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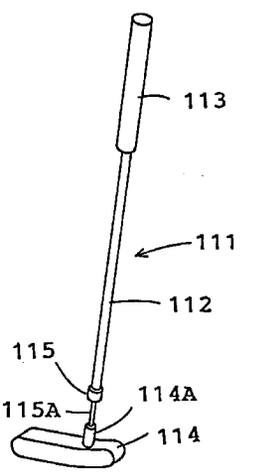
(54) A putter

(57) A golf putter (111) has a shaft (112), a head (114) and a spring stick part (115A) between the shaft and the head. When a player hits a ball with the putter, the spring stick part of the putter is elastically bent by the inertia of the head in the stroke to hit said ball and said head of the putter is corrected by the inertia of the head and the elastic recovery of the spring stick part so as to move along a straight line.

Fig. 1



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Description

[FIELD OF THE INVENTION]

The present invention relates to a putter used in playing golf.

More particularly, the present invention relates to a putter consisting of a shaft, a head and a spring stick part between said shaft and said head.

[DESCRIPTION OF THE PRIOR ART]

As shown in Fig. 9, the traditional putter (101) used in playing golf consists of a shaft (102) to the upper end of which a grip (103) is arranged and a head (104) a neck (104A) of which is attached to a socket (105) attached to the lower end of said shaft (102).

When the player tries to hit a ball by using said traditional putter (101), it is difficult for the player to feel the inertia caused by the weight of said head (104) of said putter (101) and accordingly, it is difficult for the player to adjust the power and the direction to hit the ball.

[SUMMARY OF THE INVENTION]

Accordingly, an object of the present invention is to provide a putter used in playing golf such that the player can easily feel the inertia of the head of the putter when the player hits a ball by using said putter.

Further object of the present invention is to provide a putter used in playing golf such that the player can easily adjust the power and the direction when he hits a ball.

Briefly, said objects of the present invention can be attained by a putter consisting of a shaft, a head and a spring stick part between said shaft and said head.

[BRIEF DESCRIPTION OF THE DRAWINGS]

Fig. 1 to Fig. 3 show an embodiment of the present invention.

Fig. 1 is a perspective view of a putter.

Fig. 2 is a partial side view of the lower end part of said putter when said putter is located at the rear most position of the stroke.

Fig. 3 is a partial side view of the lower end part of said putter when said putter hits a ball.

Fig. 4 is a plan view of the head of said putter to illustrate the movement of said head when said putter hits a ball.

Fig. 5 is a perspective view of a putter of another embodiment of the present invention.

Fig. 6 is a perspective view of a putter of further embodiment of the present invention.

Fig. 7 is a perspective view of a putter of still further embodiment of the present invention.

Fig. 8 is a cross sectional view of a spring stick part of still further embodiment of the present invention.

Fig. 9 is a perspective view of a conventional putter.

[DETAILED DESCRIPTION]

Fig. 1 to Fig. 3 relate to an embodiment of the present invention. Referring now to Fig. 1, a putter (111) consists of a shaft (112) to the upper end of which a grip (113) is attached and a head (114) a neck (114A) of which is attached to a socket (115) having a spring stick part (115A) and attached to the lower end of said shaft (112) wherein said spring stick part (115A) has a round cross section and the diameter of said round cross section is desirably less than 5 mm.

When a player hits a ball B by using said putter (111), said spring stick part (115A) of said putter (111) may bend backward by the inertia caused by the mass of said head (114) from the position shown by a dotted line to the position shown by a solid line at the rear most of the stroke as shown in Fig. 2, and said bending spring stick part (115A) elastically recovers after said putter (111) starts to move forward from the rear most of the stroke such that the velocity of the movement forward of said head (114) gains the velocity of said elastic recovery to amplify the inertia. As a result, said spring stick part (115A) may be bent by said amplified inertia to the position shown by a solid line from the elastic recovery position shown by a dotted line when said head (114) hits the ball B as shown in Fig. 3.

