

[54] **GOLF CLUB WOOD WITH FACE
PLATE INSERT**

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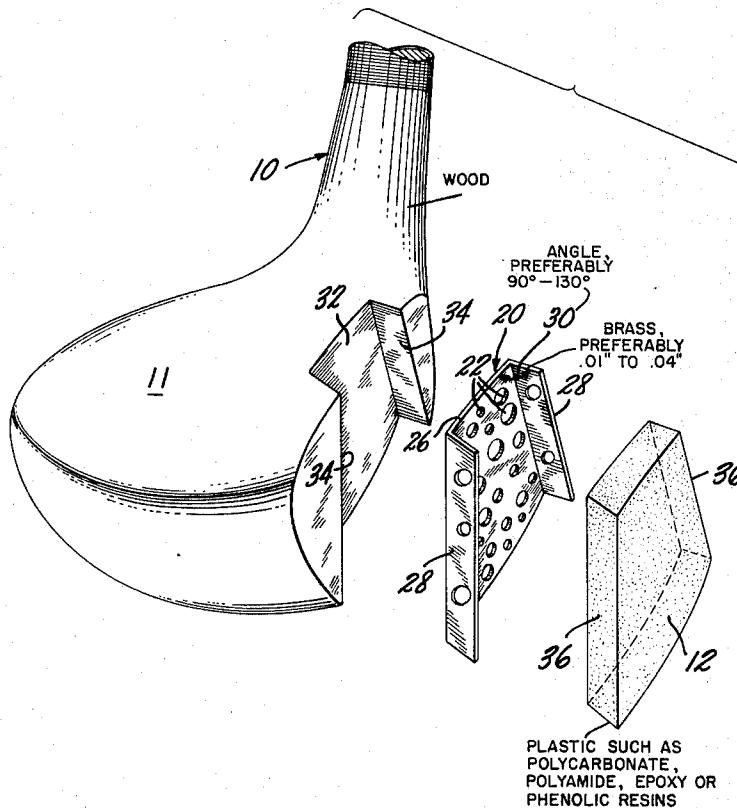
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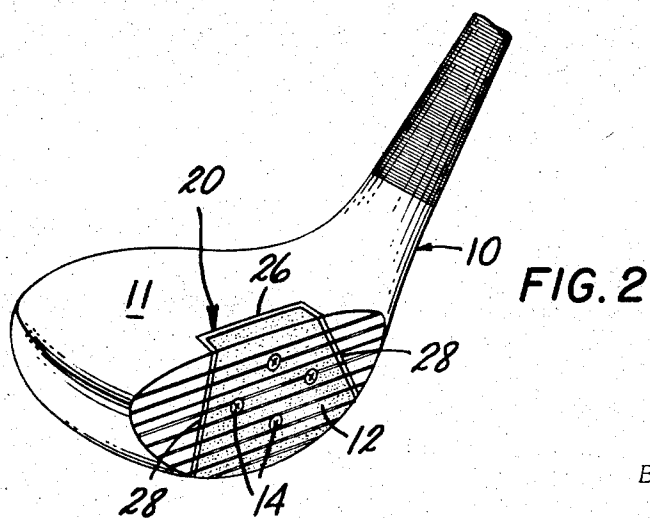
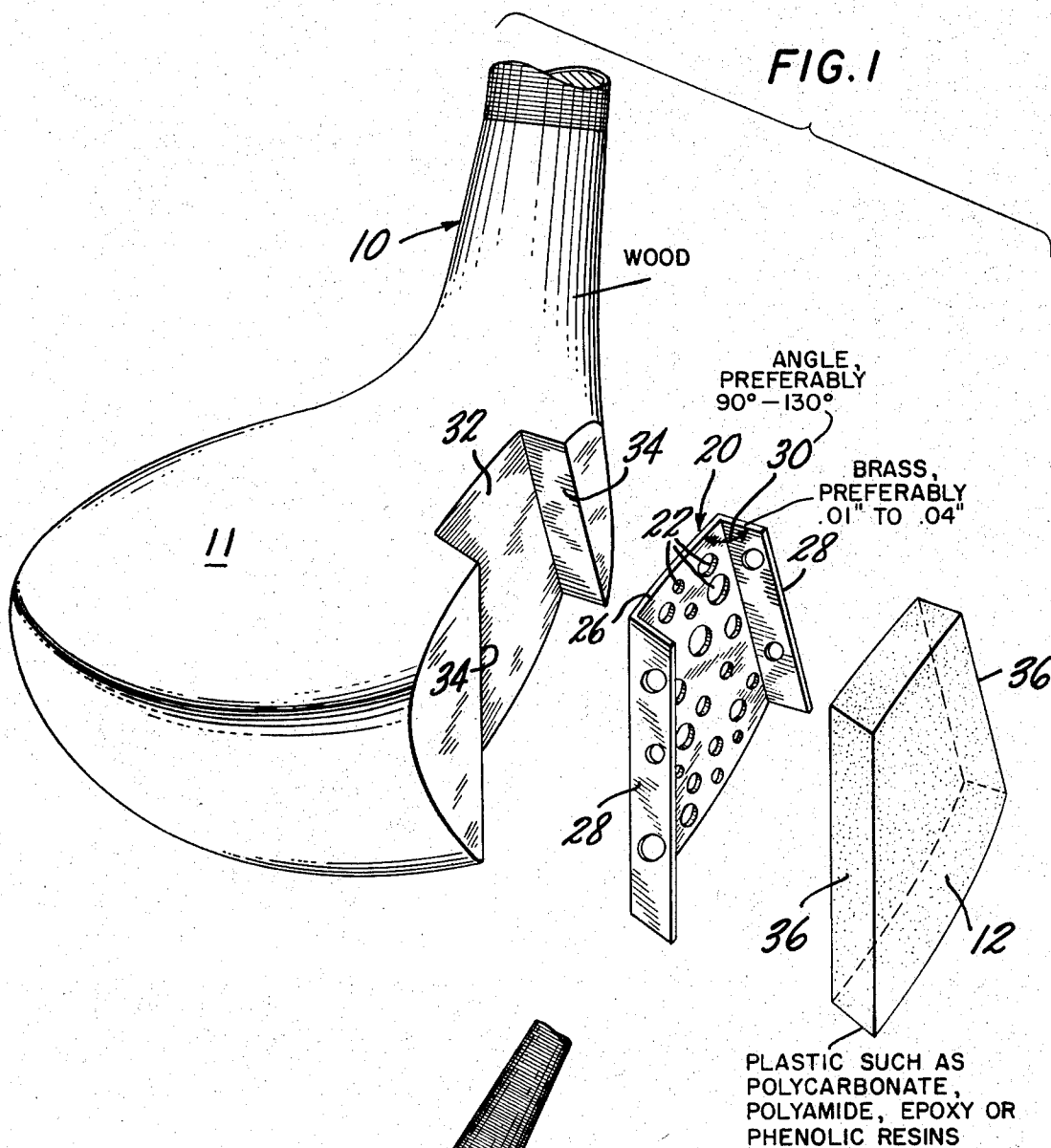
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ABSTRACT

