EP 0 723 807 A3



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(11) **EP 0 723 807 A3**

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3: 05.02.1997 Bulletin 1997/06

(51) Int. Cl.⁶: **B01F 13/00**, B65D 81/32

(43) Date of publication A2: 31.07.1996 Bulletin 1996/31

(21) Application number: 95810530.6

(22) Date of filing: 24.08.1995

(84) Designated Contracting States: CH DE FR GB IT LI Designated Extension States: LT LV SI

(30) Priority: 16.01.1995 EP 95810027

(71) Applicant: Keller, Wilhelm A. CH-6402 Merlischachen (CH)

(72) Inventors:

- Keller, Wilhelm A.
 CH-6402 Merlischachen (CH)
- Wilson, Richard J.
 Andover, MA 01810 (US)
- (74) Representative: AMMANN INGENIEURS-CONSEILS EN PROPRIETE INTELLECTUELLE SA BERNE Schwarztorstrasse 31 3001 Bern (CH)
- (54) Mixer and multiple component dispensing device assembly and method for the aligned connection of the mixer to the multiple component dispensing device
- (57)The mixer (83) of the mixer-cartridge assembly comprises a housing (84), an inlet section (85) having an individual inlet (87, 88) for each outlet (33, 34) of the cartridge (30) and a mixer element group (3). The mixer inlet section comprising separating means (3S) and the mixer element group (3) are arranged thus, that while sealingly connecting the mixer to the cartridge, the inlets (87, 88) of the mixer remain aligned with the corresponding and matching outlets of the cartridge as well as with the separating means (3S) and with the dividing element (3D) of the mixer element group (3) for optimizing the mixing of the components. For mixer attachment, the mixer housing comprises bayonet lugs (89) cooperating with bayonet prongs (15) on the cartridge, whereby the housing is rotated while the mixer inlet section, separating means and element group do not rotate in regard to the cartridge outlets, thus avoiding crosscontamination of the components at the cartridge/mixer interface and assuring continued separation well into the mixer up to the first dividing element (3D).

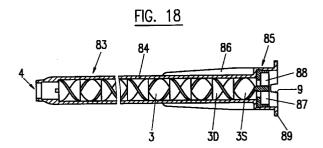
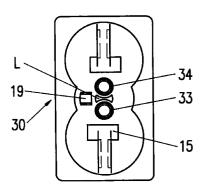


FIG. 19





EUROPEAN SEARCH REPORT

Application Number EP 95 81 0530

Category of relevant passages to claim APPLICATION X DE-U-90 15 118 (MUHLBAUER) 1,2,5,6, B01F13/00	DOCUMENTS CONSIDERED TO BE RELEVANT Citation of document with indication, where appropriate, Relevant				CLASSIFICATI	ON OF THE	
# the whole document * 10 DE-U-94 05 922 (PRESTELE)	ategory				APPLICATION		
DE-U-94 05 922 (PRESTELE) * claims; figures * EP-A-0 378 806 (ESPE) * claims; figures * EP-A-0 261 466 (KELLER WILHELM A) 30 March 1988 * the whole document * US-A-4 981 241 (KELLER WILHELM A) 1 January 1991 * column 4, line 13 - line 28; claims 1,7,8; figures 1,3,6 * DE-A-41 38 351 (BOSTIK) EP-A-0 150 738 (COLPO) US-A-3 767 085 (CANNON) EP-A-0 584 428 (KELLER) TECHNICAL SEARCHED B01F B65D	1	·	•	13,14	B01F13/00 B65D81/32		
# claims; figures * EP-A-0 378 806 (ESPE) * claims; figures * EP-A-0 261 466 (KELLER WILHELM A) 30 March 1988 * the whole document * US-A-4 981 241 (KELLER WILHELM A) 1 January 1991 * column 4, line 13 - line 28; claims 1,7,8; figures 1,3,6 * DE-A-41 38 351 (BOSTIK) EP-A-0 150 738 (COLPO) US-A-3 767 085 (CANNON) EP-A-0 584 428 (KELLER) TECHNICAL SEARCHED B01F B65D		* the whole documen	t * 	10			
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* the whole document *	(•	LER WILHELM A) 30 March	12			
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* column 4, line 13 - line 28; claims 1,7,8; figures 1,3,6 * DE-A-41 38 351 (BOSTIK) EP-A-0 150 738 (COLPO) US-A-3 767 085 (CANNON) EP-A-0 584 428 (KELLER) The present search report has been drawn up for all claims Place of search Date of completion of the search Examiner	,		LER WILHELM A) 1	12			
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EP-A-0 150 738 (COLPO) US-A-3 767 085 (CANNON) EP-A-0 584 428 (KELLER) The present search report has been drawn up for all claims Place of search SEARCHED B01F B65D Ey-A-0 584 428 (KELLER) Examiner	i	DE-A-41 38 351 (BOS	TIK)		TROUBLICAL	PIEL DC	
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The present search report has been drawn up for all claims Place of search Date of completion of the search Examiner	,	US-A-3 767 085 (CAN	NON)				
Place of search Date of completion of the search Examiner		EP-A-0 584 428 (KEL	LER)				
Place of search Date of completion of the search Examiner							
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THE HAGUE 12 December 1996 Voutsadopoul			•	•			
CATEGORY OF CITED DOCUMENTS T: theory or principle underlying the invention E: earlier patent document, but published on, or after the filing date Y: particularly relevant if combined with another document of the same category A: technological background 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 : par Y : par doc	CATEGORY OF CITED DOCUME ticularly relevant if taken alone ticularly relevant if combined with and cument of the same category	NTS T: theory or princi E: earlier patent de after the filing o other D: document cited L: document cited	ple underlying the ocument, but publiste in the application for other reasons	e invention lished on, or	3, K	