Accordingly, the player can sufficiently feel said amplified inertia of said head (114), namely, the weight due to the mass of said head (114), and if the player strokes said putter (111) along a curved dotted line b, said head (114) moves along a straight line toward the inertia acting direction shown by an arrow a in Fig. 4 since said spring stick part (115A) has a round cross section. As a result, the player can hit the ball B in the desired direction.

Fig. 5 relates to another embodiment of the present invention. In this embodiment, a putter (121) consists of a shaft (122) to the upper end of which a grip (123) is attached and a head (124) a neck (124A) of which is attached to a bending socket (125) attached to the lower end of said shaft (122) wherein a spring stick part (124B) having a round cross section is formed in said neck (124A) of said head (124).

Fig. 6 relates to further embodiment of the present invention. In this embodiment, a putter (131) consists of a shaft (132) to the upper end of which a grip (133) is attached and a neck (134A) of a head (134) attached to a spring stick part (132A) formed at the end of said shaft (132).

Fig. 7 relates to still further embodiment of the present invention. In this embodiment, a putter (141) consists of a shaft (142) to the upper end of which a grip (143) is attached and a head (144) without the neck directly attached to a spring stick part (142A) formed at the lower end of said shaft (142).

Besides the above described embodiments, the cross section of said spring stick part may have a shape that is triangular, square, hexagonal and the like, and further, a spring stick part (155A) having a cross section

as shown in Fig. 8 may be also applied in the present invention.

A spring stick part having a round cross section or a cross section shown in Fig. 8 can bend in any direction such that said spring stick part can bend by the impact from any direction when the head of the putter hits a ball.

