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G. C. WORTHINGTON

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GOLF CLUB HEAD

Filed June 8, 1925

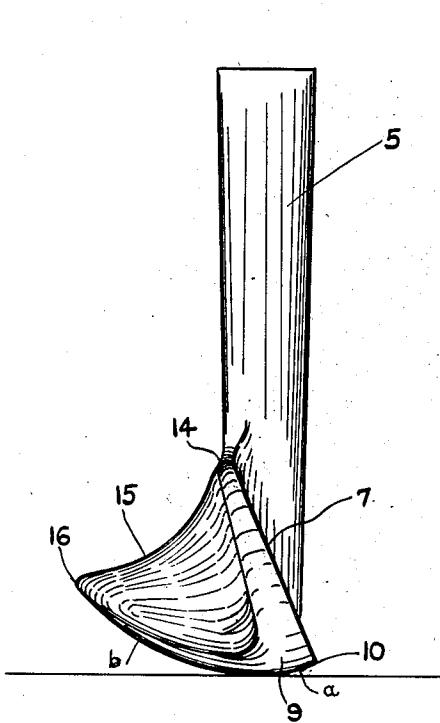


Fig. 1

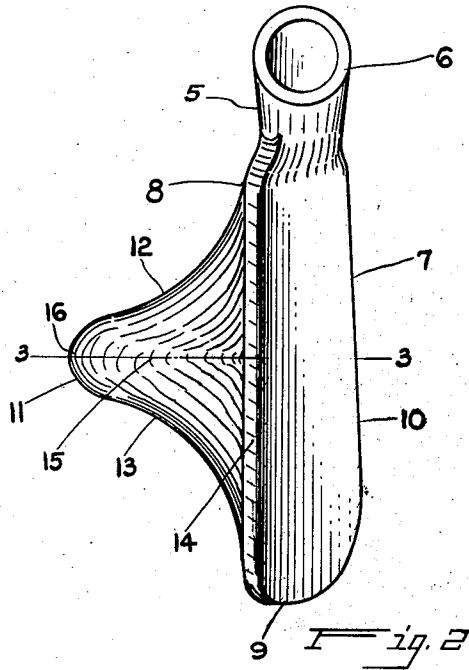


Fig. 2

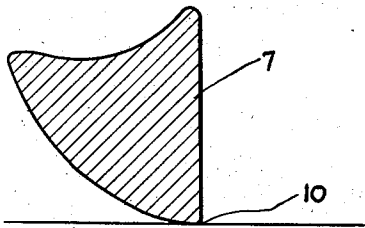


Fig. 3

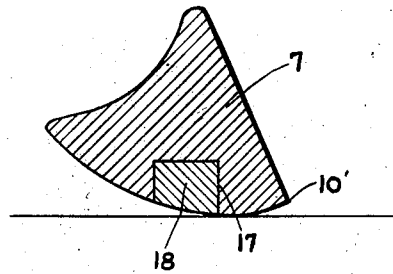


Fig. 4

INVENTOR  
George C. Worthington  
BY  
Richey, Slough & Watts  
ATTORNEYS.

# UNITED STATES PATENT OFFICE.

GEORGE C. WORTHINGTON, OF ELYRIA, OHIO.

## GOLF-CLUB HEAD.

Application filed June 8, 1925. Serial No. 35,531.

My invention is an improvement in golf club heads, and more particularly relates to metal heads for lofting and driving purposes. I find there is a tendency on the part of most beginners in the game of golf to swing a club slightly high or too low when making an "iron" shot. In the latter case, the sole of the club head will strike the ground considerably to the rear of the ball and will result in digging into the sod, thereby not only being destructive to the course, but also dubbing the shot and causing the player to lose confidence in his game. To overcome this tendency to "dig in" I have provided a club head of novel design and structure which will effectively bring about the result desired.

An important object of my invention is to provide a golf club head preferably of the "iron" type which will overcome the disadvantages above set forth.

Another object of my invention is to provide a golf club head having means whereby a proper balancing of the head is provided during the entire stroke and particularly that part of the stroke immediately before the club head comes into contact with the ball.

Another object of my invention is to provide a golf club head of the driving or lofting types which will have a true balance and which will effect a more efficient swing of the club and contact with a golf ball, resulting in "shots" of greater distance and accuracy.

Another object of my invention is to provide a golf club head which may be cheaply manufactured and which is extremely simple of construction.

Other objects and advantages of my invention will become apparent from the following description of the same and the drawings which illustrate an embodiment of my invention.

In the drawings forming a part of this specification and in which like numerals are used to designate like parts throughout,—

Fig. 1 is an end elevation of my improved club head showing the relative positions of the extension and sole portion of the club head;

Fig. 2 is a top plan view of the club head;

Fig. 3 is a section taken on line 3—3 of Fig. 2 showing the striking face in a substantially vertical plane and the sole portion of the head in contact with the sod, and

Fig. 4 is a section of a modification of my invention showing a means of weighting and balancing the club.

In the drawings, the shank 5 is hollowed at 6 to receive a club shaft (not shown). The lower end of the shank carries the head 7, and while I have illustrated a head representing a "mid-iron" the invention may be applied to the other types of clubs now in use.

