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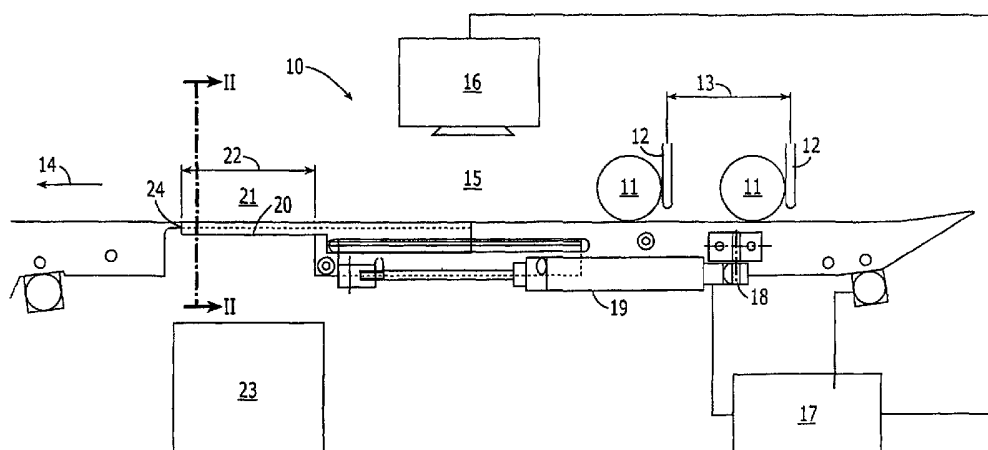
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(54) Title: A SLIDING GATE SORTING APPARTUS AND METHOD FOR SORTING USING A SLIDING GATE



(57) Abstract: A system for sorting articles includes a conveyor transporting the articles in conveying zones. An identifier directed at an identification zone on the conveyor identifies an article bearing a particular characteristic. A sliding gate coupled to the conveyor at a removal zone on the conveyor downstream from the identification zone is arranged below the articles and controlled by the identifier to open when the article bearing the characteristic passes the removal zone. The sliding gate opens parallel to the conveyor and either in the conveyor direction or the direction opposing the conveyor direction. The sliding gate provides an opening of the same length as the conveying zone. A device for sorting articles includes a sliding gate on the conveyor at a removal zone. The sliding gate is arranged below the articles and controlled by an identifier to open when an article bearing a characteristic passes the removal zone. The identifier is directed at an identification zone on the conveyor and is able to identify the article bearing a characteristic at the identification zone. A method for sorting articles includes conveying the articles and identifying an article bearing a characteristic at an identification zone.

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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.

INTERNATIONAL SEARCH REPORT

International application No.

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| A. CLASSIFICATION OF SUBJECT MATTER | | |
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| 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) U.S. : 209/510, 511, 512, 513, 680, 682, 576, 577, 578, 579, 580, 582, 707, 656, 657 | | |
| 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 practicable, search terms used) Please See Continuation Sheet | | |
| C. DOCUMENTS CONSIDERED TO BE RELEVANT | | |
| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
| X | US 4,775,051 A (VAN DER SCHOOT) 04 October 1988, see entire document. | 1-11,14-16,22-26,28,29,33-41,44-46,50-52 |
| A | US 5,030,001 A (VANDE VIS) 09 July 1991 | |
| A | US 4,068,882 A (VAN DER SCHOOT) 17 January 1978 | |
| <input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex. | | |
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Continuation of B. FIELDS SEARCHED Item 3:

USPAT, US-PGPUB, EPO, JPO

egg, eggshell, gate door sliding, slidable, produce, fruit, apple, panel, floor, portion, near2