A new and useful improvement in the construction of the head of a wooden golf club is disclosed. The improvement comprises a metallic insert with a plurality of holes therein between the club head block and a plastic face plate.

5 Claims, 2 Drawing Figures





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GOLF CLUB WOOD WITH FACE PLATE INSERT

In the game of golf there are primarily two sets of clubs which are used, referred to as "woods" and "irons". The present invention is an improvement in the club head of the "woods." "Woods" are used where it is desired to hit the ball a long distance and it is generally considered that "woods" give greater distance because of the weight of the club head and also because of the resiliency of a wooden club head as opposed to a steel club head such as is used in irons.

It is known that to add weight to the club head block increases its mass and thus increases the distance. It is customary to add the weight to the back of the club head. This, however, may tend to unbalance the club head and give the club poor "click" and "feel." "Click" and "feel" are well known in the golfing industry and are properties which define the way golf clubs handle when used under playing conditions. It has now been discovered that better "click" and "feel" can be given to the club by placing at least a portion of the weight added to the club head as a metal backing plate between the plastic face plate and club head block. It is thought that this better "feel" is due to a more even distribution of the weight added to the club. It has been found that excellent "click" and "feel" are obtained when the mass added is distributed throughout the area between the plastic face plate and the club head block and it is important that there be a plurality of holes in the metal plate. These holes are in addition to any holes used for screwing the plastic face plate to the club head block. It is believed that the better "click" and "feel" result from communication between the plastic face plate and the club head block through the holes in the metal plate. Such communication is not possible if the metal plate is solid or has holes only for screws.

