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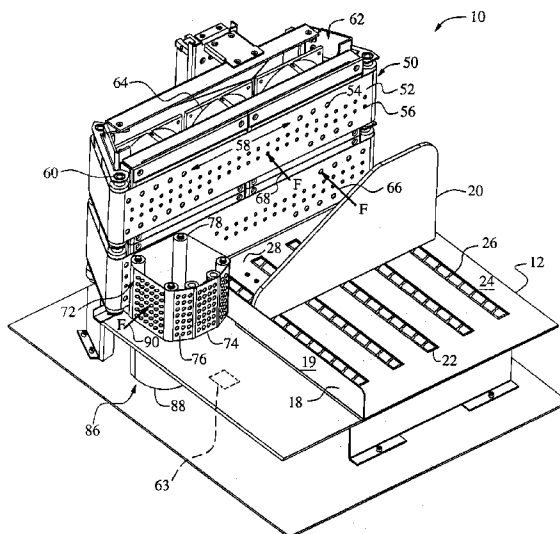
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[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR JOGGING AND FEEDING SORTABLE ARTICLES



(57) **Abstract:** An apparatus (10) includes a vibrating jogging tray with rotatable (22) rods having longitudinal edges. The apparatus can further include a transfer assembly (50) comprising a transfer belt (52) and a first vacuum system (62) positioned opposite to a separation assembly (72) comprising a separation belt (74) and, optionally, a second vacuum system (86). In operation, the rods rotate a plurality of articles toward the transfer assembly. The first vacuum system can draw a first article onto the transfer belt and transports it to a processing station. If a second article overlaps the first article on the transfer belt, the second vacuum system can draw the second article off of the first article and onto the separation belt. If the first article traveling on the transfer assembly is thicker than a distance between the transfer belt and the separation belt, a retractable roller can retract the separation belt and/or the transfer belt to increase the distance therebetween.

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INTERNATIONAL SEARCH REPORT

International application No
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A. CLASSIFICATION OF SUBJECT MATTER
INV. B65H1/02 B65H3/60 B65H3/12 B65H3/46

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)
B65H

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.
A	US 3 995 851 A (CASPER MARK S) 7 December 1976 (1976-12-07) column 3, line 40 - column 4, line 13; figures -----	1
A	US 3 647 203 A (HART JOHN RANDLE DE) 7 March 1972 (1972-03-07) the whole document -----	1
A	US 4 884 795 A (VANDER SYDE GARY [US]) 5 December 1989 (1989-12-05) the whole document -----	1
A	US 5 246 223 A (RICCIARDI MARIO [US] ET AL) 21 September 1993 (1993-09-21) the whole document -----	1
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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
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- *O* document referring to an oral disclosure, use, exhibition or other means
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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.
- *Z* document member of the same patent family

Date of the actual completion of the international search

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International application No
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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4 432 540 A (AKERS ROY [US] ET AL) 21 February 1984 (1984-02-21) the whole document -----	1
A	EP 0 771 748 A2 (LICENTIA GMBH [DE] SIEMENS AG [DE]) 7 May 1997 (1997-05-07) the whole document -----	1

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2007/071767

Box No. 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 No. 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 allsearchable claims.

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

3. As only some of the required additional search fees were timely paid by the applicant, this international search reportcovers 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.:

1-7

Remark on Protest

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- 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: 1-7

Apparatus for jogging and feeding sortable articles

2. claims: 8-20

Apparatus and method for jogging and feeding sortable articles involving transfer and separation assembly

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/US2007/071767

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 3995851	A	07-12-1976	NONE
US 3647203	A	07-03-1972	NONE
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