

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 016626 WO-VB	FOR FURTHER ACTION		See Form PCT/PEA/416
International application No. PCT/NL2016/050846	International filing date (<i>day/month/year</i>) 06.12.2016	Priority date (<i>day/month/year</i>) 07.12.2015	
International Patent Classification (IPC) or national classification and IPC INV. B65D5/02			
Applicant LAMBWESTONMEIJER VOF			
1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36. 2. This REPORT consists of a total of <u>6</u> sheets, including this cover sheet. 3. This report is also accompanied by ANNEXES, comprising: a. ☒ (<i>sent to the applicant and to the International Bureau</i>) a total of <u>9</u> sheets, as follows: ☒ sheets of the description, claims and/or drawings which have been amended and/or sheets containing rectifications authorized by this Authority, unless those sheets were superseded or cancelled, and any accompanying letters (see Rules 46.5, 66.8, 70.16, 91.2, and Section 607 of the Administrative Instructions). ☐ sheets containing rectifications, where the decision was made by this Authority not to take them into account because they were not authorized by or notified to this Authority at the time when this Authority began to draw up this report, and any accompanying letters (Rules 66.4bis, 70.2(e), 70.16 and 91.2). ☐ superseded sheets and any accompanying letters, where this Authority either considers that the superseding sheets contain an amendment that goes beyond the disclosure in the international application as filed, or the superseding sheets were not accompanied by a letter indicating the basis for the amendments in the application as filed, as indicated in item 4 of Box No. I and the Supplemental Box (see Rule 70.16(b)). b. ☐ (<i>sent to the International Bureau only</i>) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing, in the form of an Annex C/ST.25 text file, as indicated in the Supplemental Box Relating to Sequence Listing (see paragraph 3ter of Annex C of the Administrative Instructions).			
4. This report contains indications relating to the following items: ☒ Box No. I Basis of the report ☐ 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 Article 35(2) with regard to novelty, inventive step or 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			
Date of submission of the demand 03.10.2017	Date of completion of this report 21.11.2017		
Name and mailing address of the international preliminary examining authority: European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Fax: +49 89 2399 - 4465		Authorized officer Leijten, René Telephone No. +49 89 2399-2099	



Box No. I Basis of the report

1. With regard to the **language**, this report is based on
- ☒ 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 (under Rules 12.3(a) and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4(a))
 - ☐ international preliminary examination (under Rules 55.2(a) and/or 55.3(a) and (b))
2. With regard to the **elements*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):*

Description, Pages

3-10	as originally filed
1, 2, 2a	filed with the demand for preliminary international examination

Claims, Numbers

1-14	filed with the demand for preliminary international examination
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Drawings, Sheets

2/6-6/6	as originally filed
1/6	filed with the demand for preliminary international examination

- ☐ a sequence listing - see Supplemental Box Relating to Sequence Listing.

3. ☒ The amendments have resulted in the cancellation of:
- ☐ the description, pages
 - ☒ the claims, Nos. 15-16
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing (*specify*):
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since either they are considered to go beyond the disclosure as filed, or they were not accompanied by a letter indicating the basis for the amendments in the application as filed, as indicated in the Supplemental Box (Rules 70.2(c) and (c-bis)):
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing (*specify*):
5. ☐ This report has been established:
- ☐ taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rules 66.1(d-bis) and 70.2(e)).
 - ☐ without taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91(Rules 66.4bis and 70.2(e)).

**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/NL2016/050846

6. ☒ With regard to top-up searches (Rules 66.1 *ter* and 70.2(f)):
- ☒ A top-up search was carried out by this Authority on 23.10.2017 (all discovered documents are listed in the Supplemental Box Relating to Top-up Search).
 - ☐ Additional relevant documents have been discovered during the top-up search.
 - ☐ No top-up search was carried out by this Authority because it would serve no useful purpose.
7. ☐ Supplementary international search report(s) from Authority(ies) has/have been received and taken into account in establishing this report (Rule 45bis.8(b) and (c)).

