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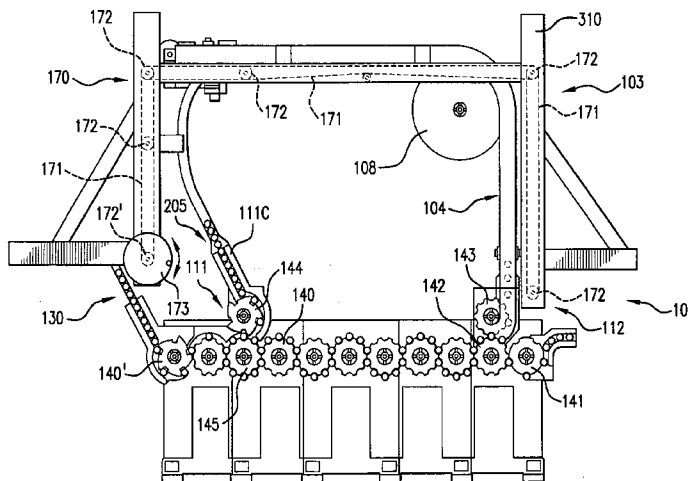
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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD AND APPARATUS FOR CONTAINER RECIRCULATION



(57) Abstract: A machine arrangement (102) that operates on a plurality of articles (50), such as bottles, includes a plurality of machines arranged in a machine arrangement (102). At least one of the machines includes an apparatus configured to modify the articles (50) by at least one of moving, holding, manipulating and shaping the articles as they pass from an article infeed (130) to an article discharge (146) of the machine arrangement (102). A recirculation mechanism (103) moves articles (50) from a downstream machine after a first pass (or run) and recirculates the articles (50) back to an upstream machine in a second (recirculation) pass (or run) so that the articles (50), which are recirculated through the second pass are again subjected to a different machine modifying operation in at least one machine that the articles (50) have previously passed in the first pass. The articles (50) move continuously through the first and second passes while being subjected to at least one machine modifying operation.

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# INTERNATIONAL SEARCH REPORT

International application No  
PCT/US2007/007958

<b>A. CLASSIFICATION OF SUBJECT MATTER</b> INV. B21D51/26		
According to International Patent Classification (IPC) or to both national classification and IPC		
<b>B. FIELDS SEARCHED</b>		
Minimum documentation searched (classification system followed by classification symbols) B21D 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		
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	JP 2002 102968 A (MITSUBISHI MATERIALS CORP) 9 April 2002 (2002-04-09) paragraphs [0009], [0021]; figures 1,2 -----	1-13, 17-27
Y	WO 94/12412 A (STAR CONVEYOR AB [SE]; RAGNARSSON LARS [SE]; JOHANSSON LEIF [SE]) 9 June 1994 (1994-06-09) claim 1; figure 2B -----	1-19, 22-26
Y	US 2005/193796 A1 (HEIBERGER JOSEPH M [US] ET AL) 8 September 2005 (2005-09-08) pages 4,5, paragraph 65-77; figure 4 -----	14-16, 20,21,27
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <span style="margin-left: 200px;"><input checked="" type="checkbox"/> See patent family annex.</span>		
* 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	** 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. *&* document member of the same patent family	
Date of the actual completion of the international search  <p style="text-align: center; font-weight: bold;">11 September 2007</p>	Date of mailing of the international search report  <p style="text-align: center; font-weight: bold;">11/10/2007</p>	
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  <p style="text-align: center; font-weight: bold;">Pothmann, Johannes</p>	

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US2007/007958

## 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.  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.
- 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: 1-19

track width adjusting of the article guide track  
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2. claims: 20-27

lubrification of the articles  
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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/US2007/007958
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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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WO 9412412 A	09-06-1994	EP 0670809 A1 SE 502578 C2 SE 9203618 A	13-09-1995 13-11-1995 03-06-1994
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