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(54) **IRON GOLF CLUB HEAD**

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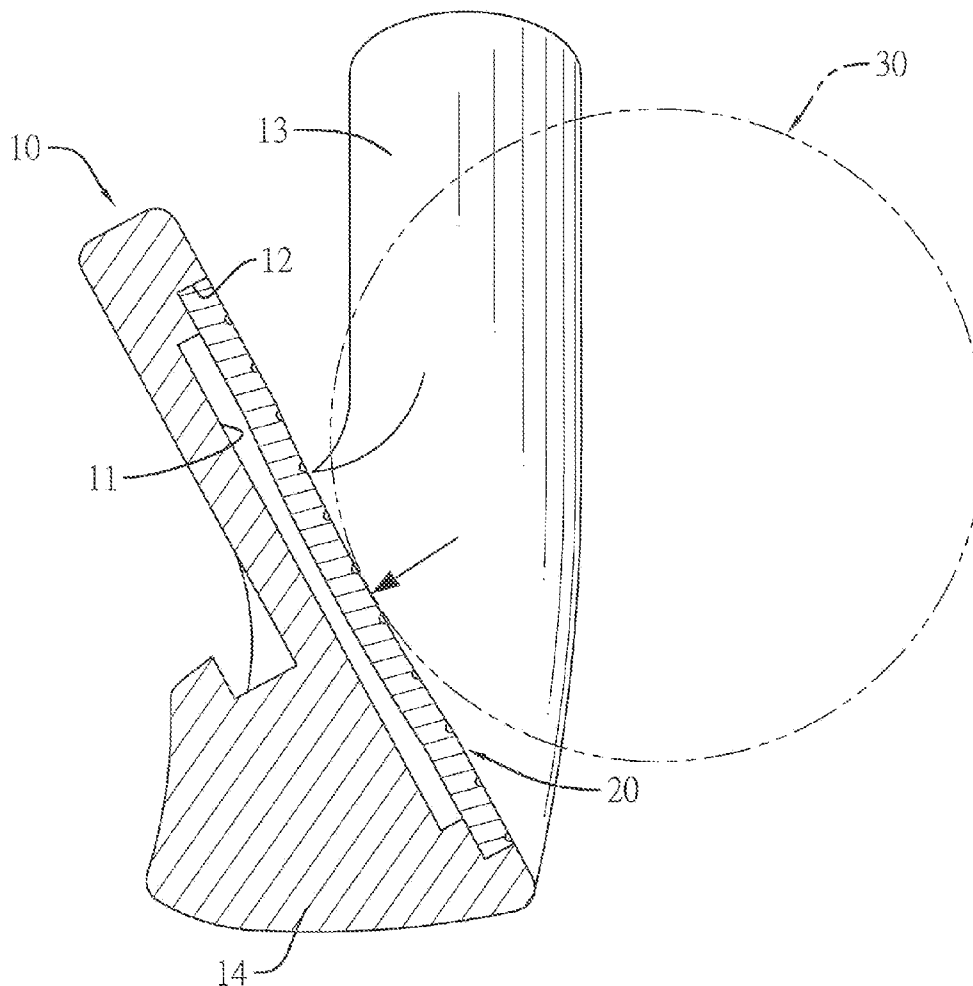
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(57)

ABSTRACT

An iron golf club head has a strike plate mounted securely in a front face of a head body. The head body has a sealed cavity formed in back of the strike plate so that only the peripheral edge of the strike plate is connected to the head body. When the iron golf club head strikes the golf ball, the strike plate deforms to independently bear the striking force and the cavity provides room to receive the deformation of the strike plate. Therefore, the rebounding effect is enhanced when the iron golf club head hits the golf ball.



