

(19)



Europäisches Patentamt

European Patent Office

Office européen des brevets



(11)

EP 0 484 499 B1

(12)

EUROPEAN PATENT SPECIFICATION

(45) Date of publication and mention
of the grant of the patent:

24.01.1996 Bulletin 1996/04

(51) Int. Cl.⁶: **A63B 57/00**

(86) International application number: **PCT/SE91/00354**

(21) Application number: **91910137.8**

(87) International publication number: **WO 91/17801**

(28.11.1991 Gazette 1991/27)

(22) Date of filing: **17.05.1991**

(54) **GOLF TEE**

GOLFTEE

TEE DE GOLF

(84) Designated Contracting States:
DE ES FR GB

(72) Inventor: **ERIKSSON, Lars**
S-361 00 Emmaboda (SE)

(30) Priority: **21.05.1990 SE 9001833**

(74) Representative: **Bjelkstad, Peter**
S-131 42 Nacka (SE)

(43) Date of publication of application:
13.05.1992 Bulletin 1992/20

(56) References cited:

(73) Proprietor: **ERIKSSON, Lars**
S-361 00 Emmaboda (SE)

GB-A- 0 238 599

US-A- 1 942 672

US-A- 2 011 203

US-A- 2 440 473

US-A- 2 839 304

US-A- 4 645 208

Note: Within nine months from the publication of the mention of the grant of the European patent, any person may give notice to the European Patent Office of opposition to the European patent granted. Notice of opposition shall be filed in a written reasoned statement. It shall not be deemed to have been filed until the opposition fee has been paid. (Art. 99(1) European Patent Convention).

EP 0 484 499 B1

Description

The present invention relates to a golf tee comprising an anchoring portion, a middle portion and a bowl formed portion for supporting a golf ball.

The tees usually used today on golf-links around the world are manufactured by wood or plastic having a point formed portion intended to be pressed down into the ground and a rigid middle portion which ends in a bowl formation for supporting a golf ball.

This type of tee has many drawbacks consisting in that the tee loosen easily from the teeing off place during driving off and is spread around so that it litters, it destroys lawn-movers and you have to search for it. Further the tee breaks sometimes during driving off and has to be replaced by a new one, small pieces are spread without being visible and are then lying in the way for lawn-movers and said small pieces are difficult to find and to remove when you cannot see them. Owing to that the tee is rigid it flies easily its way, breaks easily and does not yield but can squeeze between the club and the ball and thus jeopardize the driving off so that the ball path is deteriorated.

Further this type of tee is difficult to press down on the teeing off place, which causes that several attempts must be carried out until a real hole has been provided where the tee can be anchored without being loose and extending oblique in the hole. This moment causes that the player wastes unnecessary time and becomes irritated before the tee is anchored in place.

From e.g. US -A- 440 473 is known a tee for golf balls which is resilient and practically unbreakable, said tee consists of a length of wire closely coiled to form a cone of diminishing diameter tapering to a cylindrical portion which terminates in a point with the largest diameter turns of wire and those at the point joined together and from e.g. US -A- 2 839 304 is known a tee for golf balls which also is resilient, said tee consists of a middle part of a spring arrangement, which is connecting together an upper part for supporting the golf ball and a base part including a tapered end adapted for insertion into the ground.

The object of the present invention is to provide a tee of the type described in the beginning, by which the drawbacks mentioned above are eliminated. The features which are significative for the invention are stated in the following claims.

Thanks to the invention a new type of tee is provided having a fold- and deformation area, by which the tee can be fold aside and/or be deformed by a club hit during a driving off and then, during the folding and/or deformation decrease the stress on the tee and thus get it to more often remain at the teeing off place and further minimize the risk that the tee will be hit off. Having a fold- and deformation area the time is extended to attack the tee by the clubhit. Now the exposure effect is reduced and so the damages of the tee and the risk that it flies away as well. Finally the tee can be made so that it easily can be anchored at the driving off place, since its anchor-

ing portion in cross section can be starformed, which prevents that the ground around the same expands during the pressing down. Of course it can also be formed normally, that is conical or the like.

