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(71) Applicant: **Canon Kabushiki Kaisha**  
**Tokyo, Tokyo 146-8501 (JP)**

(72) Inventors:  
 • **ENDO, Keisuke**  
**Tokyo,, Tokyo 146-8501 (JP)**  
 • **HAGIWARA, Hiroshi**  
**Tokyo,, Tokyo 146-8501 (JP)**

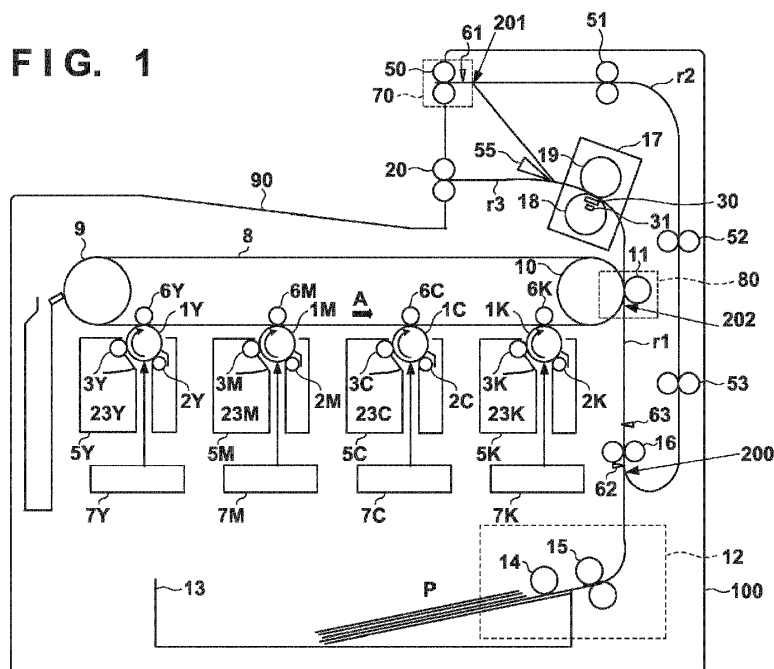
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(74) Representative: **TBK**  
**Bavariaring 4-6**  
**80336 München (DE)**

(54) **IMAGE FORMING APPARATUS ABLE TO FORM IMAGES ON BOTH SIDES OF SHEET**

(57) An image forming unit (5Y-5K) forms an image on a sheet. A reverse unit (70) pulls in the sheet from a main conveyance path (r1) and reverses a conveyance direction of the sheet to feed the sheet to a sub-conveyance path (r2). A control unit (101) causes a conveyance unit (51, 52, 53) to convey a first sheet that is waiting to

the main conveyance path after a trailing end of a second sheet that has been fed from a feeding unit (12) and follows the first sheet has passed through a merging point (200), and moves a trailing end of the first sheet downstream of a branch point (201) before the second sheet reaches the branch point.





EUROPEAN SEARCH REPORT

Application Number  
EP 17 20 1519

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| DOCUMENTS CONSIDERED TO BE RELEVANT  |  |   |   |                                 |
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| Category   | Citation of document with indication, where appropriate, of relevant passages                                | Relevant to claim                                       | CLASSIFICATION OF THE APPLICATION (IPC)     |                                 |
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| The present search report has been drawn up for all claims   |  |   |   |                                 |
| Place of search<br><b>Munich</b>   |  | Date of completion of the search<br><b>18 July 2018</b> | Examiner<br><b>Scarpa, Giuseppe</b>         |                                 |
| CATEGORY OF CITED DOCUMENTS<br>X : particularly relevant if taken alone<br>Y : particularly relevant if combined with another document of the same category<br>A : technological background<br>O : non-written disclosure<br>P : intermediate document<br>T : theory or principle underlying the invention<br>E : earlier patent document, but published on, or after the filing date<br>D : document cited in the application<br>L : document cited for other reasons<br>& : member of the same patent family, corresponding document |  |   |   |                                 |

EPO FORM 1503 03/02 (P04C01)



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**CLAIMS INCURRING FEES**

The present European patent application comprised at the time of filing claims for which payment was due.

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Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):

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No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.

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**LACK OF UNITY OF INVENTION**

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

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see sheet B

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All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

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As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

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Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

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None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

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The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).

**LACK OF UNITY OF INVENTION  
SHEET B**

Application Number

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The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

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## 1. claims: 1-6(completely); 14(partially)

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control unit for duplex printing configured to enable fast duplex printing by circulating 2 or more sheets in a duplex path avoiding collision that minimize duplex path length (thus minimizing overall-size of a corresponding image forming apparatus)  
relate to the problem of increasing duplex productivity  
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## 2. claims: 7-13, 15(completely); 14(partially)

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control adjustment of feeding speed of conveyance/registration rollers vs. image forming speed  
relate to the problem of synchronization of sheet feeding time vs. image forming means time  
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ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.

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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

18-07-2018

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EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82