Claims

1. A putter consisting of a shaft, a head and a spring stick part between said shaft and said head.

2. A putter in accordance with claim 1 wherein said spring stick part has a round cross section.

3. A putter in accordance with claim 2 wherein the diameter of said round cross section is less than 5 mm.

4. A putter according to claim 1 wherein said spring stick part has a triangular cross section.

5. A putter according to claim 1 wherein said spring stick part has a square cross section.

6. A putter according to claim 1 wherein said spring stick part has a hexagonal cross section.

Fig. 1

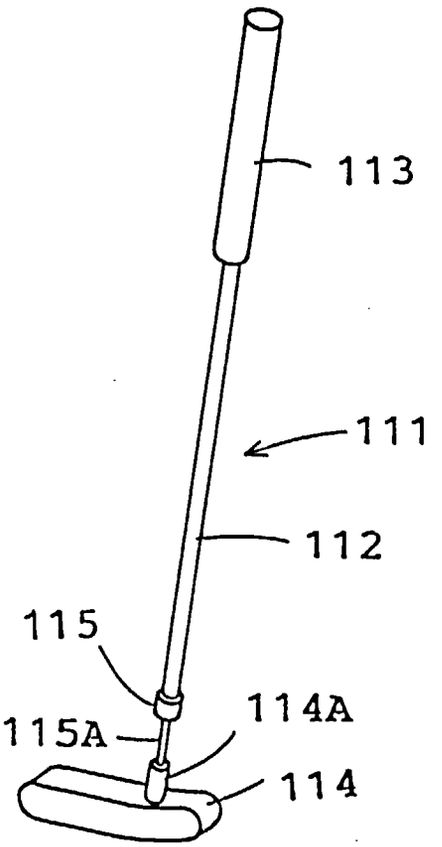


Fig. 2

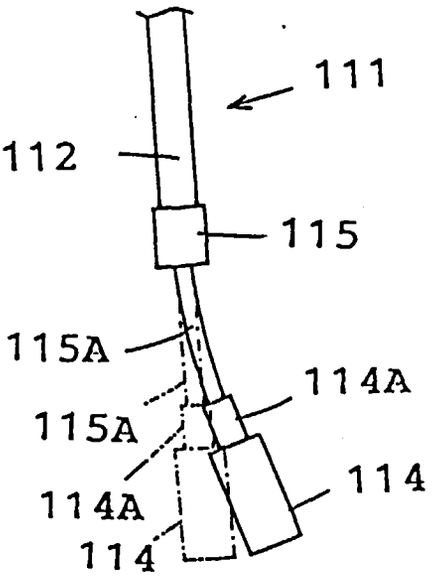

111
112
115
115A
114A
115A
114
114A
114

Fig. 3

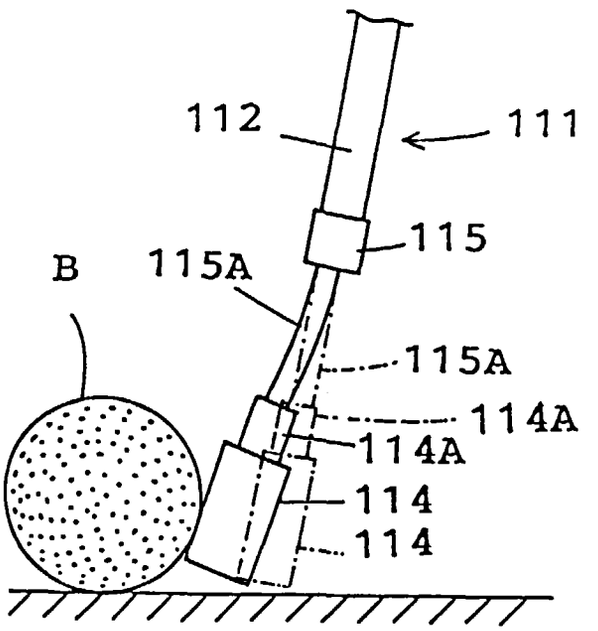

112
111
115
B
115A
115A
114A
114A
114
114

Fig. 4

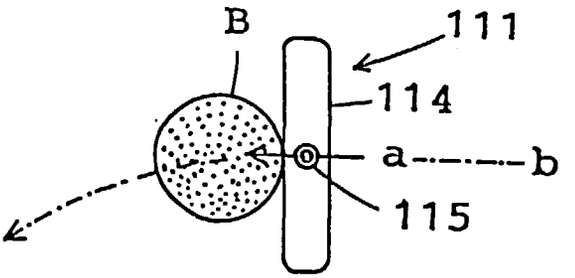


Fig. 5

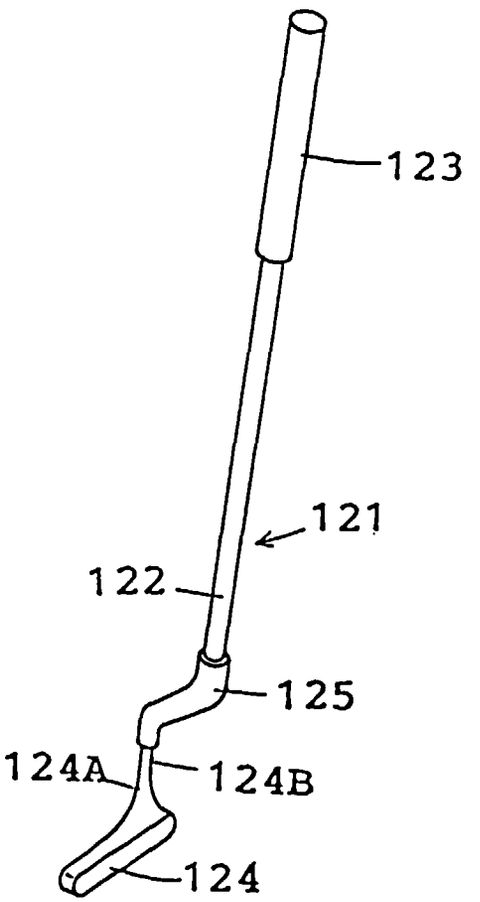


Fig. 6

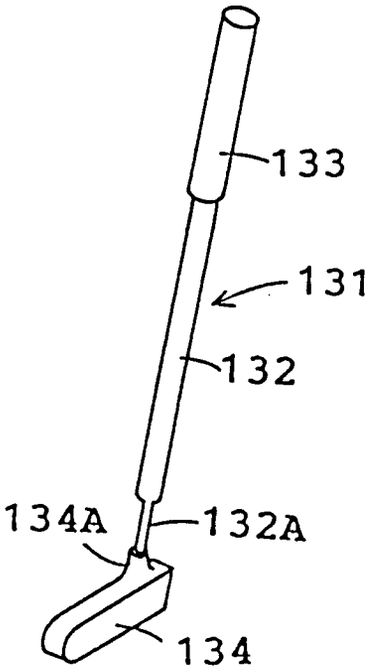


Fig. 7