* *If item 4 applies, some or all of those sheets may be marked "superseded".*

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	<u>1-14</u>
	No: Claims	
Inventive step (IS)	Yes: Claims	<u>1-14</u>
	No: Claims	
Industrial applicability (IA)	Yes: Claims	<u>1-14</u>
	No: Claims	

2. Citations and explanations (Rule 70.7):

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

- 1 Reference is made to the following document:

D1 US 2015/028088 A1

2 INDEPENDENT CLAIM 1

The document D1 is regarded as being the closest prior art to the subject-matter of claim 1 and shows (the references in parentheses applying to this document):

A packet (fig 8-15: 103) for french fries (par. 55) comprising a bottom, side walls*, a front- and a back-wall* and a closable lid (120), which packet has a total surface area and is provided with perforations (170) that collectively have an open area which is set at a preselected ratio of the total surface area, wherein said perforation (170) are at least provided in the lid and wherein the perforations are further provided in the front- and back-wall* (par. 55, 57, 60, 61, 64-66, 68; fig. 8-26)

* In D1 the panels 124 and 126 are called "end panels" and the panels 12 and 16 are called side panels (see par. 57 and 64). The wording "side", "front" or "back" does is not a constructional, technical limiting feature and all of said panels 124, 126, 12 and 16 could be considered to be a front, back or side panels, depending on the point of view of the person looking at the packet.

The subject-matter of claim 1 differs from this known D1 in that:
the perforations in the front- and back-wall are restricted to an area in the bottom's vicinity, wherein the bottom's vicinity extends from the bottom up to a third of the total height of the front- and back-wall.

The subject-matter of claim 1 is therefore new (Article 33(2) PCT).

The problem to be solved by the present invention may be regarded as:

How to improve the packet so that the french fries maintain their crispiness for a longer time.

The solution to this problem proposed in claim 1 of the present application is considered as involving an inventive step (Article 33(3) PCT) for the following reasons:

D1 (fig. 8-15) combines perforations in the lid with perforations in the walls. D1 teaches in par. 65 (last sentence), that the vent features could be otherwise shaped, arranged, positioned and/or configured. However, it is considered not to be obvious for the skilled person to arrive at a packet according to claim 1 by routine trial and error, because none of the prior art documents appears to disclose or suggest to restrict the perforations in the walls to a bottom area.

The technical effect of restricting the perforations in the walls to a bottom area could be considered the "convective flow due to stack effect".

One way to ventilate a building that is hotter or colder on the inside than outside is to use what is known as "stack effect". Because of the temperature difference, the air inside the building is either more or less dense than the air outside. If there is an opening high in the building and another low in the building, a natural flow will be caused. If the air in the building is warmer than the outside, this warmer air will float out the top opening, being replaced with cooler air from outside.

Such a stack effect leads to an improved venting which solves the problem of the packet of D1. It is considered not to be obvious for a skilled person working in the field of food packaging to look in the field of civil engineering (construction of building) to look for a solution for the packet of D1.

3 INDEPENDENT CLAIM 10

The same reasoning applies, *mutatis mutandis*, to the subject-matter of the independent claim 10 (a plano) which therefore is also considered new and inventive.

4 **DEPENDENT CLAIMS 2-10 and 12-14**

Dependent claims 2-10 and 12-14 are dependent on claims 1 and 10 respectively and as such also meet the requirements of the PCT with respect to novelty and inventive step.

Re Item VIII

1 **Lack of clarity, Article 6 PCT**

The description does not meet the requirements of clarity.

The vague and imprecise statement in the description on page 2 (par. 4-5, lines 16-30) implies that the subject-matter for which protection is sought may be different to that defined by the claims, thereby resulting in lack of clarity (Article 6 PCT) when used to interpret them.

Par. 4 (lines 24-30) on page 4 is not in concordance with the independent claims 1 and 10: this paragraph suggests that the perforations in the front- and back-wall could also not be restricted to an area in the bottom's vicinity.

EUROPEAN PATENT OFFICE

P.O. Box 5818

2280 HV RIJSWIJK

Amsterdam, October 2, 2017

our reference 016626WO - VB

your reference

re

International patent application no. PCT/NL 2016/050846

Applicant: Lamb Weston/Meijer vof

Term: October 7, 2017

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Dear Sirs,

It is requested to subject the instant application to an International Preliminary Examination on Patentability in accordance with article 31 PCT. Enclosed is a voucher for payment of the preliminary examination fee.

