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(54) Title: FLOW DIVIDER FOR SORTING APPARATUS

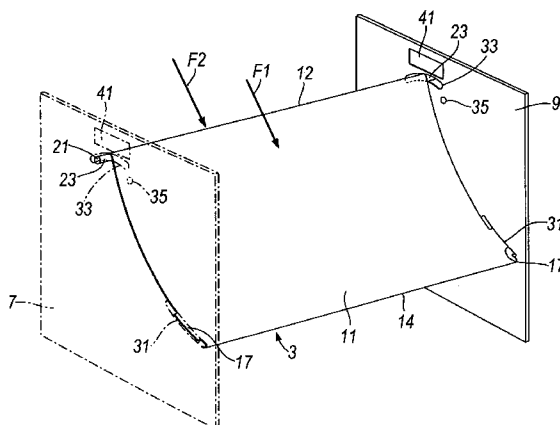


Fig. 1

(57) Abstract: A flow divider assembly for a sorting apparatus, comprising a flow divider (3), which is operative to separate first and second product streams or flows (F1, F2), wherein the flow divider (3) comprises a flexible separator element (11), which has an upper edge (12) which presents a dividing edge to the product flows and the position of which is adjustable by flexing the separator element (3).

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**INTERNATIONAL SEARCH REPORT**

International application No

PCT/GB2009/002814

**A. CLASSIFICATION OF SUBJECT MATTER**  
 INV. B07B7/04  
 ADD.

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)

B07B B07C

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.
X	FR 2 698 020 A1 (SISSON LEHMANN [FR]) 20 May 1994 (1994-05-20)  page 5, lines 1-11 page 7, lines 13-23; figure 5	1-4, 6, 8, 15, 19, 24, 25, 29, 30
X	US 4 405 451 A (ROMAN WALTER C [US]) 20 September 1983 (1983-09-20) column 7, lines 54-66	24-26, 29
A	DE 647 143 C (ERWIN KRAMER DR ING) 29 June 1937 (1937-06-29) page 2, lines 14-55	1, 29, 30
A	DE 25 35 881 A1 (KRAUSS MAFFEI AG) 24 February 1977 (1977-02-24) page 6, paragraph 2 - page 7, paragraph 2	1, 29, 30
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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
- "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.
- "&" document member of the same patent family

Date of the actual completion of the international search

6 August 2010

Date of mailing of the international search report

17/08/2010

Name and mailing address of the ISA/

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## INTERNATIONAL SEARCH REPORT

International application No  
PCT/GB2009/002814

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 3 447 678 A (HENRY DONALD L) 3 June 1969 (1969-06-03) column 3, lines 35-65 -----	1, 29, 30
A	US 5 685 434 A (ACKERMAN KYLE D [US]) 11 November 1997 (1997-11-11) column 3, lines 16-25 -----	24-29
A	US 5 607 061 A (FELDEN RICHARD W [US]) 4 March 1997 (1997-03-04) column 3, lines 9-16 -----	27-29

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/GB2009/002814

## 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.: 31, 32  
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:  
see FURTHER INFORMATION sheet PCT/ISA/210
  
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 all searchable 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 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 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**

Continuation of Box II.2

Claims Nos.: 31, 32

Present claim 31,32 refer to the description and the drawings and relate therefore to an extremely large number of possible flow divider assemblies and sorting apparatuses. There are so many possibilities of combinations of features that the claims 31, 32 are not in compliance with the provisions of clarity and conciseness of Article 6 PCT, as it is particularly burdensome for a skilled person to establish the subject-matter for which protection is sought.

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.2), should the problems which led to the Article 17(2) declaration be overcome.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

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

1. claims: 1-23, 30(completely); 29(partially)

A flexible flow divider, its incorporation in a sorting apparatus and its use

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2. claims: 24-28(completely); 29(partially)

A flow divider assembly having end supports including a transparent window and its incorporation in a sorting apparatus

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/GB2009/002814

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
FR 2698020	A1	20-05-1994	NONE
US 4405451	A	20-09-1983	NONE
DE 647143	C	29-06-1937	NONE
DE 2535881	A1	24-02-1977	NONE
US 3447678	A	03-06-1969	NONE
US 5685434	A	11-11-1997	NONE
US 5607061	A	04-03-1997	NONE