



(19)



(11)

EP 2 343 244 A3

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3:
28.11.2012 Bulletin 2012/48

(51) Int Cl.:
B65B 57/06 (2006.01) **B65B 21/24** (2006.01)
B65B 59/00 (2006.01) **B65B 21/06** (2006.01)

(43) Date of publication A2:
13.07.2011 Bulletin 2011/28

(21) Application number: 10197442.6

(22) Date of filing: 12.09.2006

(84) Designated Contracting States:
**AT BE BG CH CY CZ DE DK EE ES FI FR GB GR
HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI
SK TR**

(30) Priority: 12.09.2005 GB 0518563
12.09.2005 GB 0518555
13.09.2005 GB 0518565
23.01.2006 GB 0601312

(62) Document number(s) of the earlier application(s) in accordance with Art. 76 EPC:
06803525.2 / 1 924 502

(71) Applicant: **MeadWestvaco Packaging Systems, LLC**
Richmond, VA 23219-0501 (US)

(72) Inventors:

- **Martini, Pascal**
36330 Le Poinconnet (FR)
- **Dussart, Jean-Jacques**
36120 Clavières (FR)
- **Biraud, Kevin**
36120 Etrechet (FR)
- **Henot, Laurent**
36300 Le Blanc (FR)

(74) Representative: **Rule, John Eric et al**
Coulson and Associates
1st Floor Suite
5 Newbold Road
Rugby
Warwickshire CV21 2LQ (GB)

(54) Machine for packaging articles

(57) A packaging machine for loading articles into cartons to form packages, wherein the cartons and the articles in the packages may be of various different types and/or sizes, wherein the packaging machine comprises a carton erection device, a carton conveying mechanism, an article supply device for loading the cartons from at

least one end, a regulation device for regulating supply of the articles to the carton, an article grouping device, a control means, and a gluing mechanism for application of glue and for securing end panels of the carton, wherein all the components are readily adaptable to accommodate a change in package configuration.

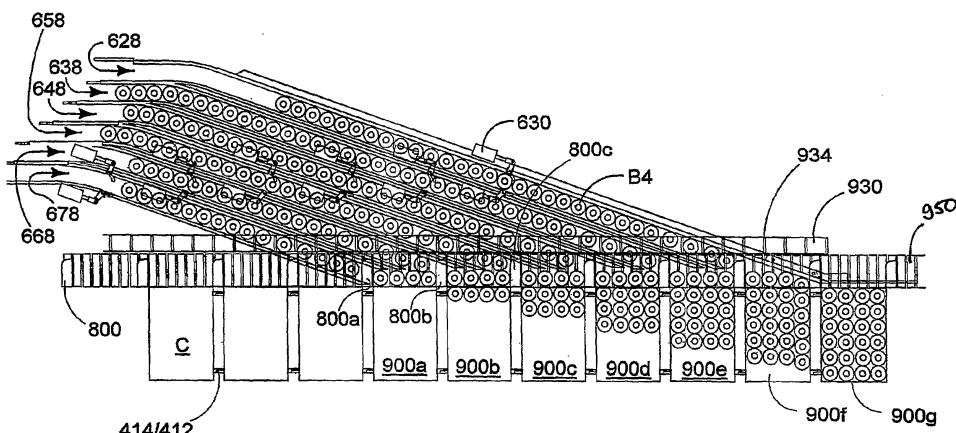


FIGURE 24



EUROPEAN SEARCH REPORT

 Application Number
 EP 10 19 7442

DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (IPC)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
X	US 5 711 137 A (MONCRIEF FRANK [US] ET AL) 27 January 1998 (1998-01-27)	1,12	INV. B65B57/06
A	* abstract * * column 6, line 45 - line 62 * * column 15, line 13 - line 14 * * figures 2-4 * * column 3, line 4 - column 4, line 15 * -----	3	B65B21/24 B65B59/00 B65B21/06
A	WO 97/25246 A1 (MEAD CORP [US]; CHALENDAR ERIC [FR]) 17 July 1997 (1997-07-17) * abstract * * figure 7 *	1,3,12	
A	US 4 578 054 A (HERRIN ROBERT M [US]) 25 March 1986 (1986-03-25) * abstract * * figures 1-6 * -----	1,3,12	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (IPC)
			B65B
3	Place of search Munich	Date of completion of the search 25 June 2012	Examiner Damiani, Alberto
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			



Application Number

EP 10 19 7442

CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing claims for which payment was due.

Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due 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 those claims for which no payment was due.

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:
1, 3, 12

The present supplementary 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 (Rule 164 (1) EPC).



LACK OF UNITY OF INVENTION
SHEET B

Application Number
EP 10 19 7442

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, 3, 12

A machine and a method for packaging articles wherein the carton erection device comprises a cam mechanism.

2. claims: 2, 13

A machine and a method for packaging articles into cartons with means for handling the case of absence of carton blank.

3. claim: 4

A machine and a method for packaging articles wherein the carton conveying mechanism with adjustable carton engaging lugs.

4. claims: 5, 6

A machine for packaging articles with special article supply means.

5. claims: 7, 14, 15

A machine and a method for packaging articles with a plurality of tributary channels.

6. claims: 8-11

A machine for packaging articles wherein the article grouping device comprises interchangeable lugs.

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

EP 10 19 7442

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.

25-06-2012

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
US 5711137	A	27-01-1998	AT AU AU BR CA CO DE DE EP ES FI JP JP NO NZ US US US US WO ZA	198067 T 684832 B2 7714794 A 9405518 A 2146444 A1 4370752 A1 69426411 D1 69426411 T2 0665797 A1 2152332 T3 951666 A 3649336 B2 H08502942 A 951651 A 273736 A 5546734 A 5706633 A 5711137 A 9506590 A1 9406758 A	15-12-2000 08-01-1998 22-03-1995 08-09-1999 09-03-1995 07-10-1996 18-01-2001 19-04-2001 09-08-1995 01-02-2001 07-04-1995 18-05-2005 02-04-1996 28-04-1995 29-01-1997 20-08-1996 13-01-1998 27-01-1998 09-03-1995 21-04-1995
WO 9725246	A1	17-07-1997	AT AU DE DE DK EP ES PT WO	251573 T 1532097 A 69725469 D1 69725469 T2 954471 T3 0954471 A1 2208867 T3 954471 E 9725246 A1	15-10-2003 01-08-1997 13-11-2003 06-05-2004 19-01-2004 10-11-1999 16-06-2004 30-01-2004 17-07-1997
US 4578054	A	25-03-1986	NONE		