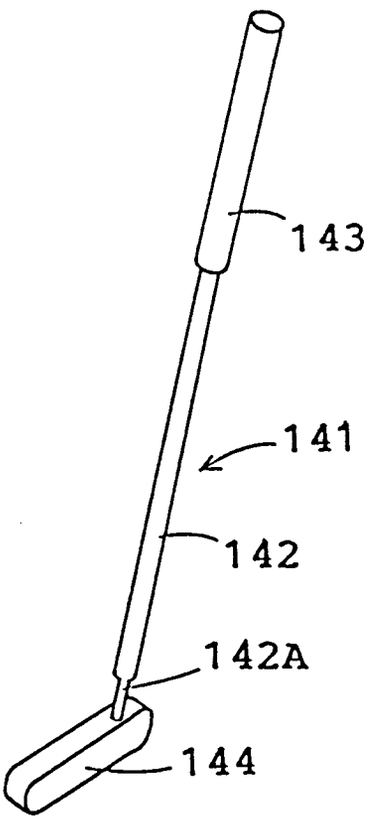


Fig. 8

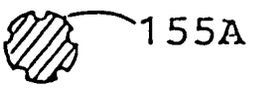
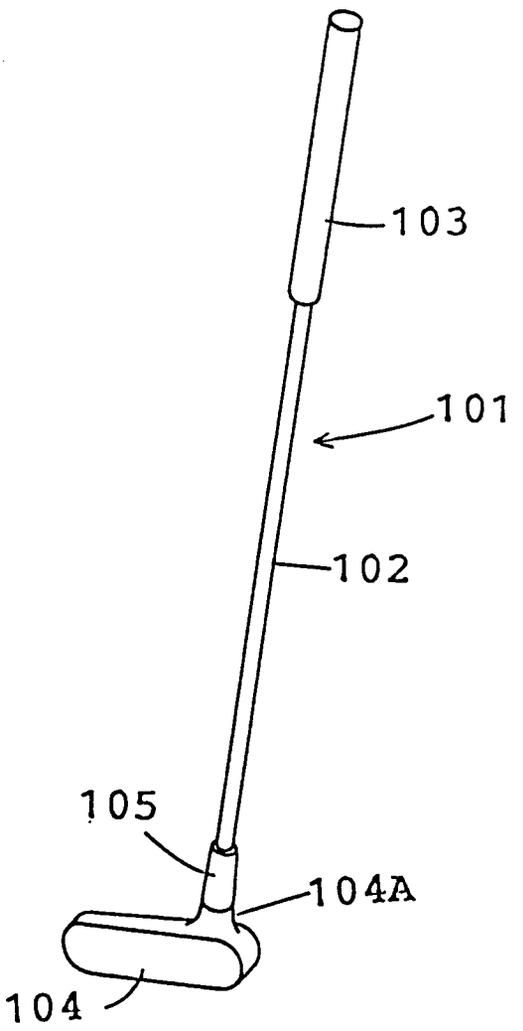


Fig. 9



European Patent Office

EUROPEAN SEARCH REPORT

Application Number
EP 96 30 1119

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
X	US-A-3 519 270 (BAYMILLER) * column 2, line 43 - column 3, line 55; figures 1-3 *	1-3	A63B53/02 A63B53/00
X	US-A-5 190 291 (MELVIN) * column 5, line 5 - line 17; figure 5 *	1,2	
X	US-A-1 428 015 (DIENNER) * the whole document *	1,5	
A	GB-A-1 041 477 (BRANDELL PRODUCTS CORPORATION) * page 2, line 50 - page 3, line 11; figures 1-5H *	1,2,4-6	
A	GB-A-477 647 (BYRNE) * the whole document *	1,6	
A	US-A-5 292 128 (SOLHEIM)		

TECHNICAL FIELDS SEARCHED (Int.Cl.6)

A63B

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	18 July 1996	Williams, M

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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D : document cited in the application
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