

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220

PCT

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/US2020/016986

International filing date (day/month/year)
06.02.2020

Priority date (day/month/year)
12.02.2019

International Patent Classification (IPC) or both national classification and IPC
INV. B65D71/14

Applicant
WESTROCK PACKAGING SYSTEMS, LLC

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step and industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☒ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA:



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Date of completion of
this opinion

see form
PCT/ISA/210

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Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of:
 - ☒ the international application in the language in which it was filed.
 - ☐ a translation of the international application into , which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1 (b)).
2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43bis.1(a))
3. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing:
 - a. ☐ forming part of the international application as filed:
 - ☐ in the form of an Annex C/ST.25 text file.
 - ☐ on paper or in the form of an image file.
 - b. ☐ furnished together with the international application under PCT Rule 13ter.1(a) for the purposes of international search only in the form of an Annex C/ST.25 text file.
 - c. ☐ furnished subsequent to the international filing date for the purposes of international search only:
 - ☐ in the form of an Annex C/ST.25 text file (Rule 13ter.1(a)).
 - ☐ on paper or in the form of an image file (Rule 13ter.1(b) and Administrative Instructions, Section 713).
4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that forming part of the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
5. Additional comments:

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	<u>9-19, 22, 23</u>
	No: Claims	<u>1-8, 20, 21, 24</u>
Inventive step (IS)	Yes: Claims	<u>10-19, 23</u>
	No: Claims	<u>1-9, 20-22, 24</u>
Industrial applicability (IA)	Yes: Claims	<u>1-24</u>
	No: Claims	

2. Citations and explanations

see separate sheet

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1 Reference is made to the following documents:

D1 US 6 315 123 B1

D2 EP 1 098 822 B1

2 The lack of clarity mentioned under **Item VIII** notwithstanding, the subject-matter of claims 1-8, 20, 21 and 24 is not new in the sense of Article 33(2) PCT, and the criteria of Article 33(1) PCT are therefore not met.

2.1 D1 discloses:

A panel interlocking device (fig. 2) comprising a male tab (62, 64) and a female tab (72, 74) having opposing side edges (108, 110) each concavely curved (112, 114) as viewed from the outside of the female tab (72, 74) [cf. claim 1].

With reference to figures 5, 7 and 9 showing a retaining tab (72) displaced out of the plane of a second panel (20), it is considered that D1 also discloses the subject-matter of independent claims 2 and 3.

With reference to column 4, lines 1-8 "*carton blank*", "*first panel (12)*" and "*second panel (20)*" it is considered that D1 also discloses the subject-matter of independent claim 24.

2.2 Dependent claims 4-8, 20 and 21 do not appear to contain any additional features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty, the reasons being that D1 further discloses:

- the center of curvature (112, 114) being disposed outside (fig. 2) the retaining tab (72, 74) [cf. claims 4, 6];
- the minimum width (fig. 2) of the locking aperture being located (fig. 2) between the distal and proximal ends of the locking aperture [cf. claims 5, 7];
- the width at the proximal end (fig. 2) being the maximum width (w_2) [cf. claim 8];
- the female tab (162) being convexly curved (166) [cf. claims 20, 21].

- 3 Dependent claims 9 and 22 do not appear to contain any additional features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of inventive step, because the subject-matter of said claims consist in the selection of a radius of curvature. Such a selection can only be regarded as inventive, if the radius selected presents unexpected effects or properties. However, no such effects or properties are indicated in the application. Hence, no inventive step is present in the subject-matter of claims 9 and 22 when compared to the disclosure of D1.
- 4 The combination of the features of claims 1 and 10 is neither known from, nor rendered obvious by, the available prior art. The reasons being:
- D1 (fig. 2) discloses a single-position male tab (62, 64) and a female tab (72, 74). The maximum width of the female tab being smaller than the maximum width of the male tab.
- D2 (fig. 3) discloses a single-position male tab (30) and a female tab (42). The maximum width of the female tab being greater than the maximum width of the male tab. However, D2 does not disclose a female tab having concavely curved side edges.
- Starting from the panel interlocking device known from D1, the skilled person would find no hints or suggestions to increase the width of the female tab when seeking to improve the device. In fact, the proper functioning of the stopper tabs (112, 114) could be jeopardized when adding additional cut lines to the female tab as disclosed in D2. To conclude, although the combination of D1 with D2 discloses all the technical features of claims 1 and 10, the skilled person would not consider this combination.

Re Item VII

Certain defects in the international application

- 5 Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in D1 is not mentioned in the description, nor is this document identified therein.
- 6 The features of the claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).

Re Item VIII

Certain observations on the international application

- 7 Although claims 1-3 have been drafted as separate independent claims, they appear to relate effectively to the same subject-matter and to differ from each other only with regard to the definition of the subject-matter for which protection is sought and/or in respect of the terminology used for the features of that subject-matter. The aforementioned claims therefore lack conciseness and as such do not meet the requirements of Article 6 PCT.

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