



(11) **EP 1 777 457 A3**

(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
04.06.2008 Bulletin 2008/23

(51) Int Cl.:
F23N 1/00 (2006.01) F23K 5/00 (2006.01)

(43) Date of publication A2:
25.04.2007 Bulletin 2007/17

(21) Application number: **06101209.2**

(22) Date of filing: **02.02.2006**

(84) Designated Contracting States:
**AT BE BG CH CY CZ DE DK EE ES FI FR GB GR
HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI
SK TR**
Designated Extension States:
AL BA HR MK YU

(72) Inventors:
• **Demirezen, Mehmet**
7. CAD. no : 2/A-B
34520, Istanbul (TR)
• **Turhan, Gokhan**
7. CAD.no:2/A-B
34520, Istanbul (TR)
• **Gun, Isa**
7. CAD.no:2/A-B
34520, Istanbul (TR)

(30) Priority: **21.10.2005 TR 200600048**

(71) Applicant: **Turas Gas Armatures**
R&D
34520 Istanbul (TR)

(54) **Pressure spring for taps with adjustment screw**

(57) A specifically designed spring (1), which is not fully conic and can be integrated fully into a gas tap system has been designed. In this spring (1) a definite fixed spire (16) and the following spires (17) have conic position that shall not go through each other and shall be of the same linear shape requested. The internal diameter of fixed spears (16) is greater than the largest diameter of the adjustment screw. The fixed spears (7) are smaller than the male internal diameter (22). In this way, it is replaced inside the male. The spears coming after the

conic part (23) do not have any conic position and the external diameter is in a manner that can go inside the mile (3). The internal diameter of the spring (24) is in a manner through which screwdriver can pass to adjust the adjustment screw. There is a β angle (15) with spring conic having been determined according to the I-I axis. This conic angle (15) has been designed in such a manner that the spring spires do not go through each other at this point and do not mount on the adjustment screw (2).

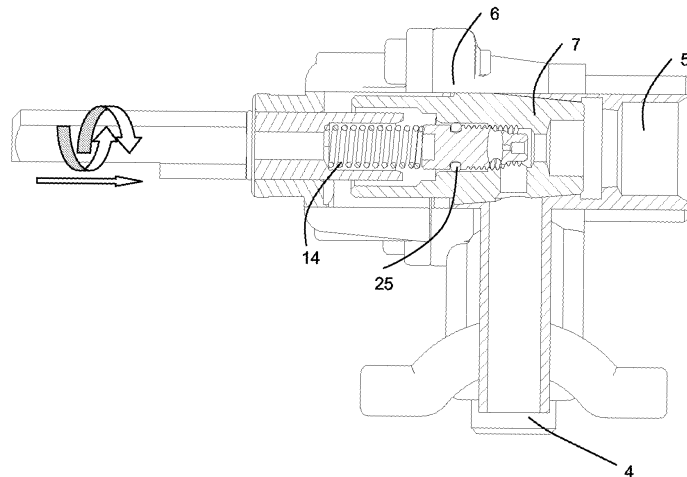


Figure 1

EP 1 777 457 A3

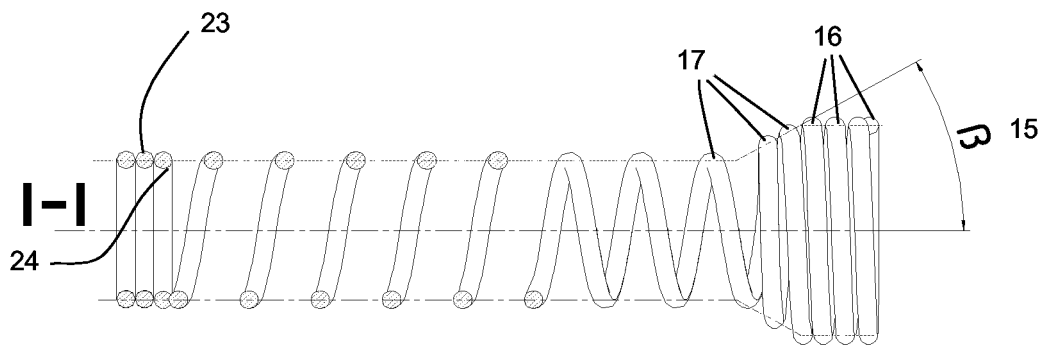


Figure 6



DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
E	EP 1 744 085 A (LINCOLN BRASS WORKS [US]) 17 January 2007 (2007-01-17) * paragraphs [0030], [0036]; figure 7 *	1	INV. F23N1/00 F23K5/00
X	EP 0 969 250 A (VITROMATIC COMERCIAL S A DE C [MX]; ACROTEC S A DE C V [MX]) 5 January 2000 (2000-01-05) * paragraphs [0014] - [0017]; figures 7-9 *	1	
Y	-----	2-5	
X	GB 1 260 296 A (CANNON INDUSTRIES LMTD) 12 January 1972 (1972-01-12) * page 3, line 127 - page 5, line 70; figure 15 *	1	
X	US 6 726 175 B1 (SABA TARAZ U LLAH [NZ] ET AL) 27 April 2004 (2004-04-27) * column 4, lines 13-64; figures 2,3,11 *	1	
X	US 5 067 651 A (GENBAUFFE FRANCIS S [US]) 26 November 1991 (1991-11-26) * column 6, lines 24-48; figure 3 *	1	
Y	US 2004/238049 A1 (LIN WUU-HUNG [TW]) 2 December 2004 (2004-12-02) * paragraph [0027]; figures 1,10 *	2-5	
A	EP 0 113 876 A (HONEYWELL INC [US]) 25 July 1984 (1984-07-25) * figure 1 *	1-5	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (IPC)
			F16K F23K F23N
1	Place of search	Date of completion of the search	Examiner
	The Hague	28 April 2008	Coli, Enrico
CATEGORY OF CITED DOCUMENTS		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons	
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		& : member of the same patent family, corresponding document	

EPO FORM 1503 03.02 (P04C01)

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

EP 06 10 1209

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.

28-04-2008

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 1744085	A	17-01-2007	US 2007007482 A1	11-01-2007
EP 0969250	A	05-01-2000	BR 9807314 A	02-05-2000
			CA 2279926 A1	17-06-1999
			WO 9930083 A1	17-06-1999
			US 5975135 A	02-11-1999
GB 1260296	A	12-01-1972	NONE	
US 6726175	B1	27-04-2004	AU 771667 B2	01-04-2004
			AU 1313601 A	14-05-2001
			CA 2389850 A1	10-05-2001
			EP 1230502 A1	14-08-2002
			JP 2003513220 T	08-04-2003
			WO 0133118 A1	10-05-2001
US 5067651	A	26-11-1991	NONE	
US 2004238049	A1	02-12-2004	NONE	
EP 0113876	A	25-07-1984	JP 59117970 A	07-07-1984