

Europäisches Patentamt European Patent Office Office européen des brevets



(11) **EP 1 252 916 A3**

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3: **10.09.2003 Bulletin 2003/37**

(51) Int CI.7: **A63B 53/04**

(43) Date of publication A2: **30.10.2002 Bulletin 2002/44**

(21) Application number: 02251837.7

(22) Date of filing: 14.03.2002

(84) Designated Contracting States:

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU

MC NL PT SE TR

Designated Extension States:

AL LT LV MK RO SI

(30) Priority: 15.03.2001 GB 0106364

(71) Applicant: Buchanan Golf Limited Ludlow, Shropshire, SY8 1EN (GB)

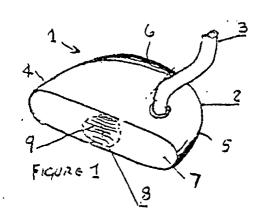
(72) Inventor: Buchanan, Douglas Boyd Ludlow, Shropshire SY8 1EN (GB)

(74) Representative: Skone James, Robert Edmund GILL JENNINGS & EVERY Broadgate House 7 Eldon Street London EC2M 7LH (GB)

(54) Putter head with pre-machined insert

(57) The invention provides a head (2) for a putter. The face (7) of the putter head (2) includes very shallow markings (9) having a depth of the order of 50 microns (0.05mm). The markings (9) are formed on an insert (19) defining the sweet spot (26) of the putter face (7) by an end milling process with the insert (19) being resiliently

supported and fixed within a cavity in the head (2) by means of resilient 0-rings (28,29). Since the resilient 0-rings (28,29) take up any clearance the insert (19) does not need to be made to tight tolerance and can be machined outwith the head (2) prior to insertion within the head cavity. The markings (9) produced are radial and non-concentric grooves.



EP 1 252 916 A3



EUROPEAN SEARCH REPORT

Application Number

EP 02 25 1837

Category	Citation of document with inc		Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)		
Х	US 4 964 641 A (MIES 23 October 1990 (199	SCH GARY D ET AL)	1-4, 7-11, 13-15	A63B53/04		
	* column 3, line 15 1,2,4 *	- line 21; figures	13-15			
Υ	* column 2, line 20 * column 4, line 35 1,2,4 *	- line 60 * - line 46; figures	5,6,12			
Υ	EP 0 965 366 A (BUCK 22 December 1999 (19	HANAN PUTTER CO LTD)	5,6,12			
A	* paragraph [0004];	figures 2,4 *	7-11			
A	US 3 387 844 A (WINS 11 June 1968 (1968-6 * column 3, line 1 - * column 4, line 3 -	06-11)	7-11			
A	JP 2000 296191 A (DA 24 October 2000 (200		1-15			
	* abstract *	, 		TECHNICAL FIELDS SEARCHED (Int.CI.7)		
				A63B		
	The present search report has be					
Place of search MUNICH		Date of completion of the search 6 June 2003	Jekabsons, A			
CATEGORY OF CITED DOCUMENTS X: particularly relevant if taken alone Y: particularly relevant if combined with another document of the same category A: technological background		T: theory or principle E: earlier patent doc after the filing date D: document cited fo L: document cited fo	e underlying the ir nument, but publis e n the application or other reasons	nvention hed on, or		
A : technological background O : non-written disclosure P : intermediate document		& : member of the sa	& : member of the same patent family, corresponding document			

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 02 25 1837

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

06-06-2003

	Patent document cited in search repo	rt	Publication date		Patent fam member(s	ily 5)	Publication date
US	4964641	Α	23-10-1990	NONE			
EP	0965366	Α	22-12-1999	EP JP	0965366 2000024148	A1 A	22-12-1999 25-01-2000
US	3387844	Α	11-06-1968	NONE			
JP	2000296191	A	24-10-2000	NONE			

© in For more details about this annex : see Official Journal of the European Patent Office, No. 12/82