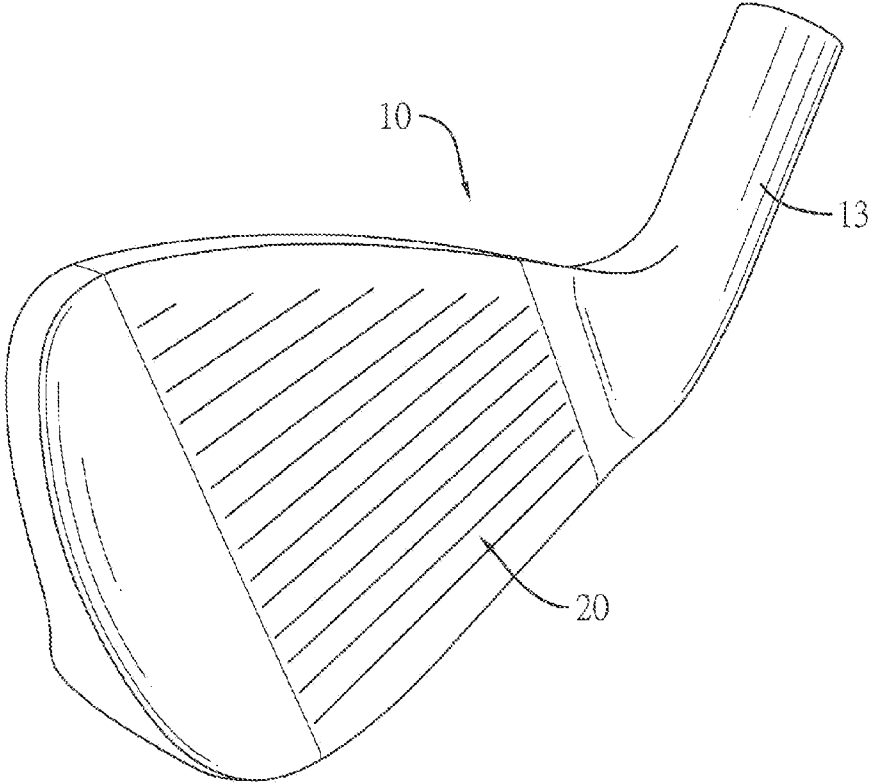


FIG.1

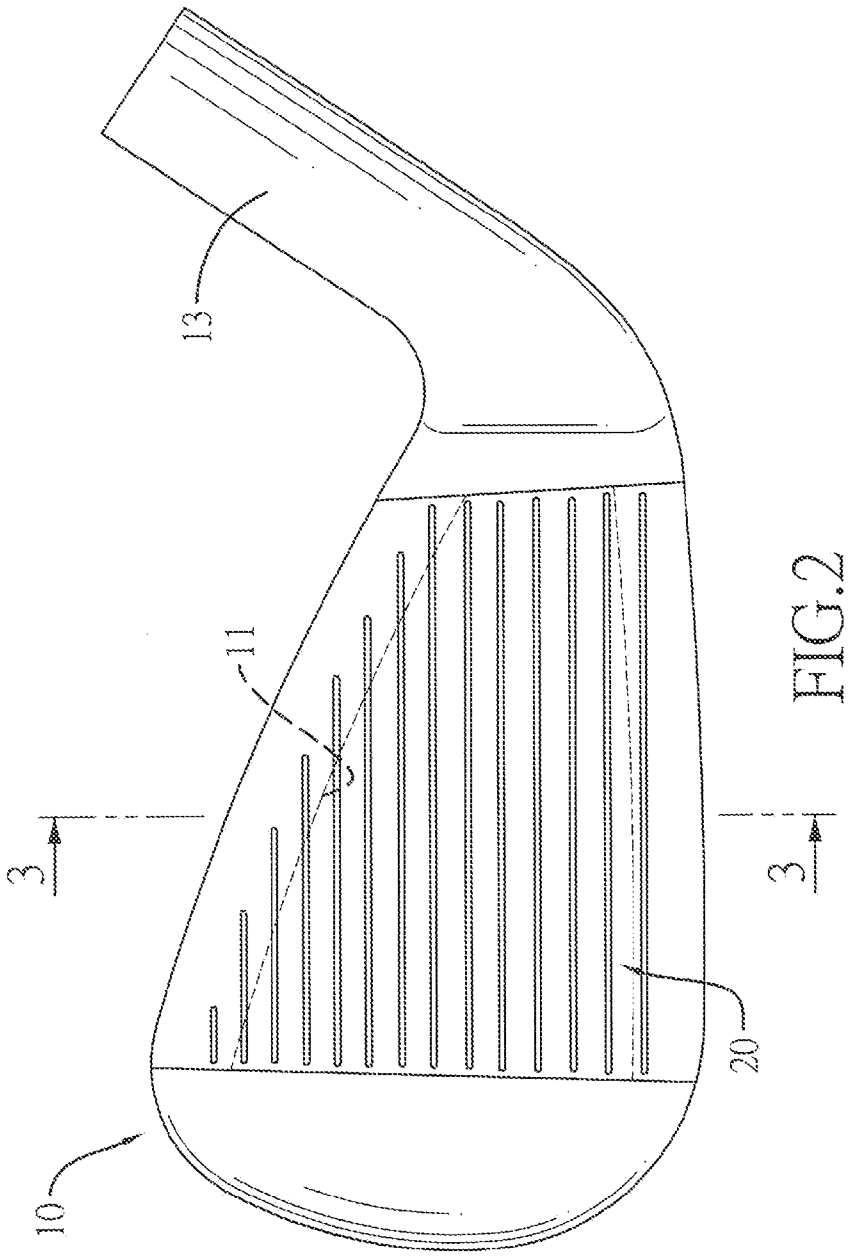


FIG. 2

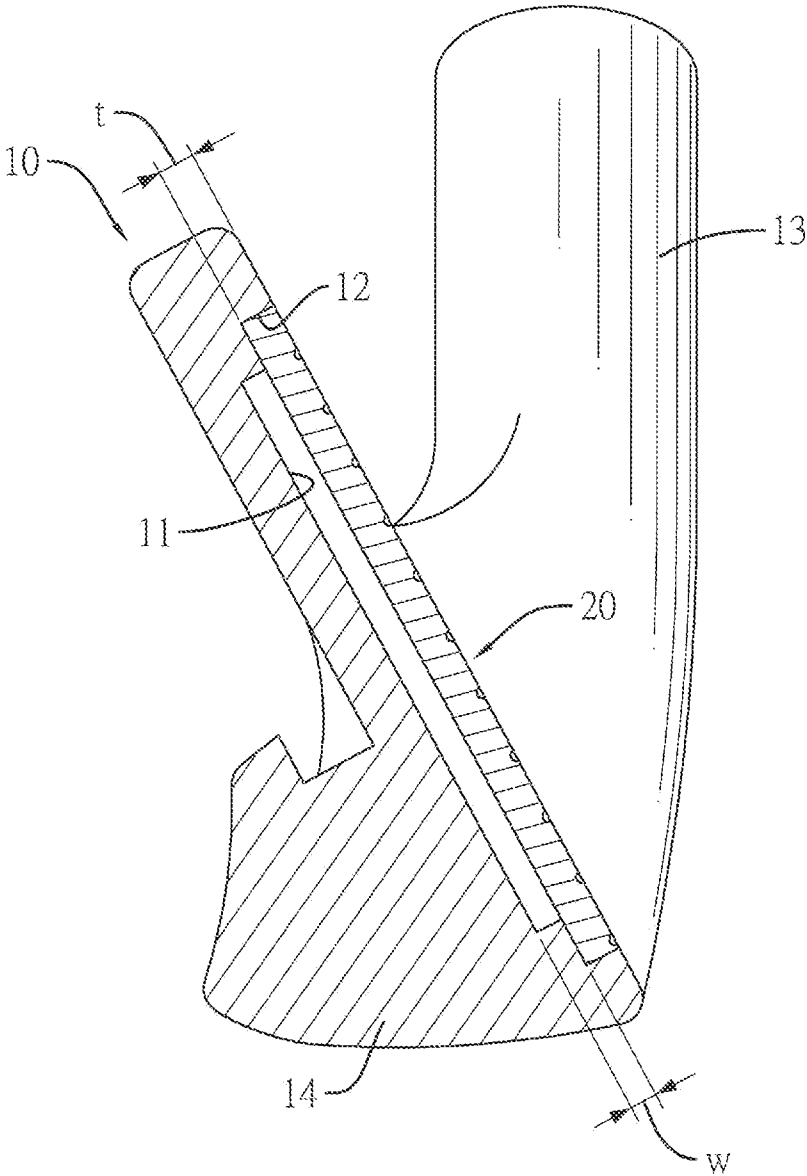


FIG.3

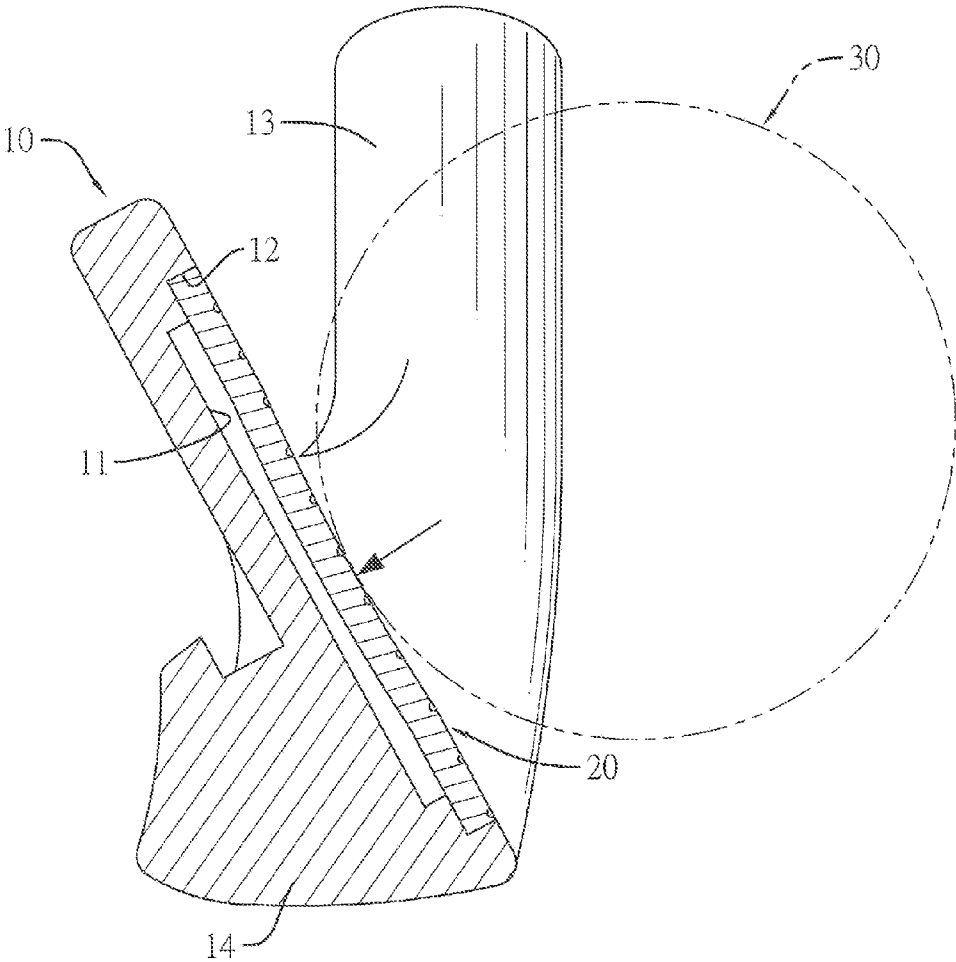


FIG.4

IRON GOLF CLUB HEAD

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] The present invention relates to a golf club head, especially to an iron golf club head.

[0003] 2. Description of the Prior Arts

[0004] A conventional iron golf club head comprises a head body and a strike plate attached securely to a front face of the head body. The head body has a weight mounted on a bottom to increase heft and a hosel formed inclinedly on an end thereof for receiving a shaft to form an iron golf club. When the user hits the golf ball with the conventional iron golf club, the strike plate on the front face of the head body strikes the golf ball.

[0005] When the iron golf club head strikes the golf ball, the iron golf club head is vibrated. To eliminate the vibration, an absorber with a bladder is mounted in and abuts the rear surface of the head body to absorb the vibration during striking.

[0006] However, since the absorber is attached securely on the rear surface of the strike plate, the thickness of the strike plate is increased. Further, the absorber also distributes the force acted on the strike plate so that the degree of deformation of the strike plate during striking is also reduced. Thus, the rebounding effect is lowered during striking.

[0007] To overcome the shortcomings, the present invention provides an iron golf club head to mitigate or obviate the aforementioned problems.

SUMMARY OF THE INVENTION

[0008] The main objective of the present invention is to provide an iron golf club head with enhanced rebounding effect. The iron golf club head has a strike plate mounted securely in a front face of a head body. The head body has a sealed cavity formed in back of the strike plate so that only the peripheral edge of the strike plate is connected to the head body. When the iron golf club head strikes the golf ball, the strike plate deforms to independently bear the striking force and the cavity provides room to receive the deformation of the strike plate. Therefore, the rebounding effect is enhanced when the iron golf club head hits the golf ball.

