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(54) **METHOD FOR QUALITY INSPECTION OF NOZZLES OF AN INK-JET PRINT MODULE**

(57) A method for quality inspection of nozzles of an ink-jet print module. The method comprises: forwarding a paperboard web continuously at a substantially constant speed in a machine direction; printing a decor layer on the paperboard web using the print module; and printing a test pattern comprising a test element on the paperboard web by activating a plurality of the nozzles, which are intended to be inspected. The test pattern has a fixed position in relation to the decor layer, and is indicative of the quality of each nozzle of the plurality of nozzles.

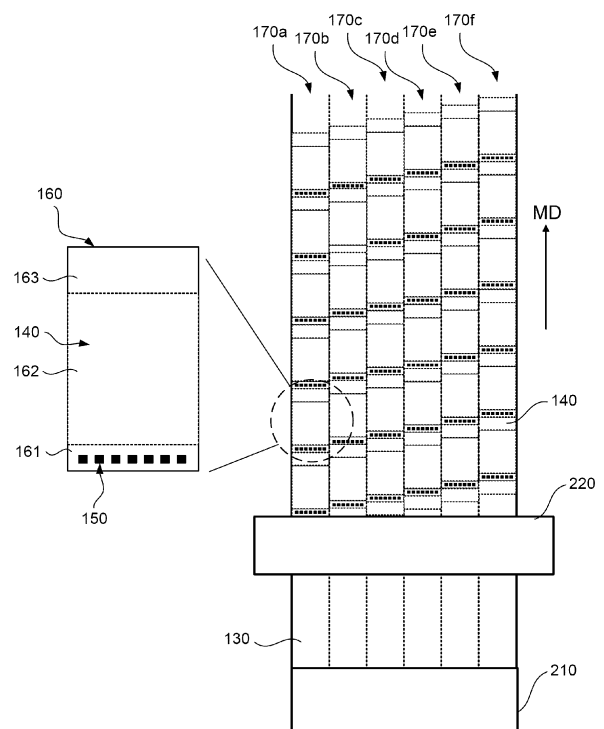


Fig. 2a

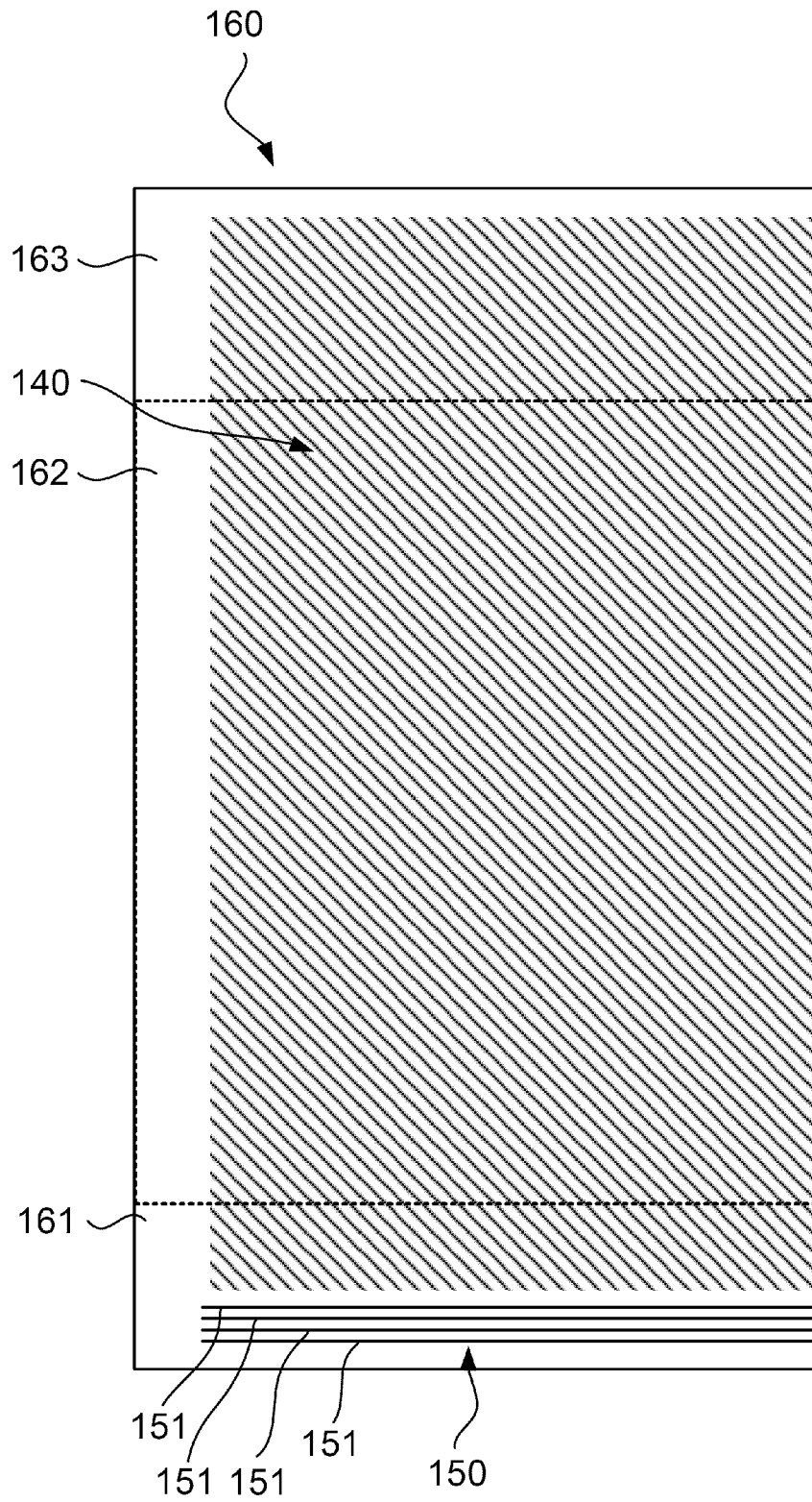


Fig. 2b

## Application Number

EP 24 15 8333

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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                                                                                                                                                                                                         |                                                                                                                                         | Date of completion of the search                                                                                                                                                                                                                                                      | Examiner                                                |
| The Hague                                                                                                                                                                                                               |                                                                                                                                         | 11 September 2024                                                                                                                                                                                                                                                                     | Hartmann, Mathias                                       |
| CATEGORY OF CITED DOCUMENTS                                                                                                                                                                                             |                                                                                                                                         | 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>.....<br>& : member of the same patent family, corresponding document |                                                         |
| 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 |                                                                                                                                         |                                                                                                                                                                                                                                                                                       |                                                         |



Application Number

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**CLAIMS INCURRING FEES**

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

☐ 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):

☐ 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.

**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:

see sheet B

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

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

☒ 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:

1 - 9 , 11 - 19

☐ 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:

☐ 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:

1. claims: 1-6, 12-19

Invention I (searched): cyclic decor

1.1. claims: 12-19

Invention IV (searched): laminated packaging material

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2. claims: 7-9, 11

Invention II (searched): foldable package material

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3. claim: 10

Invention III (not searched): test pattern type

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Please note that all inventions mentioned under item 1, although not necessarily linked by a common inventive concept, could be searched without effort justifying an additional fee.

# ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

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5 This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.  
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