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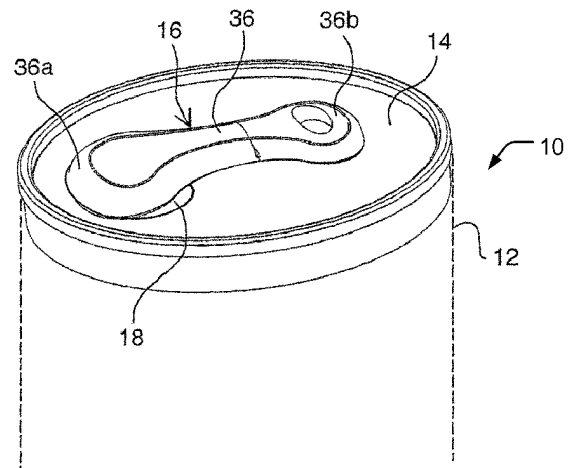
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(54) **OPENING ARRANGEMENT FOR PACKAGING CONTAINERS**

(57) The present invention concerns an opening arrangement (16) for packaging containers (10), wherein the packaging container (10) comprises an opening region (18) which is defined by a weakening arranged in the wall material of the packaging container, along which weakening the wall material of the packaging container is arranged to break so as to form an opening (18). The opening arrangement (16) comprises a plate comprising a first and a second part which are sealed to the packaging container. The first part is sealed to a first region of the wall material which at least partially contains the opening region. The second part is sealed to a second region which runs around the first region. The two parts are connected via a first hinge, and on application of force, the first part is arranged to pivot away from the second part in the direction away from the wall material towards the plate, which breaks the wall material along the weakening such that said opening (18) is created in the packaging container (10).



**Fig. 1**



## EUROPEAN SEARCH REPORT

Application Number  
EP 18 19 6034

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EPO FORM 1503 03.82 (P04C01)

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	EP 0 363 528 A1 (PROFOR AB [SE]) 18 April 1990 (1990-04-18) * abstract; figures * * claim 1 *	1-16	INV. B65D17/28
A	WO 2017/145133 A1 (MB MARK S R L [IT]) 31 August 2017 (2017-08-31) * abstract; figures 2,4 * * claims 1,4 *	1-16	
A	US 4 681 238 A (SANCHEZ RUBEN G [US]) 21 July 1987 (1987-07-21) * abstract; figures 2-4 * * claim 1 *	1-16	
A	US 5 147 591 A (YOSHIDA YOSHIKI [JP]) 15 September 1992 (1992-09-15) * abstract * * claims 1,3,6 *	1-16	
			TECHNICAL FIELDS SEARCHED (IPC)
			B65D
<del>The present search report has been drawn up for all claims</del>			
Place of search The Hague		Date of completion of the search 17 December 2018	Examiner Serrano Galarraga, J
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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**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:

1-16

☐ 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

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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: 1-16

Opening arrangement comprising a hinged-lever opening element and a weakened wall.

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2. claims: 17-30

Opening arrangement by comprising a cutting thread element.

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

EP 18 19 6034

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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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17-12-2018

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 0363528 A1	18-04-1990	AU 608905 B2	18-04-1991
		EP 0363528 A1	18-04-1990
		SE 468805 B	22-03-1993
		US 4913294 A	03-04-1990
-----			
WO 2017145133 A1	31-08-2017	CA 3015748 A1	31-08-2017
		EP 3419905 A1	02-01-2019
		US 2019061996 A1	28-02-2019
		WO 2017145133 A1	31-08-2017
-----			
US 4681238 A	21-07-1987	NONE	
-----			
US 5147591 A	15-09-1992	DE 68901260 D1	21-05-1992
		EP 0392078 A2	17-10-1990
		US 5054642 A	08-10-1991
		US 5147591 A	15-09-1992
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