

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
5 July 2007 (05.07.2007)

PCT

(10) International Publication Number
WO 2007/076111 A3

- (51) International Patent Classification:
B65G 47/24 (2006.01) B65G 47/252 (2006.01)
- (21) International Application Number:
PCT/US2006/049228
- (22) International Filing Date:
22 December 2006 (22.12.2006)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
60/753,389 23 December 2005 (23.12.2005) US
- (71) Applicant (for all designated States except US): THE COCA-COLA COMPANY [US/US]; Patents, One Coca-cola Plaza, NW, Atlanta, Georgia 30313 (US).
- (72) Inventors: MATTOS, Nilton, Antonio, Moreira; Rua Pres. Nereu Ramos 211, Cob. 02, Rio De Janeiro, RJ (BR). SIMOES, Alexandre, Guedes; Rua Eduardo Guinle 55, Ap. 902 Bl. 2, Rio De Janeiro, RJ (BR). DA SILVA, Paulo, Roberto; Rua Thomas Nogueira Gaia 1960, Ap. 12, Ribeirao Preto (BR).
- (74) Agent: PAPPAS, Peter, G.; SUTHERLAND ASBILL & BRENNAN LLP, 999 Peachtree Street, NE, Atlanta, Georgia 30309-3996 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

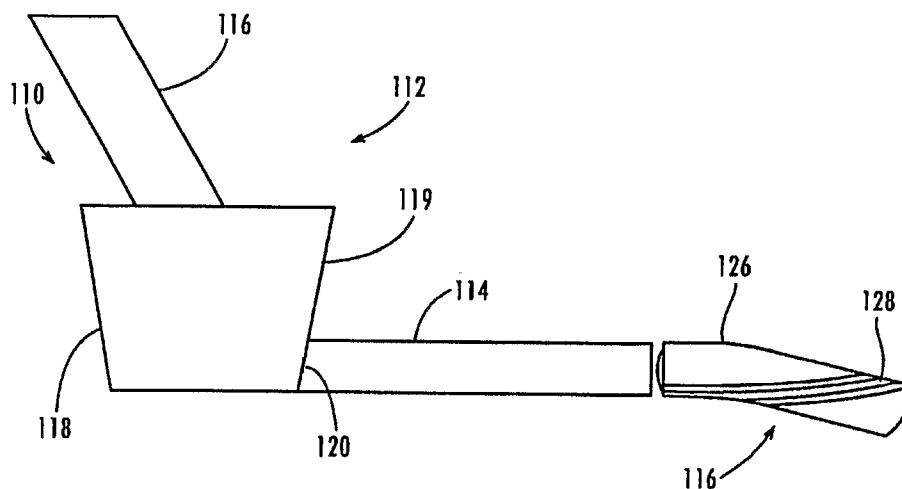
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— with international search report
— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:
16 August 2007

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: APPARATUS AND METHOD FOR ORIENTING SPHEROIDAL CONTAINERS AND PACKAGING BEVERAGES IN SPHEROIDAL CONTAINERS



(57) Abstract: An apparatus for orienting a spheroidal container (10) comprising a spheroidal body (12) and a neck portion (14) and the method for using the same, the apparatus comprising a container feeder (112), a channel (114) having a longitudinal gap (115) and arranged for receiving the spheroidal containers from the container feeder and operative to orient the spheroidal containers in an upside down orientation with the body (12) supported by the channel (114) and the neck portion (14) extending below the spheroidal body and into the longitudinal gap (115); and a twister (116) for receiving the spheroidal containers in the upside down orientation and inverting the spheroidal containers. An apparatus for packaging a beverage in a spheroidal container and the method for using the same, comprising the apparatus for orienting a spherical container and further comprising a filler for receiving the spheroidal containers and filling the spheroidal containers with the beverage, and a sealer for sealing the beverage in the spheroidal containers.

WO 2007/076111 A3

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2006/049228

A. CLASSIFICATION OF SUBJECT MATTER
INV. B65G47/24 B65G47/252

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
B65G

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 3 224 552 A (FRANCIS MCNEILL) 21 December 1965 (1965-12-21) column 1, line 37 - column 3, line 23 figures 1-4	1-4, 8, 9, 11-15, 18-20
Y	EP 0 390 256 A (UITERT SPEC MASCHF VAN [NL]) 3 October 1990 (1990-10-03) column 1, line 1 - column 3, line 23 figures 1-3	1-4, 8, 9, 11-15, 18-20
A	US 3 297 130 A (EUGENE GRECK) 10 January 1967 (1967-01-10) the whole document	1, 3-8
	----- -/--	

Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *Z* document member of the same patent family

Date of the actual completion of the international search

13 June 2007

Date of mailing of the international search report

20/06/2007

Name and mailing address of the ISA/

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

PAPATHEOFRASTOU, M

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2006/049228

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	GB 1 533 581 A (HILL ENG CO LTD T) 29 November 1978 (1978-11-29) the whole document -----	1
A	EP 0 134 608 A (TETRA PAK INT [SE]) 20 March 1985 (1985-03-20) the whole document -----	1

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2006/049228

Patent document cited in search report	A	Publication date	Patent family member(s)	Publication date
US 3224552	A	21-12-1965	NONE	
EP 0390256	A	03-10-1990	NL 8900769 A	16-10-1990
US 3297130	A	10-01-1967	AT 266702 B	25-11-1968
			BE 658185 A	30-04-1965
			CH 433917 A	15-04-1967
			DE 1253152 B	26-10-1967
			DK 126492 B	23-07-1973
			FI 48822 B	30-09-1974
			MY 12867 A	31-12-1967
			NL 6500364 A	14-07-1965
GB 1533581	A	29-11-1978	NONE	
EP 0134608	A	20-03-1985	SE 8304629 A	27-02-1985