The club head is of metal preferably a light metal such as aluminum although I may use any other metal, and comprises a heel portion 8, a toe portion 9, and a sole 10, while on the rear face of the head I have formed a tongue or extension member 11 integral therewith and extending rearwardly of the head. This extension consists of a body portion 11, the under side of which is convexed and curved gradually rearwardly and upwardly from the sole forming a continuation of the sole member 10. It will be noted in this connection that the grounding face "a" of the head striking portion extends rearwardly and downwardly from the bottom of the striking face 7 forming a depressed forward portion of the bottom face with the under upwardly extending face "b" of the tongue to the rear of the bottom edge of the striking face. It will also be seen that the rear head portion of the grounding face is rounded progressively more and more acutely as the front of said grounding face is approached.

The sides 12 and 13 of the extension converge rearwardly from the sole 10 and meet at a distance approximately  $1\frac{1}{2}$  inches to the rear of the upper edge 14 of the head on a line approximately midway between the heel and toe. A web 15 is formed on the extension and extends from the central portion of the upper edge 14 of the head downwardly to and gradually merging with the tip 16 of the extension. Thus the web will not only serve to more centrally locate the center of gravity of the club head and add weight to the head, but will act as a brace between the head rear face and the extension.

As stated above, one of the objects of my invention is to eliminate the tendency of a beginner to "dig" into the sod by swinging too low and contacting with the sod too far to the rear of the ball. With the present invention when the club head is brought down in the swing, the toe 9 will engage the

sod, but will be prevented from digging in by virtue of the depressed forward portion of the bottom face of the extension 11 which is to the rear of the bottom edge of the striking face and contacts with the sod during the progress of the swing, and tends to "lift" the club head out of the sod. As the rearward convexed surface of the extension engages the surface of the sod, the sole of the club head will be forced out of engagement with the sod and will pass over the surface of the sod without material damage thereto.

In Fig. 4, I have illustrated a second form of my invention in which the club head is of metal, and consists of heel and toe portions 8 and 9, respectively, and a sole portion 10' which are similar to those portions shown in Figs. 1 and 2.

An extension or tongue 11 is also formed on the head and comprises structure as shown in Figs. 1 and 2 at 11, 12, 13, 15 and 16.

The head 7, Fig. 4, is formed of a light metal, preferably of aluminum, although any other metal may be used. A socket is formed in the base of the tongue as at 17 and is adapted to receive a plug 18; or the like, of lead or other heavy metal which has its lower surface flush with the surrounding edges of the head.

By using a weighting plug the correct balance may be given the club which will result in more efficient use of the club and making shots of greater distances.

It is to be understood that various changes may be made in the construction of my invention without departing from the spirit of my invention or the scope of the subjoined claims.

I claim:—

1. In a golf club, a head therefor, a tongue on said head, said tongue projecting rearwardly from the face of the club head, and a web formed integral with the club head and the tongue and connecting the same, said web curving gradually downwardly from the rear face of the club head toward the rear end of the tongue.

2. In a golf club, a head therefor having a rearwardly projecting tongue and a web connecting said head and said tongue, said tongue extending gradually rearwardly upwardly from the striking face of said head.

3. In a golf club, a head therefor, a tongue on said head, said tongue projecting rearwardly from the striking face of the club head and at an angle thereto, and a web connecting said head and said tongue.

4. In a golf club, a head therefor, a tongue on said head, said tongue projecting rearwardly from the striking face of the club head and at an angle thereto, and a web con-

necting said head and said tongue, said head, tongue and web portions being formed as an integral unit.

5. In a golf club, a head therefor, a tongue on said head, said tongue projecting rearwardly from the striking face of the club head and at an angle thereto, and a web connecting said head and said tongue, said head, tongue and web portions being formed of a relatively light metal and as an integral unit.

6. In a golf club, a head therefor, a tongue on said head, said tongue projecting rearwardly from the striking face of the club head, the lower surface of said tongue comprising a rear portion curving gradually upwardly from the sole of the club head, and a web formed integrally with the club head and the tongue and connecting the same.

7. In a golf club, a head therefor, a rearwardly projecting tongue carried by the head, the under surface of said tongue being convex, and a web connecting said club head and said tongue.

8. In a golf club, a head therefor, a tongue carried by the head, the ground engaging surface of said tongue being curved rearwardly from the striking face of the club head, and a web formed integrally with the club head and the tongue for connecting the same.

9. In a golf club, a head therefor, having an inclined striking face, a rearwardly extending tongue for the head, having a bottom portion with a convex grounding face and joining a continuation of the head grounding face, said grounding faces forming a depressed forward portion thereon to the rear of the bottom edge of the striking face, and a web formed integrally with the head on the tongue and connecting the same.

10. In a golf club, a head therefor, having a rearwardly projecting tongue, and a web connecting said head and said tongue, the under surfaces of said head and said tongue forming a continuously curved grounding surface, the highest point in the arc defined by the said continuously curved surface being at the point to the rear of the striking face of the club head.

11. A golf club, a head therefor, said head having a rearwardly projecting tongue, and a web connecting said head and said tongue, the grounding surface of said tongue being curved gradually rearwardly of the striking face of said head, the highest point of the arc defined by the said curved surface being to the rear of the striking face of the head when the club head is in correct position for striking a ball.

In testimony whereof I hereunto affix my signature this 25 day of May, 1925.

GEORGE C. WORTHINGTON.