

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference FP2015-053CT	FOR FURTHER ACTION		See item 4 below
International application No. PCT/JP2015/058129	International filing date (<i>day/month/year</i>) 18 March 2015 (18.03.2015)	Priority date (<i>day/month/year</i>) 20 March 2014 (20.03.2014)	
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237			
Applicant NIPPON ELECTRIC GLASS CO., LTD.			

<p>1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).</p> <p>2. This REPORT consists of a total of 6 sheets, including this cover sheet.</p> <p>In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.</p>																								
<p>3. This report contains indications relating to the following items:</p> <table> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. I</td> <td>Basis of the report</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. II</td> <td>Priority</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. V</td> <td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </table> <p>4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).</p>	<input checked="" type="checkbox"/>	Box No. I	Basis of the report	<input type="checkbox"/>	Box No. II	Priority	<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input type="checkbox"/>	Box No. IV	Lack of unity of invention	<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input type="checkbox"/>	Box No. VI	Certain documents cited	<input type="checkbox"/>	Box No. VII	Certain defects in the international application	<input type="checkbox"/>	Box No. VIII	Certain observations on the international application
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<p align="center">The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland</p> <p>Facsimile No. +41 22 338 82 70</p>	<p>Date of issuance of this report 20 September 2016 (20.09.2016)</p>
	<p>Authorized officer</p> <p align="center">Yukari Nakamura</p> <p>e-mail: pt07.pct@wipo.int</p>

PATENT COOPERATION TREATY

TRANSLATION

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:

Date of mailing (day/month/year)	23.06.2015
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Applicant's or agent's file reference FP2015-053CT	FOR FURTHER ACTION See paragraph 2 below
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International application No. PCT/JP2015/058129	International filing date (day/month/year) 18.03.2015	Priority date (day/month/year) 20.03.2014
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International Patent Classification (IPC) or both national classification and IPC
B65G13/071 (2006.01) i, B65H20/00 (2006.01) i, C03B17/06 (2006.01) i

Applicant
NIPPON ELECTRIC GLASS CO., LTD.

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 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

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will 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/JP	Date of completion of this opinion	Authorized officer
Facsimile No.		Telephone No.

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2015/058129

Box No. I **Basis of this 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 43*bis*.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 filed or furnished:
 - a. (means)
 - on paper
 - in electronic form

 - b. (time)
 - in the international application as filed
 - together with the international application in electronic form
 - subsequently to this Authority for the purposes of search

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 in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No. PCT/JP2015/058129
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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)	Claims	3-5, 6-8, 11	YES
	Claims	1-2, 9-10, 12	NO
Inventive step (IS)	Claims	_____	YES
	Claims	1-12	NO
Industrial applicability (IA)	Claims	1-12	YES
	Claims	_____	NO

2. Citations and explanations:

Document 1: JP 2-265852 A (CHUGAI RO CO., LTD.) 30 October 1990, page 2, upper right column, line 14 to lower right column, line 20, fig. 1, 2, 4 (Family: none)

Document 2: JP 2010-132531 A (NIPPON ELECTRIC GLASS CO., LTD.) 17 June 2010, paragraphs [0082], [0083], fig. 12, 13 & US 2011/0177325 A1 & WO 2010/038758 A1 & EP 2336050 A1 & TW 201022163 A & KR 10-2011-0081056 A & CN 103754505 A

The invention as in claims 1-2 lacks novelty and does not involve an inventive step in the light of document 1 cited in the ISR.

Document 1 describes a method for conveying a workpiece (film) while free rollers (guide rolls 1) support the workpiece, wherein the free rollers are rotated by supplying compressed air thereto from an air supply port 7.

Moreover, according to document 1 (page 2, lower right column, lines 4-20), it is obvious that the

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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

compressed air is constantly supplied to the free rollers while the free rollers are rotating.

The invention as in claims 3-5 does not involve an inventive step in the light of document 1 cited in the ISR.

Claims 3-4

Document 1 (page 2, lower right column, lines 4-20) describes a feature wherein the supplied amount of compressed air and the rotation speed of the free rollers are controlled according to the frictional force to the workpiece, whereby the tension of the workpiece is kept constant.

It would be easy for a person skilled in the art to supply compressed air with consideration of the frictional force to the workpiece at the start of the conveyance. Moreover, it would also be easy for a person skilled in the art to increase the amount of compressed air supplied at the start of the conveyance in order to respond to the variation of frictional force to the workpiece between the start of conveyance and after the start of conveyance.

Claim 5

Document 1 describes a feature wherein the compressed air is supplied as fluid.

The invention as in claims 6-8 does not involve an inventive step in the light of document 1, and document 2 cited in the ISR.

Document 2 describes a conveyance method employing a roll-to-roll system, wherein a glass film 2 is rolled up

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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

to form a glass roll 1 at one end of a sequence of conveying rollers, and the glass film 2 is drawn out of the glass roll 1 and carried by the conveying rollers to be rolled up at the other end of the sequence of conveying rollers.

The invention described in document 1 and the invention described in document 2 have a common feature of conveying a film by means of rollers. Therefore, it would be easy for a person skilled in the art to use the glass film 2 drawn out of the glass roll 1 described in document 2 as the film described in document 1.

The invention as in claims 9-10 and 12 lacks novelty and does not involve an inventive step in the light of document 1.

Document 1 describes a feature wherein impellers 5 are provided for receiving compressed air.

Moreover, it is obvious that the impellers 5 described in document 1 form protruding portions that protrude with respect to a shaft 4.

The invention as in claim 11 does not involve an inventive step in the light of document 1.

A person skilled in the art could design, as appropriate, the impellers 5 to form recessed portions as an alternative to the protruding portions for receiving compressed air efficiently.