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Publication number:

0 364 009 A3

12

EUROPEAN PATENT APPLICATION

21 Application number: **89122730.8**

51 Int. Cl.⁵: **F17C 9/00, B65B 31/00**

22 Date of filing: **30.01.89**

30 Priority: **29.02.88 GB 8804760**

43 Date of publication of application:
18.04.90 Bulletin 90/16

60 Publication number of the earlier application in
accordance with Art.76 EPC: **0 331 287**

84 Designated Contracting States:
AT BE CH DE ES FR GR IT LI LU NL SE

88 Date of deferred publication of the search report:
27.03.91 Bulletin 91/13

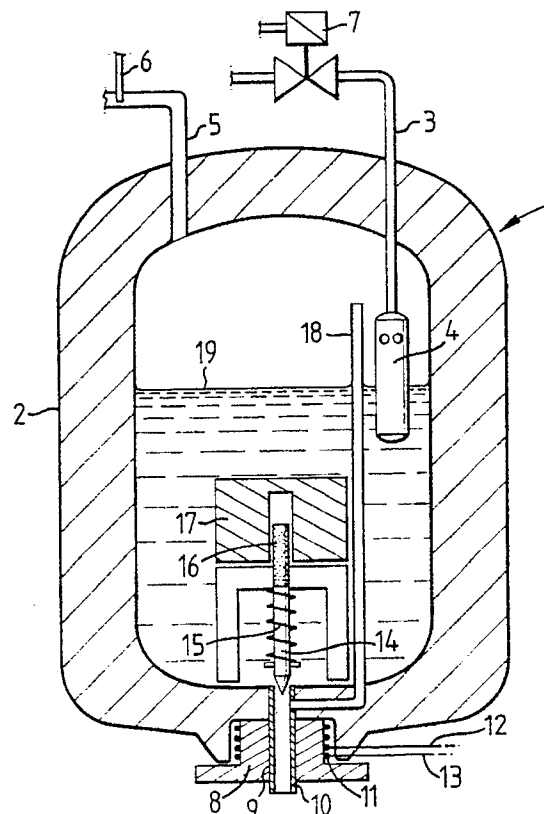
71 Applicant: **AIR PRODUCTS AND CHEMICALS,
INC.**
P.O. Box 538
Allentown, Pennsylvania 18105(US)

72 Inventor: **Miller, Jeremy Paul**
192 Beam Hill Road Burton-on-Trent
Staffs DE3 9QP(GB)

74 Representative: **Lucas, Brian Ronald**
Lucas, George & Co. 135 Westhall Road
Warlingham Surrey CR3 9HJ(GB)

54 **Dispenser for dispensing cryogenic liquid.**

57 A dispenser (1) for dispensing slugs of cryogenic liquid to bottles or cans on a bottling or canning line, comprises a vessel (2) for holding cryogenic liquid, a dispenser tube (10) mounted on said vessel (2), a valve (14) associated with said dispenser tube (10) and operable, in use, to allow or inhibit the flow of cryogenic liquid from said vessel (2), and means (16, 17) which are wholly contained within said vessel (2) for opening and closing said valve (14), characterized in that said means (16, 17) are capable of opening and closing said valve (14) at least 600 times per minute.



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EUROPEAN SEARCH REPORT

Application number

EP 89 19 2730

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. 4)
X	US-A-4 407 340 (E.L. JENSEN et al.) * Abstract; figures 1,2; column 2, lines 3-16; column 2, line 33 - column 4, line 32 *	1,6,7	F 17 C 9/00 B 65 B 31/00 F 16 K 31/08
Y	--	2	
Y	US-A-4 469 304 (C.L.C. KAH, Jr.) * Abstract; figures 1,2; column 1, line 66 - column 4, line 11; column 5, lines 46-55 * -----	2	
			TECHNICAL FIELDS SEARCHED (Int. Cl. 4)
			F 16 K F 17 C
XX			
Place of search		Date of completion of the search	Examiner
The Hague		22-03-1990	SIEM
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 O : non-written disclosure P : intermediate document 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 & : member of the same patent family, corresponding document			



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CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing more than ten claims.

- ☐ All claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for all claims.
- ☐ Only part of the claims fees 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 claims:
- ☐ 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.

X LACK OF UNITY OF INVENTION

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

namely:

1. Claims 1,2,6,7: The opening and closing of valve (14)
2. Claims 3-5: Presence of a gas relief tube

- ☐ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- ☐ 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 has 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: 1, 2, 6, 7