(11) **EP 1 477 456 A3**

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3: **30.03.2005 Bulletin 2005/13**

(51) Int Cl.7: **B67D 1/08**

(43) Date of publication A2: 17.11.2004 Bulletin 2004/47

(21) Application number: 04019246.0

(22) Date of filing: 16.11.1998

(84) Designated Contracting States:

AT BE CH DE DK ES FI FR GR IE IT LI LU NL PT SE

(30) Priority: 18.11.1997 GB 9724225

(62) Document number(s) of the earlier application(s) in accordance with Art. 76 EPC: 98952989.6 / 1 042 215

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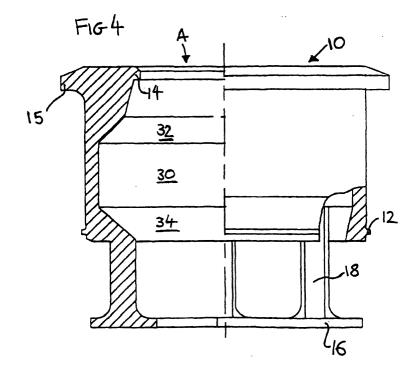
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(54) Beer keg and valve fitting

(57) A fitting (F) for a fluid storage barrel (B) comprises an integral housing (10) including a valve having a seal (24) and spring (20) for biasing the seal (24) against the valve seat (14) to close the aperture (A). The fitting (F) is located within the opening (O) of the barrel (B) directly, for example by welding. The fitting includes

an annular cavity substantially larger than aperture (A) for larger flow volume past opened seal (24) and relatively large apertures between legs (18) enhance flow and a bottom plate (16) that diverts incoming fluid laterally to the barrel sides. The spring (20) and seal plate (22) each includes means to avoid accidental removal from the fitting.





EUROPEAN SEARCH REPORT

Application Number EP 04 01 9246

Category	Citation of document with i of relevant pass	ndication, where appropriate, sages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)	
χ	WO 91/00240 A (SKER GEORGE (AU)) 10 Jar	RA HELMUT ;KARHAN Juary 1991 (1991-01-10)	1-3,6,11	B67D1/08 B67D1/08	
A		line 16; figures 7,8 *	12,17		
X	US 4 685 598 A (NEZ 11 August 1987 (198		1-4,6,11		
A	* column 8, line 49	12,17			
Х	GB 2 209 740 A (GRL		12-16,20		
A	24 May 1989 (1989-0 * page 5, line 18 - * page 6, line 2 -		17		
E	GB 2 328 204 A (SIM 17 February 1999 (1 * abstract; figures		1,11		
E			12-20	TECHNICAL FIELDS SEARCHED (Int.Cl.7)	
				B67D	
A	US 3 776 260 A (RUD 4 December 1973 (19 * column 6, line 23				
A	PATENT ABSTRACTS OF vol. 1996, no. 10, 31 October 1996 (19 & JP 8 143100 A (KO 4 June 1996 (1996-0 * abstract *	96-10-31) 0Y00:KK; NASU TOA KK),	12		
A	US 4 529 105 A (LEW 16 July 1985 (1985- * column 3, line 15	17			
		-/ 			
	The present search report has	been drawn up for all claims			
	Place of search	Date of completion of the search	Users	Examiner	
X : part Y : part docu	The Hague ATEGORY OF CITED DOCUMENTS icularly relevant if taken alone icularly relevant if combined with another than the same category inclogical background	E : earlier patent do after the filling de ther D : document cited L : document cited f	le underlying the i cument, but publi te in the application or other reasons	invention shed on, or	



EUROPEAN SEARCH REPORT

Application Number EP 04 01 9246

Category	Citation of document with indicatio	n, where appropriate.	Relevant	CLASSIFICATION OF THE
alegory	of relevant passages	. , , , , , , , , , , , , , , , , , , ,	to claim	APPLICATION (Int.CI.7)
4	GB 1 530 815 A (GRUNDY 1 November 1978 (1978-1 * page 1, line 97 - page figures 1-3 *	1-01)	17	
				TECHNICAL FIELDS SEARCHED (Int.Cl.7)
	·			
	The present search report has been dr	awn up for all claims	-	
	Place of search	Date of completion of the search	لـــــا	Examiner
	The Hague	7 January 2005	War	tenhorst, F
X : part Y : part docu A : tech	ATEGORY OF CITED DOCUMENTS icularly relevant if taken alone icularly relevant if combined with another ument of the same category inological background —written disclosure rmediate document	E : earlier patent d after the filing d D : document cited L : document cited	ple underlying the is ocument, but publis ate I in the application for other reasons	nvention shed on, or



Application Number

EP 04 01 9246

CLAIMS INCURRING FEES
The present European patent application comprised at the time of filing more than ten claims.
Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claim(s):
No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.
LACK OF UNITY OF INVENTION
The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:
see sheet B
All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.
Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:
None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:



LACK OF UNITY OF INVENTION SHEET B

Application Number EP 04 01 9246

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-11

A valve fitting for a barrel comprising an integral housing, a valve, a fluid diversion plate and a centre piece.

2. claims: 12-16,20

A spring for co-operating with a valve fitting on a barrel comprising means for preventing accidental removal thereof.

3. claims: 17-19

A spring and plate for use in a valve fitting comprising means for preventing accidental removal of the plate from the spring.

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

EP 04 01 9246

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.

07-01-2005

	Patent document ed in search repor	t	Publication date		Patent family member(s)		Publication date
WO	9100240	A	10-01-1991	WO	9100240	A1	10-01-19
US	4685598	Α	11-08-1987	DE GB	3724320 2194522		10-03-198 09-03-198
GB	2209740	Α	24-05-1989	NONE			
GB	2328204	Α	17-02-1999	AU CN DE EP WO RU US	8637498 / 1132778 69809253 1003687 / 9907632 / 2198132 (6308869	B D1 A1 A1 C2	01-03-199 31-12-200 12-12-200 31-05-200 18-02-199 10-02-200 30-10-200
WO	9925641	Α	27-05-1999	AU GB WO	1050099 / 2331293 / 9925641 /	A ,B	07-06-199 19-05-199 27-05-199
US	3776260	Α	04-12-1973	BE DE FR GB NL AU	782058 / 2217061 / 2136332 / 1331324 / 7204876 / 4099072 /	A1 A5 A	31-07-19 26-10-19 22-12-19 26-09-19 17-10-19 18-10-19
JP	8143100	Α	04-06-1996	NONE			
US	4529105	A	16-07-1985	GB AT AU BR CA DE DK EP ES IE JP MX ZA	2117071 / 29018 553007 1262783 / 8301389 / 1187449 / 3373088 128183 / 0089727 / 8402542 / 54409 58216591 / 158290 / 8301905 /	T B2 A A1 D1 A A2 A1 B1 A	05-10-19 15-09-19 26-06-19 29-09-19 29-11-19 21-05-19 24-09-19 23-09-19 01-05-19 27-09-19 16-12-19 20-01-19
	1530815	Α	01-11-1978	NONE			