Enclosed are further new claims 1 – 14 that are considered to meet the requirements of the Patent Cooperation Treaty. Also replacement pages 1 – 2a for the description are enclosed in which the prior art known from document D2 is acknowledged. Further a new figure 1 is included with improved reference signs.

New claim 1 corresponds to original claims 1, 5 and 6. The remainder of the claims has been renumbered. Regarding claim 11 aimed at a blank which corresponds to original claim 13, it is remarked that the claim now specifies the blank as being for forming a packet according to any one of claims 1 – 10, and that the scope of protection of claim 11 is made consistent with the scope of protection of claim 1.

In the International Search Report the closest prior art was deemed D1-US 2015/0028088, which document has already been discussed in the introductory part of the description.

Claim 1 and claim 13 now include comparable language as to the features that differentiate the invention from document D1. In the Written Opinion it is observed with reference to paragraph 65 last sentence that according to D1 the vent features could be otherwise shaped, arranged, positioned and/or configured, but document D1 restricts this variation possibility to the restriction "without departing from the disclosure".

Amsterdam:

Weteringschans 96
1017 XS Amsterdam
tel: (31) 20-6236832
fax: (31) 20-6260007

Utrecht:

Meindert Hobbemalaan 19
3401 NA IJsselstein
tel: (31) 30-2369712
fax: (31) 30-2369695

Eindhoven:

De Zaale 11
5612 AJ Eindhoven
tel: (31) 40-2467971
fax: (31) 40-2431175



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100+ years

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Neither document D1 nor document D2 teaches to provide the perforations in the front- and back-wall (12) and to restrict the perforations (8) in the front- and back-wall (12) to an area in the bottom's vicinity, wherein the bottom's vicinity extends from the bottom (11) up to a third of the total height of the front- and back-wall (12). These features clearly extend beyond and above what is known from document D1 and document D2. The independent claims 1 and 13 therefore involve an inventive step over the cited prior art.

Moreover a general statement as per paragraph 65 of document D1 cannot deprive inventive step from this particular selection invention which provides comparative advantages that are not apparent from the prior art and that cannot be expected therefrom when reading each of these prior art documents alone or in conjunction with each other.

The representative,

J. van Breda

Enclosures:

- request form according to article 31 PCT and voucher for payment
- new claims 1 – 14
- replacement pages 1, 2, 2a
- figure 1

A packet for french fries and a plano for assembling such packet

5 The invention relates to a packet for french fries at least comprising a bottom and side walls and having a total surface area, and provided with perforations that collectively have an open area which is set at a preselected ratio of the total surface area.

10 EP-B-0 867 379 discloses a bag for wrapping food, in particular bread, which is made of a composite material with at least one first layer of a cellulose containing material and a second layer of plastic, wherein the composite material is perforated and a ratio of an open area to the overall area of the composite material is set in the range from 1/50 to
15 1/250 (0.4 - 2 %).

 Applicant has investigated this known bag and has found that it is unsuitable as a packet for french fries, in particular because the fries do not survive an extended stay or holding time in the packets without losing their bite.

20 Both consumers of french fries and the sellers of such french fries place several demands on packets to be used for such french fries. These demands are at least partly in line with each other. The sellers require that the packets enable easy filling with fried/cooked or prepared fries, and
25 that the packets in stock will not take much space. Consumers of french fries require that the fries can survive a minimum holding time in the packets without losing their crispy texture. Investigations have shown that there is a need for a packet for french fries which allows a holding time for the
30 fries of approximately 20 minutes, where after the fries still must be crispy and meet a so-called crunching test to determine the crispiness of the fries by chewing. Reportedly a good crispiness requires at least five times chewing wherein the fries generate crunchiness in the mouth. Furthermore the packets must enable easy transportation, and must provide easy
35 opening, good access to the fries, etc.

 DE 20 2011 051 768 U discloses a packet for french fries without a lid, but with a front wall, a backwall, and

sidewalls, wherein all walls are provided with ventilation perforations.

5 US2015/0028088 discloses a packet for french fries and other snack products comprising a bottom, side walls, a front- and a back-wall and a closable lid, which packet has a total surface area and is provided with perforations that collectively have an open area which is set at a preselected ratio of the total surface area, wherein said perforations are at least provided in the lid. In some embodiments disclosed in
10 this citation the perforations are also provided in the side-walls.