[0009] Other objectives, advantages and novel features of the invention will become more apparent from the following detailed description when taken in conjunction with the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0010] FIG. 1 is a perspective view of an iron golf club head in accordance with the present invention;

[0011] FIG. 2 is a front view of the iron golf club head in FIG. 1;

[0012] FIG. 3 is a cross-sectional side view of the iron golf club head along line 3-3 in FIG. 2; and

[0013] FIG. 4 is an operational cross-sectional side view of the iron golf club head along line 3-3 in FIG. 2, shown striking a golf ball.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0014] With reference to FIGS. 1 to 3, an iron golf club head in accordance with the present invention comprises a head body 10 and a strike plate 20.

[0015] With reference to FIG. 3, the head body 10 is made of stainless steel or carbon steel by casting or forging. The head body 10 has a cavity 11 formed therein. The depth (w) of the cavity 11 ranges preferably from 0.5 mm to 2.5 mm. A receiving recess 12 is formed in a front face of the head body 10 and communicates with the cavity 11. The depth of the receiving recess 12 corresponds to the thickness (t) of the strike plate 20 to receive the strike plate 20 mounted therein. The receiving recess 12 is wider than the cavity 11. A hosel 13 is formed inclinedly on a side of the head body 10. A weight 14 is mounted on a bottom of the head body 10.

[0016] With reference to FIG. 3, the strike plate 20 is made of high strength steel, maraging steel, spring steel or the like and is a steel board with high elasticity. The strike plate 20 is mounted securely in the receiving recess 12 of the head body 10, covers in front of the cavity 11 to seal the cavity 11 and has a striking face. The striking face is formed on a front face of the strike plate 20 and is flush with the front face of the head body 10. The thickness (t) of the strike plate 20 ranges preferably from 1.5 mm to 2.8 mm. As the strike plate 20 and the head body 10 are both made of steel, the strike plate 20 and the head body 10 are welded to each other and are further surface treated such as by polishing to obtain the iron golf club head.

[0017] With further reference to FIG. 4, when the iron golf club head as described is used, a shaft is connected securely to the hosel 13 to form an iron golf club. When the user strikes the golf ball 30 via the iron golf club head as described, the strike plate 20 hits the golf ball 30. When the strike plate 20 deforms to independently bear the striking force, the cavity 11 in back of the strike plate 20 provides room to receive the deformation of the strike plate 20. Therefore, the strike plate 20 sufficiently stores elasticity to provide enhanced rebounding force to the golf ball 30. Further, the sealed cavity 11 of the head body 10 also eliminates the vibration during striking.

[0018] Moreover, the head body 10 and the strike plate 20 are made of different steels, and each of the head body 10 and the strike plate 20 has its own adequate characteristic. The strike plate 20 is made of high strength steel, maraging steel, spring steel or the like to provide high elasticity and high strength. The head body 10 is made of stainless steel or carbon steel and is welded with the strike plate 20 to provide stability during striking.

[0019] Even though numerous characteristics and advantages of the present invention have been set forth in the foregoing description, together with details of the structure and features of the invention, the disclosure is illustrative only. Changes may be made in the details, especially in matters of shape, size, and arrangement of parts within the principles of the invention to the full extent indicated by the broad general meaning of the terms in which the appended claims are expressed.

What is claimed is:

1. An iron golf club head comprising:
 - a head body having
 - a cavity formed in the head body; and
 - a receiving recess formed in a front face of the head body and communicating with the cavity; and
 - a strike plate mounted securely in the receiving recess of the head body, covering in front of the cavity to seal the cavity and having a striking face formed on a front face of the strike plate and flush with the front face of the head body.

2. The iron golf club head as claimed in claim 1, wherein the head body is made of stainless steel or carbon steel; and the strike plate is made of high strength steel, maraging steel or spring steel.

3. The iron golf club head as claimed in claim 1, wherein a depth of the cavity ranges from 0.5 mm to 2.5 mm; and a thickness of the strike plate ranges from 1.5 mm to 2.8 mm.

4. The iron golf club head as claimed in claim 2, wherein a depth of the cavity ranges from 0.5 mm 2.5 mm; and a thickness off the strike plate ranges from 1.5 mm to 2.8 mm.

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