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(54) **Apparatus for and method of making a package**

(57) The invention provides an apparatus for closing a package comprising a top-loaded carton having upper sealing panels (30, 32). The apparatus comprises a moveable holding means (114; 216a, 216b) for supporting and moving the package; at least two formers (110, 106a, 106b; 230a, 230b) and a cover flap (35) closing mechanism. The moveable holding means (114; 216a, 216b) being deployable to position the package between the at least two formers (110, 106a, 106b; 230a, 230b)

and the package and at least two formers being moveable relative to one another to manipulate the upper sealing panels (30, 32) from an open position wherein the upper sealing panels (30, 32) are spaced apart to a sealed position wherein the upper sealing panels (30, 32) are in a contacting position. The closing mechanism operable to secure the package in said sealed position thereby to complete the formation of the package and the holding means being of sufficient height to provide support to a flexible container held within the package.

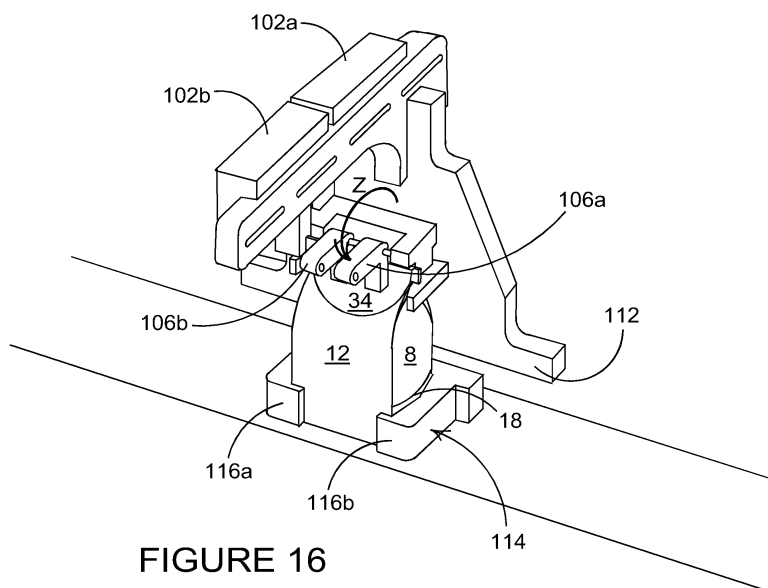


FIGURE 16

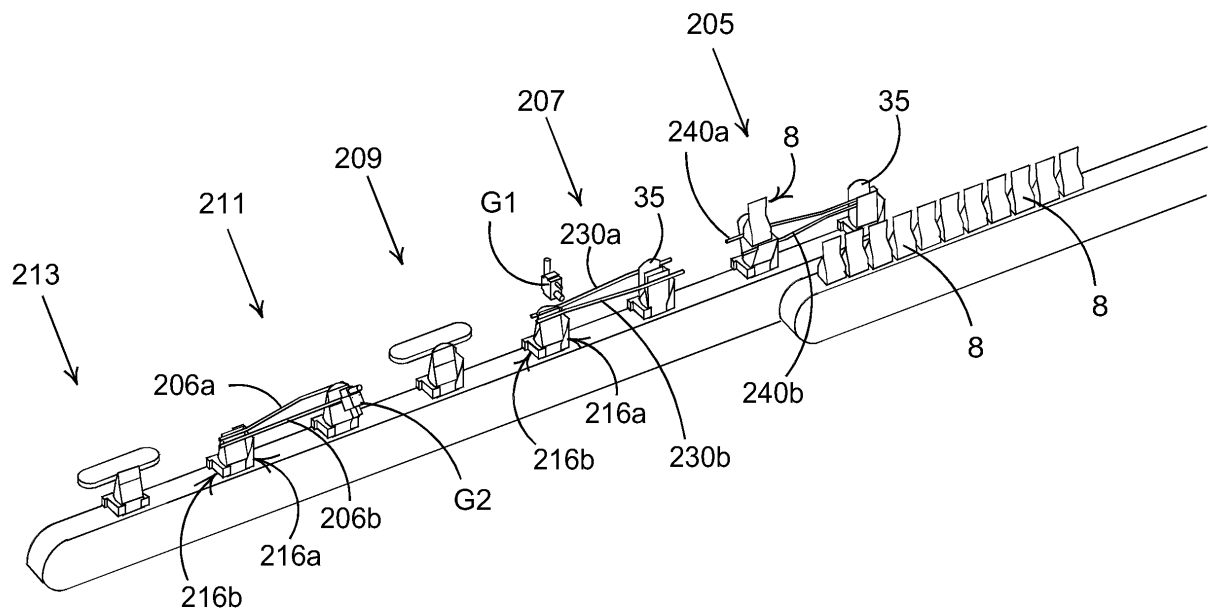


FIGURE 18



EUROPEAN SEARCH REPORT

Application Number
EP 09 16 5607

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	US 4 063 403 A (BERGSTEIN FRANK DAVID ET AL) 20 December 1977 (1977-12-20) * column 3, line 34 - column 4, line 42; figures 1-3 * * column 5, lines 28-36 * * column 6, lines 42-49 * * column 6, line 68 - column 7, line 4 * -----	1-3,5,9, 13-15	INV. B65D77/06 B65D5/60 B65B7/08 B65B7/18 B65B7/20
X	US 3 483 803 A (BACK LEONARD ET AL) 16 December 1969 (1969-12-16) * column 4, line 72 - column 5, line 23; figures 1-8 * * column 6, lines 6-15 * -----	1,4,9, 10,13-15	
X	GB 549 632 A (ROBERT MORRIS BERGSTEIN; FRANK DAVID BERGSTEIN) 30 November 1942 (1942-11-30) * page 2, lines 74-85; figures 1,2 * * page 3, lines 124-128 * * page 4, lines 8-13 * * page 6, lines 93-102 * -----	1,2,5,9, 10,13-15	
X	US 4 236 368 A (NERENBERG ROBERT W ET AL) 2 December 1980 (1980-12-02) * column 3, line 59 - column 6, line 7; figures 1-7 * -----	1,4,5,9, 10,13-15	B65B B65D