The invention will now be described further in detail by reference to the accompanying drawings, on which

Fig. 1 shows a side view of a tee according a first embodiment of the present invention,

Fig. 2 shows a side view of a tee according to a second embodiment of the present invention,

Fig. 3 shows a perspective view of the tee in Fig. 2,

Fig. 4 shows a side view of a tee according to a third embodiment of the present invention,

Fig. 5 shows a side view of a tee according to a fourth embodiment of the present invention,

Fig. 6 shows a side view of a tee according to a fifth embodiment of the present invention,

Fig. 7 shows a side view of a tee according to a sixth embodiment of the present invention and

Fig. 8 shows a schematic side view of the tee in Fig. 7 during the hit of a club blade

The embodiment according to Fig. 1 comprises a folding zone 5 along the middle portion 3, which is tube formed and said tube formation extends upwards in the tee 1 and terminates collar formed in the golf ball supporting portion 4. Here the ribs 6 on the anchoring portion 2 are barb formed for better anchoring into the ground.

The embodiment illustrated in Fig. 2 and 3 has a folding zone 5 provided with slits 7 above each other and extending in the cross-direction of the tee 1, and the thin-wall tube formation of said tee 1 having upwards diverging walls. The tube formation can be conically formed. The folding zone 5 can extend all the way up to the top to easier be able to be deformed without being easily broken. In this case the tee will become very flexible and is bend and stretched out when being hit as a concertina or network 12 in the same way as illustrated in Fig. 8. During a pressure from above the disc elements 11 are pressed against each other and decrease the tipping effect of the folding zone 5. The folding zone 5 now functions best during driving off, but it is yet rather rigid during the pressing down movement of the tee into the ground.

The embodiment according to Fig. 4 illustrates a tee 1 having elongated slits 8, extending in their longitudinal direction, said slits are intended to avoid gathering of material in the folding zone 5 when bending the same during hit of a club blade. By the conicity of the cavity of the tee 1 also its manufacturing can be simplified and the tool for its manufacturing be made cheaper. The slits 8

can extend all the way up to top of the tee. It can in this case take up deformations without being broken easy.

Fig. 5 illustrates an embodiment reminding about that illustrated in Fig. 2, but here the transverse slits 7 are differently placed in the folding zone 5.

The embodiment illustrated in Fig. 6 has a folding zone 5 consisting of a bellow-formed, thin-walled tube formation 9. During driving off the bellow can be folded and/or stretched like a concertina.

Tees having tubular folding- and deformation zones give better possibilities for a person to press them down into the ground where the driving off shall take place. The breaking point in this case is situated outside the point of balance during substantially upright position i.e. a vertical location of the tee. The trend that the tee tilts when a ball is lying on its upper portion is reduced also by these types of tees. They have also easier to take up deformations without break. The folding zone 5 of the tee can extend right up to the ball according to Fig. 7 and 8. The folding zone 5 itself can accordingly be thread-, strip-, tube-, oval-, edged- or ribformed in oblique, straight, bent or similar extensions above the tip or anchoring portion 2 of the tee.

Claims

1. Golftee comprising an anchoring portion (2), a middle portion (3) and a golfball supporting portion (4), **characterized in** that the middle portion (3) is integrally formed with the anchoring portion (2) and said golfball supporting portion (4) and consists of a resilient thin walled material piece in which said thin walled piece there being formed a folding zone (5) for providing of a lateral movement and/or a deformation of the supporting portion (4) when being hit by a golf club during a driving off in reducing of the risk of tee break.
2. Tee according to claim 1, **characterized in** that the folding zone (5) is submerged into a collar formed part of the anchoring portion (2) and said part also is a stop flange for the pressing down movement of the tee (1) into the ground over and above a predetermined length.
3. Tee according to claim 1 or 2, **characterized in** that the folding zone (5) consists of a perforated cavity formation.
4. Tee according to any of the preceding claims, **characterized in** that the perforated folding zone (5) consists of a bellow-formed, thin-walled tube formation (9).
5. Tee according to any of the preceding claims, **characterized in** that the thin-walled, tube formation comprises diverging walls in a direction towards the golf ball supporting portion (4).

