

(19)



(11)

EP 4 474 304 A3

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3:
05.02.2025 Bulletin 2025/06

(51) International Patent Classification (IPC):
B65D 17/00 ^(2006.01) **B65D 17/353** ^(2006.01)
B65D 17/28 ^(2006.01)

(43) Date of publication A2:
11.12.2024 Bulletin 2024/50

(52) Cooperative Patent Classification (CPC):
B65D 17/02; B65D 17/353; B65D 17/4012;
B65D 2517/0014; B65D 2517/0073

(21) Application number: **24180497.0**

(22) Date of filing: **06.06.2024**

(84) Designated Contracting States:
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB
GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL
NO PL PT RO RS SE SI SK SM TR
Designated Extension States:
BA
Designated Validation States:
GE KH MA MD TN

(72) Inventors:
• **Gogola, Michael R.**
Chicago, Illinois, 60631 (US)
• **Villasin, Rex**
Chicago, Illinois, 60631 (US)

(74) Representative: **Samson & Partner Patentanwälte**
mbB
Widenmayerstraße 6
80538 München (DE)

(30) Priority: **07.06.2023 US 202363506761 P**

(71) Applicant: **Ardagh Metal Packaging USA Corp.**
Chicago, IL60631 (US)

(54) CAN ENDS FOR BEVERAGE CONTAINERS AND RELATED METHODS

(57) Can ends for beverage containers and related methods are disclosed. An example can end includes a center panel, the center panel having a first area, and a

pour panel formed on the center panel, the pour panel to define a pour opening having a second area, where a first area-to-second area ratio is approximately 0.22 inches.

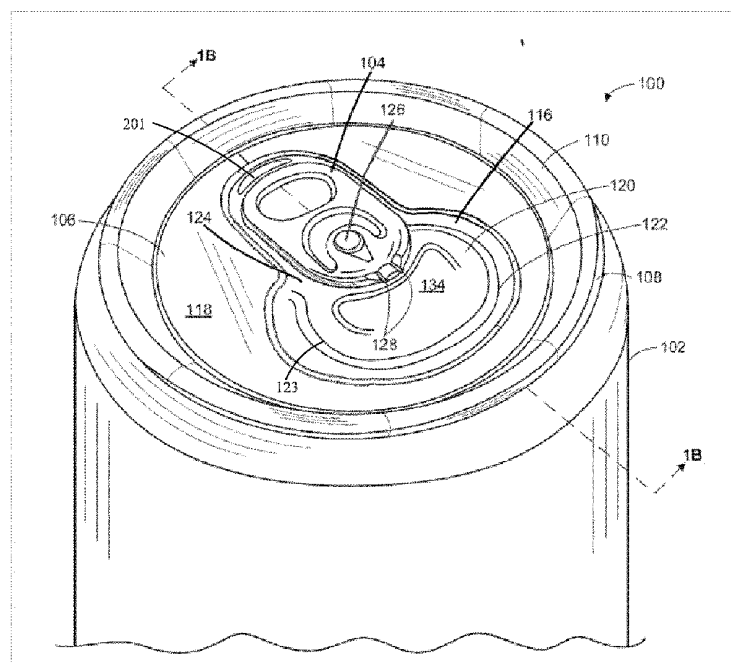


FIG. 1A



EUROPEAN SEARCH REPORT

Application Number

EP 24 18 0497

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 5 711 448 A (CLARKE III MILTON W [US]) 27 January 1998 (1998-01-27)	1,3-5, 9-12	INV. B65D17/00
Y	* abstract; figures 1-3 *	6-8,	B65D17/353
A	* column 3, line 28 - line 31 *	13-20	B65D17/28
A	* column 7, line 11 *	2	
X	US 2013/037542 A1 (CROTHERS THOMAS GLENN [US]) 14 February 2013 (2013-02-14)	1,2,4,5, 9-12	
A	* abstract; figures 1,2 *	3,6-8	
Y	US 2019/112096 A1 (GOGOLA MICHAEL R [US] ET AL) 18 April 2019 (2019-04-18)	6-8, 13-20	
	* abstract; figures 1a,2a,6a *		
			TECHNICAL FIELDS SEARCHED (IPC)
			B65D
The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
The Hague		16 December 2024	Tempels, Marco
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 24 18 0497

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:

☐ 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 24 18 0497

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: 1-8

Directed to a can end comprising a center panel having a diameter between 1.88 and 1.92 inches, a pour panel with a length-to-width ratio between 1.40 and 1.45, and a pour area between 0.64 and 0.67 square inches.

2. claims: 9-20

Directed to a can end having a center panel to pour panel ratio between 0.22 and 0.23.

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

EP 24 18 0497

5

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.

16-12-2024

10

15

20

25

30

35

40

45

50

55

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
US 5711448	A	27-01-1998	AU	705788 B2		03-06-1999
			BR	9504036 A		24-09-1996
			CA	2158379 A1		16-03-1996
			CN	1125679 A		03-07-1996
			EP	0704382 A2		03-04-1996
			JP	2957930 B2		06-10-1999
			JP	H08268429 A		15-10-1996
			JP	H11255236 A		21-09-1999
			PE	6796 A1		10-04-1996
			US	5711448 A		27-01-1998

US 2013037542	A1	14-02-2013	CN	102951343 A		06-03-2013
			EP	2557051 A1		13-02-2013
			US	2013037542 A1		14-02-2013

US 2019112096	A1	18-04-2019	BR	102018071127 A2		04-06-2019
			US	D893298 S		18-08-2020
			US	D894000 S		25-08-2020
			US	2019112096 A1		18-04-2019

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82