It is an object of the invention to improve the known packet so that it better meets at least in part one or more of the above demands, and to gain further advantages as will become apparent from the following disclosure.
15

The packet of the invention is provided with several features which will be discussed herein cumulatively, however it is to be understood that each feature as embodied in the appended claims can be applied independent from any of the
20 other features in the other claims and be made part of a divisional application without need to incorporate any of said other features of the other claims.

Furthermore the invention is not only embodied in a packet for french fries, but also in a one-piece plano from which such a packet for french fries can be manufactured. Also
25 with regard to the plano it is to be understood that each feature as embodied in the appended claims can be applied independent from any of the other features in the other claims and be made part of a divisional application without need to incorporate any of said other features of the other claims.
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Such a one-piece plano is particularly useful for sellers of french fries that require that limited stockroom will be necessary to keep the packaging material for the fries in stock. In order to meet also other demands that are placed
35 on the packets for french fries, it is preferred that the plano comprises a connecting member that connects on opposite sides of said member to a first side member and to a second side member. The connecting member can be essentially rectangular or round, i.e. circular, elliptical or oval. When assem-

2a

bling the packet out of the plano it is then possible to convert the first and second side member into the front- and back-wall of the packet and the connecting member into the bottom of the packet. The bottom is preferably concave for
5 reasons to be explained hereinafter, and the first and second

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CLAIMS

1. A packet (10) for french fries comprising a bottom (11), side walls, a front- and a back-wall (12) and a closable lid (13), which packet has a total surface area and is provided with perforations (8, 8') that collectively have an open
5 area which is set at a preselected ratio of the total surface area, wherein said perforations (8') are at least provided in the lid (13), **characterized in that** the perforations are further provided in the front- and back-wall (12) and the perforations (8) in the front- and back-wall (12) are restricted to
10 an area in the bottom's vicinity, wherein the bottom's vicinity extends from the bottom (11) up to a third of the total height of the front- and back-wall (12).

2. The packet of claim 1, **characterized in that** said ratio is set in the range of 3 - 10%.

15 3. The packet of claim 1 or 2, **characterized in that** the perforations (8, 8') are at least in part embodied as openings (8'') next to the lid (13).

20 4. The packet of any one of the preceding claims 1 - 3, **characterized in that** the bottom (11) of the packet is concave.

25 5. The packet of any one of claims 1 - 4, **characterized in that** an open area of the perforations (8') in the lid (13) and/or the openings (8'') next to the lid is larger than an open area of perforations (8) in the front- and back-wall (12) at the bottom's vicinity.

6. The packet of any one of claims 1 - 5, **characterized in that** the perforations (8) in the front- and back-wall (12) are provided with dimensions to prevent passing of fries with sizes 6 x 6 mm and/or 9 x 9 mm.

30 7. The packet of any one of claims 1 - 6, **characterized in that** the front- and back-wall (12) taper away from each other when looked from the bottom (11) upwards.

35 8. The packet of any one of claims 1 - 7, **characterized in that** the front- and back-wall (12) smoothly convert into each other so as to provide the packet (10) with a substantially rounded exterior.

9. The packet of any one of claims 1 - 8, **character-**

ized in that the packet (10) is made out of one piece of material.

10. The packet of any one of claims 1 - 9, **characterized in that** the packet (10) is made from a plano (1).

5 11. A one-piece plano (1) for a packet for french fries according to any one of claims 1 - 10, comprising a connecting member (2) that connects on opposite sides of said member (2) to a first and a second side member (3, 4), wherein the first and the second side member (3, 4) are each tapering
10 with an increasing width with increasing distance from the connecting member (2), wherein said width is measured perpendicularly to a body axis (5) extending through the first and second side member (3, 4) and the connecting member (2), and wherein one of the first and second side member (3, 4) connects
15 to an extension piece (6) which is embodied to serve as a lid (13) in a configuration of the plano (1) wherein it is assembled into a packet (10) for french fries, and wherein the first side member (3) and the second side member (4) and the extension piece (6) is provided with perforations (8, 8'),
20 **characterized in that** the first side member (3) and the second side member (4) form a front- and back-wall (12) when the plano is formed into the packet (10), and the perforations (8) in the first side member (3) and the second side member (4) are provided in a region spanning a maximum of one third of said
25 members' length, which region is adjacent to the connecting member (2).