X	US 3 313 089 A (RUSTAD STANLEY C ET AL) 11 April 1967 (1967-04-11) * figures 1-21 * -----	1,3, 13-15	
A	US 6 216 943 B1 (RYAN MICHAEL [US]) 17 April 2001 (2001-04-17) * abstract; figures 1-6 * -----	1,14	
<p>4 The present search report has been drawn up for all claims</p>			
Place of search Munich		Date of completion of the search 23 October 2009	Examiner Garlati, Timea
<p>CATEGORY OF CITED DOCUMENTS</p> <p>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</p> <p>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</p>			

EPO FORM 1503 03.82 (P04C01)



Application Number

EP 09 16 5607

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:

see annex

☐ 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 09 16 5607

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, 2, 3, 4, 5, 9, 10, 13, 14 and 15

The two static guides, in combination with holding means that convey the package therethrough, defined in claims 5, 9 and 10 is the special technical feature of the first invention. The effect is that the packages can be processed continuously (see page 15, lines 14-15 and 18-20 of the description). Thus the first invention relates to the problem of increased speed.

2. claims: 1, 2, 3, 4, 6-8, 11-12, 13, 14 and 15

The two moveable formers, in combination with the stationary package, defined in claims 6-8 is the special technical feature of the second invention. The effect is that better alignment can be achieved (see page 15, lines 15-18 of the description). Thus the second invention relates to the problem of quality.

[Claims 11-12 relate to a specific embodiment of the closing mechanism, namely one comprising a pivotal portion. Such a closing mechanism has only been disclosed in combination with the stationary package of the second invention. Since there is no basis in the description (Article 84 EPC) for a pivotable flap closing mechanism in combination with stationary guides, claims 11 and 12 cannot depend on claims 5, 9 and 10 of the first invention.]

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

EP 09 16 5607

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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23-10-2009

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