

12

# **EUROPEAN PATENT APPLICATION**

21 Application number: **88305339.9**

51 Int. Cl.<sup>4</sup>: **B 67 C 11/04**  
**B 67 D 3/00**

22 Date of filing: **10.06.88**

30 Priority: **12.06.87 GB 8713749**

43 Date of publication of application:  
**14.12.88 Bulletin 88/50**

84 Designated Contracting States:  
**BE DE ES FR GB IT LU NL SE**

88 Date of deferred publication of search report:  
**28.06.89 Bulletin 89/26**

71 Applicant: **Schoepe, Brian**  
**25 Websters Close Glinton**  
**Peterborough Cambs PE6 7LQ (GB)**

**Green, Derek William**  
**42 Lincoln Road Northborough**  
**Peterborough Cambs PE6 9BH (GB)**

72 Inventor: **Schoepe, Brian**  
**25 Websters Close Glinton**  
**Peterborough Cambs PE6 7LQ (GB)**

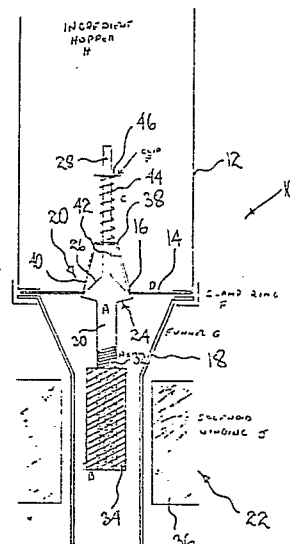
**Green, Derek William**  
**42 Lincoln Road Northborough**  
**Peterborough Cambs PE6 9BH (GB)**

74 Representative: **Archer, Philip Bruce et al**  
**Urquhart-Dykes & Lord Trinity Court Trinity Street**  
**Priestgate**  
**Peterborough Cambridgeshire PE1 1DA (GB)**

## 54 Method and apparatus for dispensing flowable materials.

57 A dispensing device (10) for a beverage component dispensing machine comprises a solenoid operated valve (20) in which the valve-open position of the valve is defined by an equilibrium condition of the solenoid (22) with its armature, acting against a return spring (44), whereby solenoid generated noise in the valve-open condition is reduced. The solenoid armature (34) is position-adjustable with respect to the valve member to vary the valve opening. The armature and the valve member are supported in the valve open condition in the manner of a pendulum through the return spring which is adjustably connected to the valve, whereby the valve-open equilibrium position of the armature is laterally as well as vertically balanced.

A = VALVE  
 B = ARMATURE  
 C = SPRING  
 D = VALVE SEAT & BRIDGE  
 E = CLIP  
 F = CLAMP LING  
 G = FUNNEL  
 H = HOPPER  
 I = SOUNDING  
 J = PARTIAL DISCHARGE TO FACT  
 K = 10% ONLY  
 L = 5% TO 10% ACT. SOUND  
 M = ILLUSTRATE THE USE





EP 88 30 5339

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-3 343 721 (PALEY) * Figure 2; column 2, line 50 - column 3, line 39 *	1,3,7,8	B 67 C 11/04 B 67 D 3/00
A	---	4	
D,A	GB-A-1 518 796 (BROWN SCHOEPE & PARR) ---		
A	FR-A-2 169 060 (CAFE-BAR LTD) -----		
			TECHNICAL FIELDS SEARCHED (Int. Cl.4)
			B 67 D B 67 C F 16 K
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 31-03-1989	Examiner DEUTSCH J.P.M.
<b>CATEGORY OF CITED DOCUMENTS</b> 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			