6. Tee according to any of the preceding claims, **characterized in** that the perforations in the thin-walled, tube formation consist of elongated slits (8) extending in the longitudinal direction of the tee (1) or short slits (7) extending across the longitudinal direction of the tee (1) and provided over and above each other.

Patentansprüche

1. Golftee, bestehend aus einem Verankerungsteil (2), einem Mittelteil (3) und einem Golfball-Abstützteil (4), dadurch gekennzeichnet, daß der Mittelteil (3) mit dem Verankerungsteil (2) und dem Golfball-Abstützteil (4) einstückig ausgebildet ist und aus einem elastischnachgiebigen, dünnwandigen Materialstück besteht, wobei in diesem dünnwandigen Stück eine Faltzone (5) ausgebildet ist zur Bereitstellung einer seitlichen Bewegung und/oder einer Deformation des Abstützteils (4), wenn er von einem Golfschläger während eines Abschlages getroffen ist, um dadurch das Risiko eines Brechens des Tee zu reduzieren.
2. Tee nach Anspruch 1, dadurch gekennzeichnet, daß die Faltzone (5) in einen bundförmigen Teil (10) des Verankerungsteils (2) untergetaucht ist und dieser Teil auch ein Stoppflansch für die Niederdrück-Bewegung des Tee (1) in den Boden über und oberhalb einer vorbestimmten Länge ist.
3. Tee nach Anspruch 1 oder 2, dadurch gekennzeichnet, daß die eingedrückte Faltzone (5) aus einer perforierten Hohlraumausbildung besteht.
4. Tee nach einem der vorhergehenden Ansprüche, dadurch gekennzeichnet, daß die perforierte Faltzone (5) aus einer balgförmigen, dünnwandigen Rohrausbildung (9) besteht.
5. Tee nach einem der vorhergehenden Ansprüche, dadurch gekennzeichnet, daß die dünnwandige, hohle Ausbildung divergierende Wände in einer Richtung gegen den Golfball-Abstützteil (4) aufweist.
6. Tee nach einem der vorhergehenden Ansprüche, dadurch gekennzeichnet, daß die Perforationen in der dünnwandigen, hohlen Ausbildung aus länglichen Schlitzten (8) bestehen, die in der Längsrichtung des Tee (1) verlaufen, oder kurzen Schlitzten (7), die quer zu der Längsrichtung des Tee (1) verlaufen und die über und oberhalb voneinander vorgesehen sind.

Revendications

1. Tee de golf comportant une partie d'ancrage (2), une partie centrale (3) et une partie (4) de support de la

balle de golf, caractérisé en ce que la partie centrale (3) est formée d'une seule pièce avec la partie d'ancrage (2) et ladite partie (4) de support de la balle de golf, et consiste en une pièce de matière à paroi mince élastique, une zone de pliage (5) étant formée dans ladite pièce à paroi mince pour fournir un mouvement latéral et/ou une déformation de la partie de support (4) lorsqu'elle est heurtée par une balle de golf lors d'une frappe, en réduisant le risque de rupture du tee.

5

10

2. Tee selon la revendication 1, caractérisé en ce que la zone de pliage (5) est noyée dans une partie (10), formée par une collerette, de la partie d'ancrage (2), et ladite partie est également un rebord de butée pour le mouvement de pressage vers le bas du tee (1) dans le sol sur une longueur prédéterminée.
3. Tee selon la revendication 1 ou 2, caractérisé en ce que la zone de pliage (5) à empreinte consiste en une formation perforée à cavités.
4. Tee selon l'une quelconque des revendications précédentes, caractérisé en ce que la zone de pliage perforée (5) est constituée d'une formation en tube (9) en forme de soufflet à paroi mince.
5. Tee selon l'une quelconque des revendications précédentes, caractérisé en ce que la formation creuse à paroi mince comporte des parois divergentes dans une direction allant vers la partie (4) de support de la balle de golf.
6. Tee selon l'une quelconque des revendications précédentes, caractérisé en ce que les perforations dans la formation creuse à paroi mince consistent en des fentes allongées (8) s'étendant dans la direction longitudinale du tee, ou en des fentes courtes (7) s'étendant transversalement à la direction longitudinale du tee (1) et prévues l'une au-dessus de l'autre.

15

20

25

30

35

40

45

50

55



