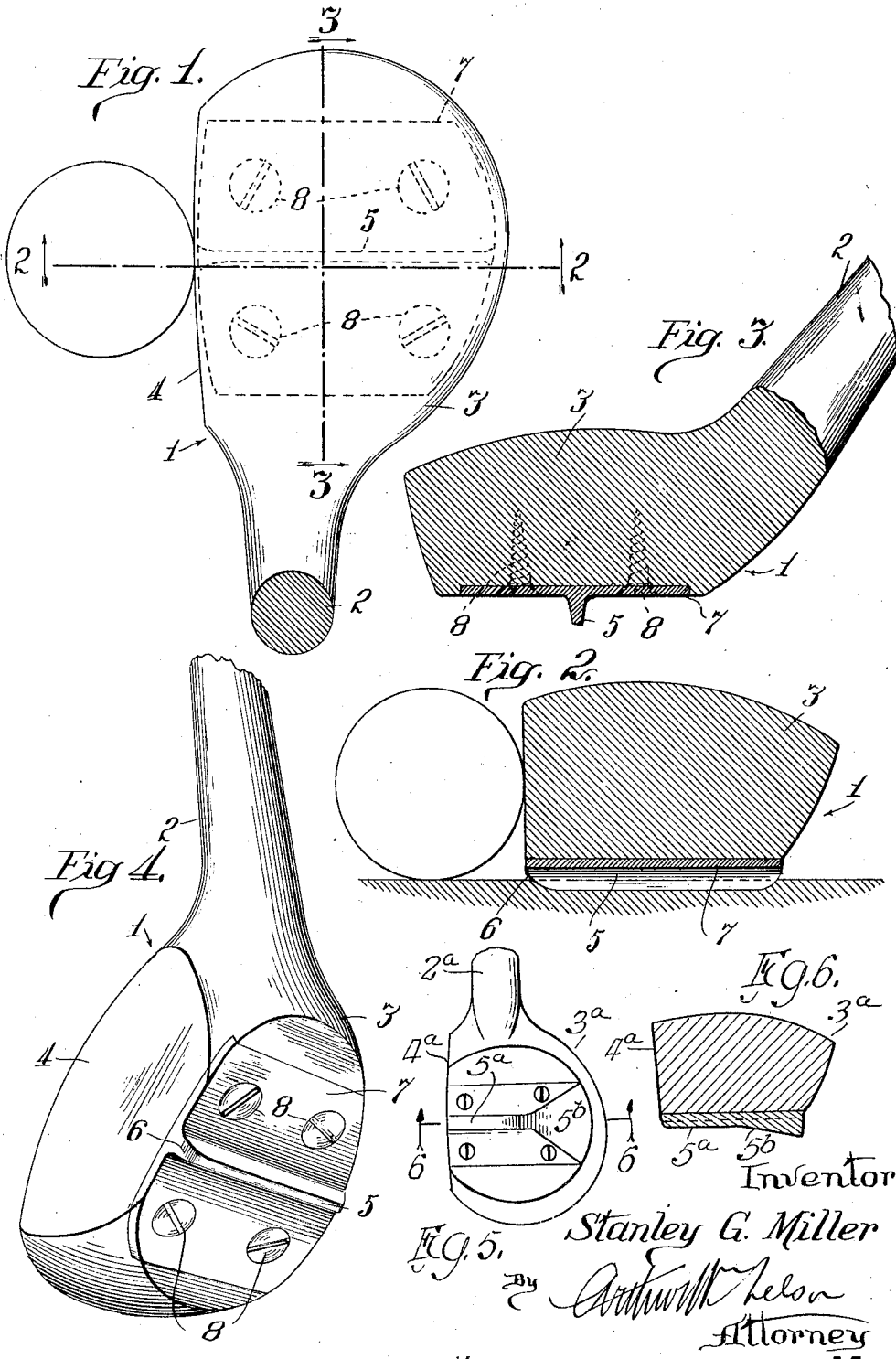
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GOLF CLUB

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UNITED STATES PATENT OFFICE.

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GOLF CLUB.

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This invention relates to improvements in golf clubs and it consists in the matter hereinafter described and more particularly pointed out in the appended claims.

5 The primary object of the invention is to provide an improved club for use in "driving" a golf ball and which shall not only increase the driving distance but shall also eliminate or reduce to a minimum the tendency to "slice" or "hook" the driven ball.

10 Still another object of the invention is to provide a club for driving a golf ball which shall have means on the bottom face or sole of its head to engage the turf during a part of the swing of the club, so that said head will be guided in the direction of intended flight of the ball and will follow the same a short distance with the result that the ball is driven true and straight and has imparted thereto a spin that increases the rolling action thereof upon landing from its flight.

15 These objects of the invention as well as others, together with the many advantages thereof, will more fully appear as I proceed with my specification.

20 In the drawing:

Fig. 1 is a top plan view of the head end of a golf club embodying the preferred form of my invention and positioned adjacent the ball to be driven.

25 Fig. 2 is a vertical cross section through the same as taken on the line 2—2 of Fig. 1.

Fig. 3 is a vertical section through the club as taken on the line 3—3 of Fig. 1.

