(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
17 November 2005 (17.11.2005)

PCT

(10) International Publication Number
WO 2005/108278 A3

(51) International Patent Classification:
B67C 7/00 (2006.01) *B67B 3/00* (2006.01)
A61L 2/08 (2006.01)

(21) International Application Number:
PCT/IB2005/001222

(22) International Filing Date: 5 May 2005 (05.05.2005)

(25) Filing Language: Italian

(26) Publication Language: English

(30) Priority Data:
MO2004A000111 7 May 2004 (07.05.2004) IT

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(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, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

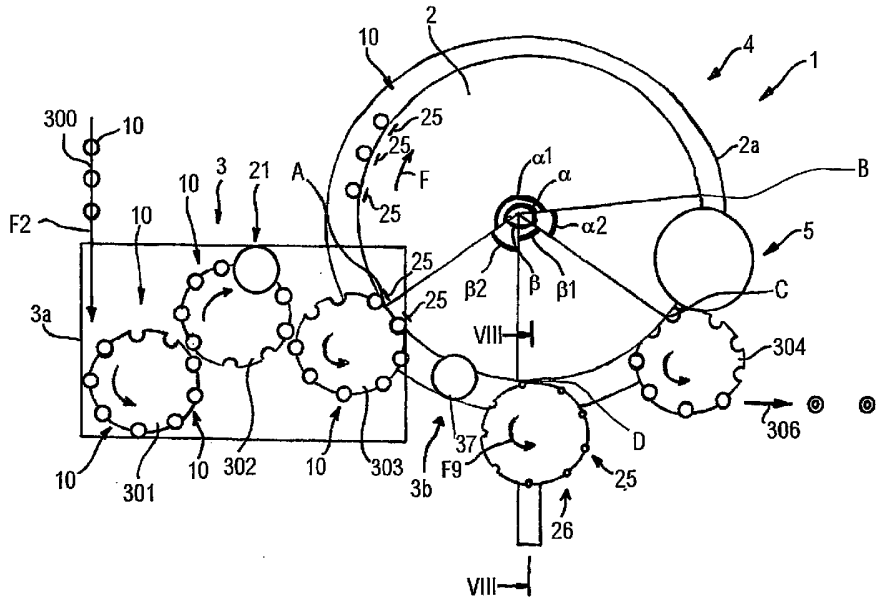
(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, 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).

Declarations under Rule 4.17:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations 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, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM,*

[Continued on next page]

(54) **Title:** APPARATUS AND METHOD FOR STERILISING BOTTLES AND/OR CAPS AND FILLING THEM



(57) **Abstract:** An apparatus comprises rotating conveying means (301, 302, 303, 2; 301, 160, 303, 2) for conveying along a curved path components (10, 25) of packaging units comprising containers (10) and container closures (25), filling means (30) for filling with a product said containers (10) on said rotating conveying means (301, 302, 303, 2; 301, 160, 303, 2), sterilising means (21, 37) for sterilising at least part of said components (10, 25) mounted along said path and comprising irradiating means arranged to emit radiation.

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PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations*

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:
2 March 2006

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.

INTERNATIONAL SEARCH REPORT

Inter ıal Application No
PCT/IB2005/001222

A. CLASSIFICATION OF SUBJECT MATTER
B67C7/00 A61L2/08 B67B3/00

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)
B67C A61L B65B B67B

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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y	DE 195 20 925 A1 (KHS MASCHINEN- UND ANLAGENBAU AG, 44143 DORTMUND, DE) 12 December 1996 (1996-12-12) column 5, line 18 - line 46; figure	1-6,13, 30,31 7,9,10, 12,14, 20-24
X Y	WO 98/42385 A (ELECTRON PROCESSING SYSTEMS, INC; NABLO, SAMUEL, V; CLEGHORN, DENISE,) 1 October 1998 (1998-10-01) page 3, line 22 - line 25 page 7, line 30 - page 8, line 5; claim 1; figures 2,3	25,26 7,10,12, 14
Y	DE 199 09 826 A1 (KRONES AG) 7 September 2000 (2000-09-07) column 3, line 40 - line 63	9,22-24

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[X] Further documents are listed in the continuation of box C.

[X] Patent family members are listed in 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

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"P" document published prior to the international filing date but later than the priority date claimed

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"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.

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
28 November 2005	20. 12. 2005

Name and mailing address of the ISA	Authorized officer
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	Wartenhorst, F

Form PCT/ISA/210 (second sheet) (January 2004)

INTERNATIONAL SEARCH REPORT

Ir ıtional application No.
PCT/IB2005/001222

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. [X] As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest.

[X] No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-16,22-24,30,31

Apparatus for conveying containers and closures along a curved path therewith passing filling means and sterilising means mounted in a particular zone of the curved path.

1.1. claims: 1-16

Apparatus for conveying containers and closures along a curved path therewith passing filling means and sterilising means mounted in a particular zone of the curved path.

1.2. claims: 22-24

Method for conveying containers past sterilising means, and filling and applying closures on a rotating carousel.

1.3. claims: 30,31

Apparatus for conveying closures along irradiation means to applicator means.

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2. claims: 17-21

Apparatus comprising filling means and specific closure applicator means on one rotating carousel.

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3. claims: 25-29

Apparatus for conveying components of packaging units to a sterile zone, and comprising irradiation means and orientation means.

INTERNATIONAL SEARCH REPORT

Inter al Application No
PCT/IB2005/001222

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y	DE 40 39 434 A1 (BRUDER, HARALD R., 8202 BAD AIBLING, DE) 17 June 1992 (1992-06-17) column 3, line 37 - column 4, line 51; figures 1-13	17,18 20,21
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INTERNATIONAL SEARCH REPORT

ırmation on patent family members

Inter al Application No
PCT/IB2005/001222

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