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(54) **Device for filling a cigarette tube with a metered amount of tobacco**

(57) Devices for filling a cigarette tube with tobacco are disclosed. In one aspect, the devices contain separate metering, compression, and injection mechanisms (30, 80, 150), which may be manual, partially automatic, or fully automatic. The metering mechanisms (30) move a proper amount of tobacco to a compression chamber (90), where the tobacco is thereafter compressed for eventual injection. In some embodiments, means are provided for assessing whether a sufficient quantity of tobacco has been metered into the compression chamber (90), and if not, further metering is accomplished prior to injection. In another aspect, the metering and compression mechanisms are combined into a single mechanism to the same effect.

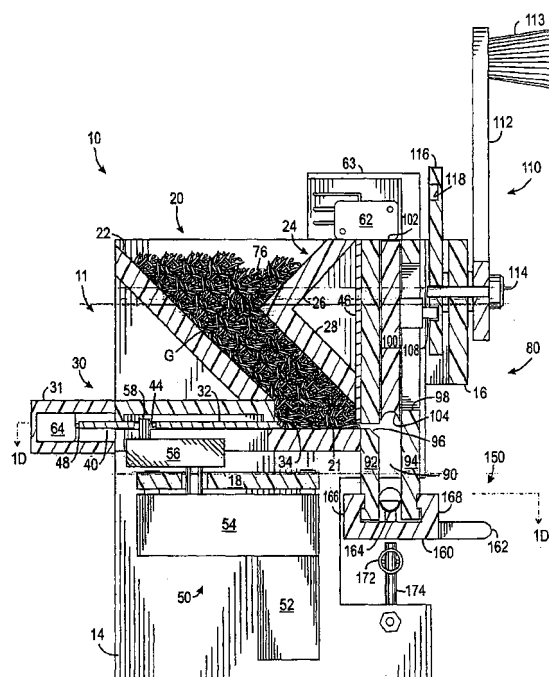


Figure 1C

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EUROPEAN SEARCH REPORT

Application Number
EP 05 01 1016

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	EP 0 144 060 A (HARTING ELEKTRONIK GMBH) 12 June 1985 (1985-06-12) * the whole document *	1,2, 28-31	INV. A24C5/42
X	GB 2 187 928 A (* HAUNI-WERKE KORBER & CO K G) 23 September 1987 (1987-09-23) * abstract; figures *	1,2	
X	US 2 551 095 A (CHAZE PAUL) 1 May 1951 (1951-05-01) * column 2, line 37 - column 3, line 49; figures *	1	
A	US 5 687 747 A (SCHRAMM ET AL) 18 November 1997 (1997-11-18) * column 4, line 50 - column 7, line 61; figures *	1	
A	DE 38 31 420 A1 (EFKA-WERKE FRITZ KIEHN GMBH, 7218 TROSSINGEN, DE) 8 March 1990 (1990-03-08) * the whole document *	1	TECHNICAL FIELDS SEARCHED (IPC)
A	FR 2 716 344 A (DECOUFLE SARL) 25 August 1995 (1995-08-25) * the whole document *	1	A24C
A	EP 1 138 214 A (BRITISH AMERICAN TOBACCO GMBH) 4 October 2001 (2001-10-04) * the whole document *	1	
A	EP 1 177 731 A (BRITISH AMERICAN TOBACCO GMBH) 6 February 2002 (2002-02-06) * the whole document *	1	
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 9 June 2006	Examiner MARZANO MONTEROSSO
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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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 05 01 1016

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
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09-06-2006

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 0144060	A	12-06-1985	DE 3343500 A1	13-06-1985
GB 2187928	A	23-09-1987	DE 3605052 A1	20-08-1987
US 2551095	A	01-05-1951	NONE	
US 5687747	A	18-11-1997	AU 704748 B2	06-05-1999
			AU 3176095 A	04-04-1996
			CA 2158823 A1	23-03-1996
			CN 1126563 A	17-07-1996
			DE 4433848 A1	28-03-1996
			EP 0702904 A2	27-03-1996
			JP 8173128 A	09-07-1996
DE 3831420	A1	08-03-1990	NONE	
FR 2716344	A	25-08-1995	NONE	
EP 1138214	A	04-10-2001	NONE	
EP 1177731	A	06-02-2002	AT 293897 T	15-05-2005
			DE 10033567 A1	31-01-2002