12. The plano of claim 11, **characterized in that** the perforations (8) in the first side member (3) and/or the second member (4) are dimensioned to prevent passing of fries of
30 6 x 6 mm and/or 9 x 9 mm.

13. The plano of claim 11 or 12, **characterized in that** an open area provided by the perforations (8) in the first side member (3) and/or the second side member (4) is smaller than an open area of the perforations (8') in the extension piece (6).
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14. The plano of any one of claims 11 - 13, **characterized in that** the plano (1) has a total surface area and is provided with perforations (8, 8') that collectively have an open area, wherein a ratio of the open area and the total sur-

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face area is set in the range of 3 - 10%.

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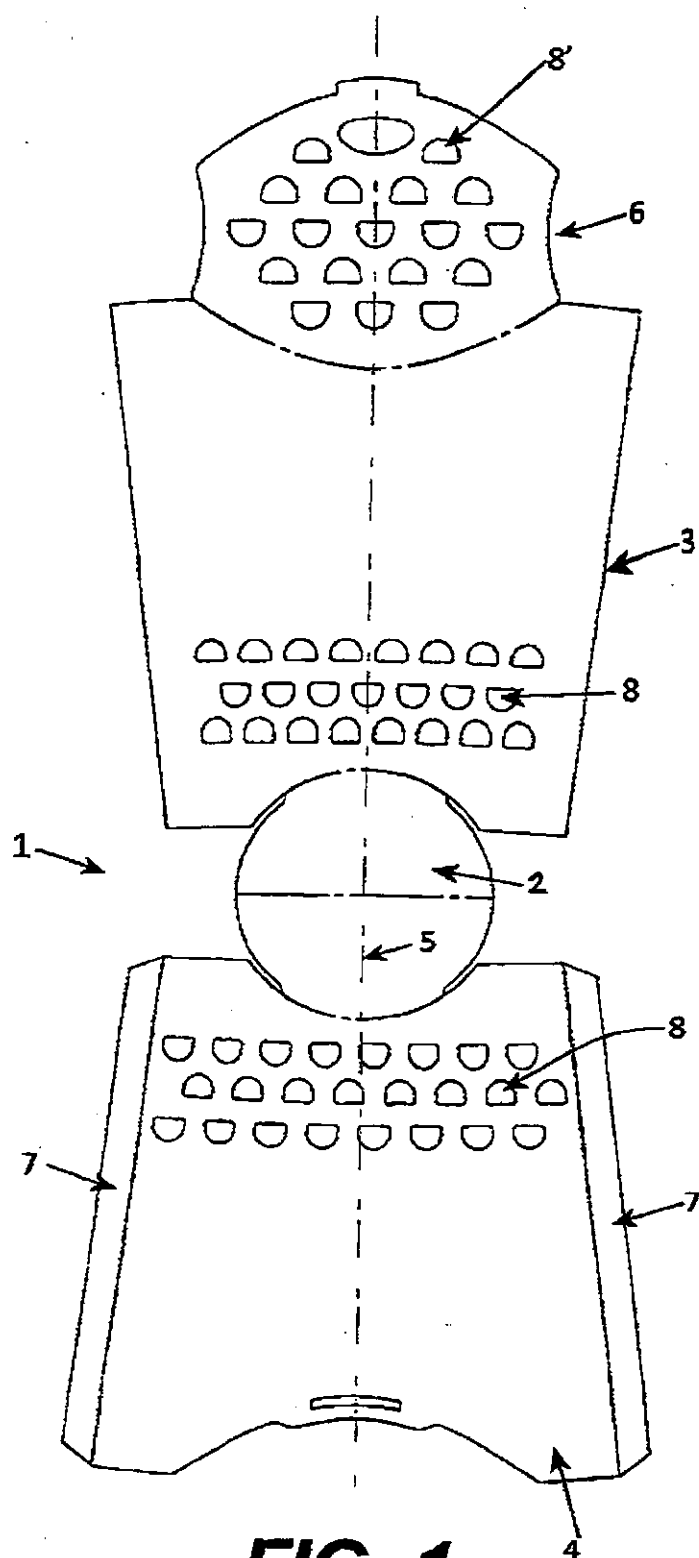


FIG. 1

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