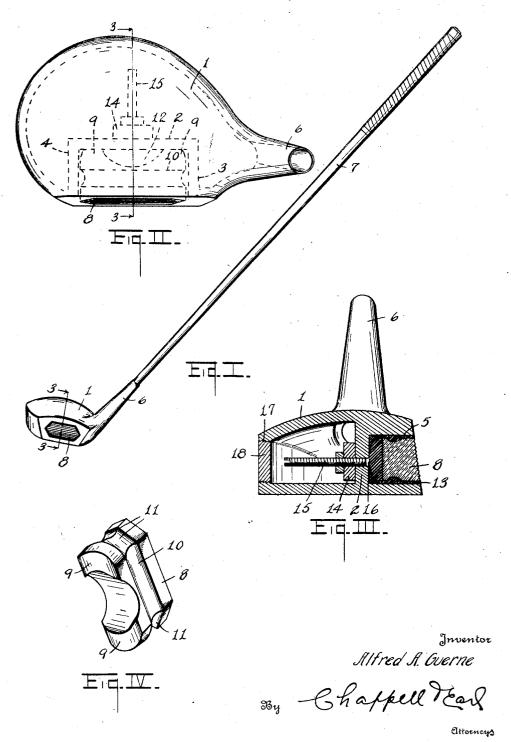
A. A. GUERNE

GOLF CLUB HEAD

Filed March 23, 1925



## UNITED STATES PATENT OFFICE.

## ALFRED A. GUERNE, OF KALAMAZOO, MICHIGAN.

GOLF-CLUB HEAD,

Application filed March 23, 1925. Serial No. 17,589.

To all whom it may concern:

Be it known that I, Alfred A. Guerne, a citizen of the United States, residing at the city and county of Kalamazoo, State of Michigan, have invented certain new and useful Improvements in Gulf-Club Heads, of which the following is a specification.

This invention relates to improvements in

golf club heads.

The main objects of this invention are:

First, to provide an improved golf club head which is mainly formed of metal.

Second, to provide in a golf club head an improved striking or impact face.

Objects pertaining to details and economies of my invention will definitely appear from the detailed description to follow.

I accomplish the objects of my invention by the devices and means described in the 20 following specification. The invention is clearly defined and pointed out in the claims.

A structure embodying the features of my invention is clearly illustrated in the accompanying drawing forming a part of this application, in which:

Fig. I is a front elevation of a golf club embodying the features of my invention.

Fig. II is a plan view of a golf club head

embodying my invention.

Fig. III is a transverse section on a line corresponding to line 3-3 of Figs. I and II. Fig. IV is a rear perspective view of the

impact member removed from the golf club

In the drawing similar numerals of reference indicate similar parts in all of the

My improved golf club head comprises an integral hollow metallic body 1 having integral partitions 2, 3 and 4 providing an impact member chamber 5. The head has an integral shank 6 for the shaft 7.

The impact member 8 is preferably formed of porcelain and has rearwardly projecting portions 9 at its ends seated directly against the wall 2 of the impact member chamber. The impact block 8 has side grooves 10 and end grooves 11, the projections 9 forming a recess 12 in the rear side <sup>50</sup> of the block.

The impact member is set in vulcanized rubber 13 which embraces the top, bottom and ends thereof and fills the grooves 5, rubber of suitable composition being arranged upon the block, the block inserted and then rubber which surrounds the sides and ends 110

the rubber vulcanized with the block in position, thus permanently securing the block in the chamber with its curved faces 9 in direct engagement with the walls of the chamber. Its sides and ends, however, are 60 held in spaced relation to the walls by the vulcanized rubber or other suitable plastic material which is substantially non-elastic.

By curving the faces of the projections 9 the impact member can be accurately seated 65 and its contact with the inner wall of the chamber is secured, notwithstanding such irregularities as might occur in castings.

The head may be weighted as desired, a weight 14 being shown as secured against 70 the wall 2 by means of the screw 15 which is threaded into a hole 16 provided in the

The head is provided with an opening 17 in its rear wall which is closed by the clo- 75 sure plug 18 threaded into the opening.

By thus arranging the counterbalancing weight it is properly positioned relative to the shank to secure the desired counterbalancing effect or result.

My improvements enable the economical production of golf clubs of a very superior quality. While I prefer to use porcelain the impact member may be formed of other materials with quite satisfactory results.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is:

1. A golf club head comprising a hollow integral metallic body having integral par-90 tition walls providing an impact member chamber, and an impact member of porcelain having rearwardly projecting portions at the ends thereof with curved faces seated directly upon the inner wall of said cham-95 ber, said impact member having external grooves in its sides and ends and being set in vulcanized rubber which surrounds the sides and ends thereof filling said grooves and supporting the impact member with 100 its sides and ends out of contact with the walls of the chamber.

2. A golf club head comprising a hollow metallic body having integral partition walls providing an impact member chamber, and 105 an impact member of porcelain seated directly upon the inner wall of said chamber, said impact member having external grooves in its sides and ends and being set in vulcanized

the impact member with its sides and ends out of contact with the walls of the chamber.

3. A golf club comprising a hollow me-5 tallic body having integral partition walls providing an impact member chamber, and an impact member of porcelain seated directly upon the inner wall of said chamber, said impact member being set in vulcanized 10 rubber which surrounds the sides and ends its sides and ends out of contact with the

walls of the chamber.

4. A golf club head comprising a hollow 15 metallic body having integral partition walls providing an impact member chamber, an impact member of non-resilient material seated directly upon the inner wall of said chamber and set in a plastic which surrounds 20 the sides and ends thereof supporting its sides and ends out of contact with the walls of the chamber, a weight, and an attaching screw therefor threaded into the inner wall of said chamber, the rear wall of said body 25 having an opening alined with said screw and provided with a threaded closure plug.

5. A golf club head comprising a hollow metallic body having integral partition walls plastic, and a weight clamped upon the inproviding an impact member chamber, an impact member of non-resilient material seated directly upon the inner wall of said chamber, said impact member being set in vulcanized rubber which surrounds the sides and ends thereof and supports it with its 33 sides and ends out of contact with the walls a substantially non-resilient plastic. of the chamber, a weight, and means for clamping said weight upon the inner wall my hand and seal. of said impact member chamber.

6. A golf club head comprising a hollow

thereof filling said grooves and supporting metallic body having integral partition walls 40 providing an impact member chamber, and an impact member of non-resilient material seated directly upon the inner wall of said chamber, said impact member being set in vulcanized rubber which surrounds the sides 45 and ends thereof and supports it with its sides and ends out of contact with the walls of the chamber.

7. A golf club head comprising a hollow thereof supporting the impact member with metallic body having an impact member 50 chamber in the face thereof, and an impact member of porcelain seated upon the rear wall of said chamber, said impact member being set and retained in said chamber by a substantially non-resilient plastic.

8. A golf club head comprising a hollow metallic body having an impact member chamber in the face thereof, and an impact member of porcelain set and retained in said chamber by a substantially non-resilient 60

plastic.

9. A golf club head comprising a hollow metallic body having an impact member chamber in the face thereof, an impact member of porcelain set and retained in said 65 chamber by a substantially non-resilient ner wall of said impact member chamber.

10. A golf club head comprising a hollow metallic body having an integral partition 70 wall providing an impact member chamber, and an impact member of non-resilient material set and retained in said chamber by

In witness whereof I have hereunto set 75

ALFRED A. GUERNE. [L. s.]