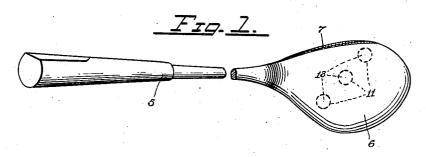
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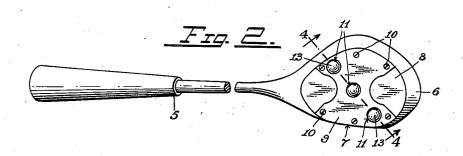
## J. M. RUSSELL

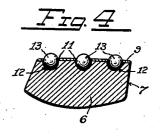
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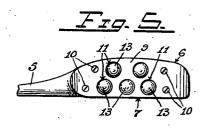
GOLF CLUB

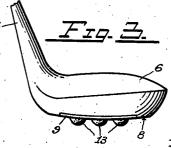
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## PATENT OFFICE UNITED STATES

2,255,332

## GOLF CLUB

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4 Claims. (Cl. 273-77)

My invention relates to golf clubs, and certain objects of the invention are to provide a golf club having a plurality of balls revolubly mounted in the lower face of its head and which are arranged to engage the ground when striking a golf ball thereby enabling the player to more easily and naturally follow through with a correct outwardly curved stroke.

Further objects are to arrange the balls in diagonal and spaced apart alignment across the bottom of the golf club head in such manner as to ensure their engagement with the surface of the ground thereby enabling the player to make a more powerful and natural stroke without marring the turf.

Still further objects are to provide ball bearing means for the bottom face of the golf club head whereby natural and universal engagement of the balls with the surface of the ground is accomplished and the tendency to strike the 20 ground too forcefully is eliminated.

While I am aware that attempts have heretofore been made to accomplish the foregoing objects by providing cylindrical roller bearings for golf clubs, such bearings have failed for the rea- 25 son that their axes of rotation are fixed thus preventing universal or natural ground engagement by limiting such engagement to a single fixed direction and thus defeating their own purpose.

In the drawing:

Figure 1 is a top plan view of a golf club showing the relative arrangement of the balls in dotted circles;

Fig. 2 is a bottom plan view of the same;

Fig. 3 is a fragmentary view in side elevation of a golf club head;

Fig. 4 is a view in vertical section taken substantially on a broken line 4-4 of Fig. 3; and Fig. 5 is a bottom plan view showing a modi- 40

fied arrangement of balls.

Referring in detail to the drawing wherein like references indicate like parts in the several views, the golf club may be of any usual or customary type, such as a brassey, putter, or other 45 form of golf stick consisting of a handle 5 and a head 6 having the usual striking face 7. The bottom face 8 of the head 6 is provided with a metal plate 9 fixed thereto by screws or other fastenings 10 in flush relation with the said bottom face of the head.

The metal plate 9 has a plurality of round holes if through same. These holes are preferably, though not necessarily, aligned in diagonal and equal spaced apart relation across the bot- 55

tom face 8 of the head 6 and the metal plate 9. To be more specific, their alignment slants inwardly toward the handle 5 at an angle of substantially forty-five degrees with respect to the striking face 7 of the club head as most clearly shown in Fig. 2 of the drawing.

As shown in Fig. 4 of the drawing, each of the holes ( extends into the wooden head 6 to form round bottom recesses 12. A metal ball 13 is placed in each of these recesses before the plate 9 is fastened in place. The diameter of the balls is less than that of the recesses 12 but greater than that of the holes II so that the balls are thereby retained in place and may revolve freely 15 in any direction upon tangential engagement with the ground when making a stroke as will be understood.

The bottom face 8 of the club head 6 is usually curved or warped outward to a slight extent in most golf sticks, and the metal plate 9 is likewise curved or warped. The idea in providing a plurality of spaced apart holes with balls therein is that one or more of the balls will contact the surface of the ground when making a ground engaging stroke. The idea in aligning these balls in inwardly slanting relation from the striking face 7 toward the handle 5 is that they will thereby have a tendency to assist, rather than retard, the naturally and outwardly curved direction of the stroke. This will enable the player to follow through naturally and with greater ease for the reason that the ball nearest the striking face 7 engages the ground first and is followed in sequence by the others. 35

I claim:

1. The combination with a golf club comprising a head having a bottom face, of a plurality of balls revolubly mounted in said bottom face and projecting outwardly therefrom, and said balls disposed in spaced apart relation diagonally across said bottom face whereby they will more readily engage the ground when making a stroke with the club.

2. The combination with a golf club comprising a handle and a head having a striking and a bottom face, of a plurality of balls revolubly mounted in said bottom face and projecting exteriorly thereof, said balls disposed in spaced 50 apart relation diagonally across said bottom face whereby they will more readily engage the ground when making a stroke with the club, and said balls aligned in an inwardly slanting direction toward the handle to form an acute angle with the striking face whereby they will assist in making a natural outwardly curved stroke.

3. The combination with a golf club comprising a head having a bottom face, of a plate fixed to said face and having a plurality of holes therethrough, said holes extending into said head to form recesses therein, a ball revolubly mounted in each of said recesses and projecting through said holes exteriorly of the plate, and the edge portions of said holes adapted to retain the balls revolubly in said recesses.

4. The combination with a golf club comprising a handle and a head having a striking and a hottom face, of a metal plate fixed to said bot-

tom face and having a plurality of round holes therethrough, said holes extending into said head to form round bottom recesses therein, said holes disposed in spaced apart relation diagonally across said bottom face and plate and aligned in an inwardly slanting direction toward the handle to form an acute angle with the striking face, a ball revolubly mounted in each of said recesses and projecting exteriorly of the plate through the holes therein, and the edge portions of said holes adapted to retain the balls revolubly in said recesses.

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