It has also been found that to obtain the best "click" and "feel" there should be legs on the metal plate, said legs being situated between the sides of the plastic face plate and the club head block. These legs may also have one or more holes therein, if desired. This improvement in "click" and "feel" is most noticeable when a ball is hit on the extremities of the face plate since there is greater concentration of weight behind the ball at these points than would be if these legs on the metal plate were not present.

These and other advantages of the present invention may be more fully understood in reference to the following drawings in which like numbers are used for like parts, and in which:

FIG. 1 shows a club head block, the metal insert of the present invention and a plastic face plate in spaced relation before assembly; and

FIG. 2 is the assembled golf club head of FIG. 1.

As shown in FIG. 1 there is a standard golf club head 10 comprising a club head wood block 11 and plastic face plate 12. The plastic face plate is known in the art and is commonly made of such materials as polycarbonate, polyamide, epoxy or phenolic resins. Likewise, the club head block 11 is known in the art and is usually made of wood, with persimmon wood generally considered as best. The plastic face plate is usually affixed to the club head by screws 14 and also by adhesive between the face plate and the club head block.

The preferred embodiment of the metal insert 20 of the present invention has a plurality of holes 22 of varying sizes therein in addition to standard screw holes, if

present. The metal plate 26 as shown is essentially in the shape of an isosceles trapezoid with legs 28 on each of the non-parallel sides. The legs of the metal plate may also have holes therein as shown. The angle 30 between the legs 28 and the plate 26 may be varied as desired although we prefer an angle from about 90° to about 130°.

The metal insert is preferably made of brass. With a brass insert, a thickness of from about 0.01 to about 0.04 inches has been found to give excellent results. While a few holes 22 are satisfactory, best results are achieved when the holes 22 equal in total area at least 5 percent of the area of plate 26 and preferably the total area of the holes is at least 10 percent of the area of plate 26.

When assembled, the metal plate 26 fits snugly against wall 32 of club head block 11 and legs 28 fit snugly against walls 34 of the club head block. In like manner, the sides 36 of plastic face plate 12 fit snugly against legs 28 of the metal insert 20.

FIG. 2 shows the parts of FIG. 1 in assembled form. As shown therein the metal insert 20 is between the plastic face plate 12 and the club head block 11. In the embodiment shown, the edges of the metal plate 26 and of the legs 28 are visible. While this is a highly desirable form of construction from an aesthetic point of view, it will be understood that these edges may be covered with paint, plastic, or the like if desired. As shown in this embodiment, screws 14 are also used to hold the plastic face plate in place. It will be understood that either adhesive or screws may be used but the preferred form of construction includes both. Any conventional adhesive is suitable, such as epoxies, phenol formaldehydes, furfurals, etc. The empty holes 22 (FIG. 1) normally become filled with the adhesive used to attach the plastic face plate 12 to club head block 11. While the exact reason is not fully understood, it has been found that the improved "click" and "feel" due to the communication between the plastic insert and the club head block through the holes of the metal insert is still apparent even when the holes are not completely filled with adhesive.

It will be understood that it is intended to cover all changes and modifications of the preferred embodiments of the invention herein chosen for the purpose of illustration which do not constitute departures from the spirit and scope of the invention.

What is claimed is:

1. In a golf club comprising a wood club head block with a recess in the striking face thereof and a plastic face plate therein the improvement which comprises a brass insert having a thickness from about 0.01 inches to about 0.04 inches between said club head block recess and said plastic face plate, said brass insert having a continuous planar surface on the side which is against the club head block recess, the planar surface of said brass insert being in intimate contact with the club head block recess throughout the planar surface, said planar surface having a plurality of holes of varying size irregularly spaced and located throughout in addition to any screw holes for attaching the plastic face plate to the club head block.

2. The golf club of claim 1 wherein the total area of the plurality of holes in the brass insert is at least 5 percent of the area of said brass insert.

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3. The golf club of claim 1 wherein said brass insert has legs thereon between the sides of the face plate and the sides of the recess in the club head block.

4. The golf club of claim 3 wherein said legs have one or more holes therein.

5. The golf club of claim 1 wherein adhesive is used

as an attachment means for maintaining the plastic face plate, the brass insert, and the club head block in fixed position with respect to each other and wherein the plurality of holes in the said brass insert are completely filled with adhesive.

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