30 Fig. 4 is a perspective view of the head end of a golf club embodying my invention, the sole thereof being exposed to view.

Fig. 5 is a bottom face view of a modified form of my invention and

35 Fig. 6 is a sectional view substantially along the line 6—6 of Fig. 5.

The invention is herein illustrated and described as being embodied in that type of club known as a "driver" but as will be apparent it is also applicable for use in other driving clubs such as "brassies" and "spoons" and the like, so that the same is to be considered as illustrative of the invention only and not by way of limitation.

40 Referring now in detail to that embodiment of the invention illustrated in Figs. 1 to 4 of the accompanying drawings, 1 indicates as a whole that type of golf club known as a driver, and which includes the usual shaft 2 and head 3 having a flat vertical driving face 4. On the bottom surface

of the club I provide a rib or keel 5 which extends in a plane at a right angle to said face. This rib is substantially narrow in width and is of a depth which while imparting the desired guiding influence to the head by reason of its engagement with the turf, is not so deep as to impede the movement of the club unduly. That end of said rib adjacent the driving face of the head is beveled or rounded off as at 6 so as to avoid an abrupt end which would tend to brake the action of the head in the swing of the club and which of course would materially reduce the drive. This rib or keel may be formed as an integral part of the head but I find another convenient way is to form said rib on a metallic plate 7 which is fixed to the bottom face of the head as by means of the screws 8—8.

45 In making a drive with my improved club, and with the ball resting upon the turf, the ordinary driving swing is such as to bring the driving or impact face into contact with the ball. At about the time the head engages the turf in line with the ball, the rib or keel enters the turf and guides the head in the plane of the intended drive or flight of the ball so that the head follows the ball a short distance along the line. As a result of this guiding action along the line no part of the driving force is lost with respect to the ball. The ball moves in a remarkably straight line of flight without hook or slice.

50 It is apparent that the rib or keel guides the club during the critical part of the swing in the direction of intended flight, so that the disastrous effects of undesired slicing and hooking are avoided and a long straight drive secured.

55 Another very important advantage of my golf club is that it increases the length of the drive by imparting an overspin to the ball. The reason for this I am convinced is that as the center rib or keel engages the turf it causes the front face of the club to tilt slightly so that the ball is hit somewhat above center or at least sufficiently high to impart overspin. While this rib construction is effective to tilt the driving face of the club to the end that overspin may be imparted to the ball it also acts to limit the movement of the club into the turf so that undue gouging of the turf is prevented. The prevention of undue gouging also avoids slowing up the speed of the club head dur-

ing the impact period. Hence, my club induces directional accuracy and imparts overspin.

In the modification shown in Figs. 5 and 6, 2^a is the shaft and 3^a the head and 4^a the driving face. On the bottom face or sole of the club head I provide a rib, keel or projection which in this instance is composed of two portions 5^a and 5^b. As viewed in bottom plan the portion 5^a is relatively narrow while the portion 5^b flares toward the rear, i. e., is wider toward the rear than it is at the front. As viewed in vertical section the bottom of the portion 5^a is below, but substantially parallel to the sole or bottom face of the club whereas the portion 5^b is not of uniform thickness but becomes progressively thicker toward the rear.

In this construction the front or relatively narrow portion of the projection first engages the turf as the swing progresses the rearward flaring portion gradually is brought into contact with the turf. As a result the club is directed definitely along the line of intended flight. The enlarged rear portion of the projection offers sufficient resistance to movement of the club across the line of intended flight to prevent hooking and slicing. At the same time this thickened rear face is effective to increase the cant or angularity of the impact face of the club so that greater overspin is imparted to the ball. Hence the construction induces directional accuracy and increases the length of the drive relative to the speed of the club head at the time of impact.

While in describing my invention I have referred to the form and arrangement of the parts thereof in detail, I do not wish to be

limited thereto except as may be pointed out in the appended claims.

I claim as my invention:

1. A driver and the like embodying therein a driving head having a substantially flat sole and a turf engaging portion projecting from the bottom thereof, which turf engaging portion is centrally disposed on the head and is arranged at approximately a right angle to the face of the head and is of a greater depth at the rear than at the front.

2. A driver and the like embodying therein a driving head having a substantially flat sole and a turf engaging portion projecting from the bottom thereof, which turf engaging portion is centrally disposed on the head and is arranged at approximately a right angle to the face of the head and is wider at the rear than at the front.

3. A driver and the like embodying therein a driving head having a substantially flat sole and a turf engaging portion projecting from the bottom thereof, which turf engaging portion is centrally disposed on the head and is arranged at approximately a right angle to the face of the head and is of a greater depth and greater width at the rear than at the front.

4. A driver and the like embodying therein a driving head having a substantially flat sole and a turf engaging portion projecting from the bottom thereof, which turf engaging portion is centrally disposed on the head and is arranged at approximately a right angle to the face of the head and is tapered downwardly and rearwardly.

In testimony whereof, I have hereunto set my hand, this 19th day of July, 1927.

STANLEY G. MILLER.