

**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 24-1WO	<b>FOR FURTHER ACTION</b>		See item 4 below
International application No. PCT/JP2013/052788	International filing date ( <i>day/month/year</i> ) 07 February 2013 (07.02.2013)	Priority date ( <i>day/month/year</i> ) 10 February 2012 (10.02.2012)	
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237			
Applicant GT SPIRAL 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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<input type="checkbox"/>	Box No. VIII	Certain observations on the international application																						

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Date of issuance of this report <b>12 August 2014 (12.08.2014)</b>
Facsimile No. +41 22 338 82 70	Authorized officer  <p align="center"><b>Mineko Mohri</b></p> e-mail: pt08.pct@wipo.int

**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)	<b>09.04.2013</b>
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Applicant's or agent's file reference <b>24-1WO</b>	<b>FOR FURTHER ACTION</b> See paragraph 2 below
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International application No. <b>PCT/JP2013/052788</b>	International filing date (day/month/year) <b>07.02.2013</b>	Priority date (day/month/year) <b>10.02.2012</b>
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International Patent Classification (IPC) or both national classification and IPC  
**E02D5/56 (2006.01) i, E02D27/12 (2006.01) i**

Applicant  
**GT SPIRAL 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/JP2013/052788

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 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 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/JP2013/052788

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)	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">Claims</td> <td style="border-bottom: 1px solid black;">4-6</td> <td style="width: 10%; text-align: right;">YES</td> </tr> <tr> <td>Claims</td> <td style="border-bottom: 1px solid black;">1-3, 7-9</td> <td style="text-align: right;">NO</td> </tr> </table>	Claims	4-6	YES	Claims	1-3, 7-9	NO	
Claims	4-6	YES							
Claims	1-3, 7-9	NO							
	Inventive step (IS)	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">Claims</td> <td style="border-bottom: 1px solid black;"></td> <td style="width: 10%; text-align: right;">YES</td> </tr> <tr> <td>Claims</td> <td style="border-bottom: 1px solid black;">1-9</td> <td style="text-align: right;">NO</td> </tr> </table>	Claims		YES	Claims	1-9	NO	
Claims		YES							
Claims	1-9	NO							
	Industrial applicability (IA)	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">Claims</td> <td style="border-bottom: 1px solid black;">1-9</td> <td style="width: 10%; text-align: right;">YES</td> </tr> <tr> <td>Claims</td> <td style="border-bottom: 1px solid black;"></td> <td style="text-align: right;">NO</td> </tr> </table>	Claims	1-9	YES	Claims		NO	
Claims	1-9	YES							
Claims		NO							
<p>2. Citations and explanations:</p> <p style="margin-left: 40px;">Document 1: JP 2009-197539 A (HASHIMOTO, Shigeharu) 03 September 2009, paragraphs [0022], [0024], fig. 7 (Family: none)</p> <p style="margin-left: 40px;">Document 2: CD-ROM of the specification and drawings annexed to the request of Japanese Utility Model Application No. 38998/1993 (Laid-open No. 12829/1995) (INADOME, Hizuru) 03 March 1995, paragraph [0008], fig. 1, 2 (Family: none)</p> <p style="margin-left: 40px;">Document 3: JP 2000-8536 A (SEKISUI HOUSE, LTD.) 11 January 2000, paragraph [0017], fig. 3 (Family: none)</p> <p style="margin-left: 40px;">The invention as in claims 1-3 is disclosed in document 1 cited in the ISR, and thus lacks novelty and does not involve an inventive step.</p> <p style="margin-left: 40px;">Document 1 discloses a configuration of providing a driving part, an upper end of a holding part, a bolt and a nut (see paragraph [0022]); fig. 7), a configuration of providing a gap in which a head part of the bolt is located between a head part of the driving part and the</p>									

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2013/052788

**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

upper end of the holding part (see fig. 7), and a configuration wherein the holding part has a cylindrical shape (see paragraph [0022]; fig. 7).

The invention as in claims 4-5 does not involve an inventive step in the light of document 1 and document 2 cited in the ISR.

Document 2 (paragraph [0008]; fig. 1, 2) discloses a configuration wherein a groove part that engages with the head part of a bolt has a large hole that passes through the head part of the bolt. Consequently, it would be easy for a person skilled in the art to provide on the upper end of the holding part of document 1 a groove part that has a large hole and engages with the head part of a bolt, as in document 2.

The invention as in claim 6 does not involve an inventive step in the light of document 1 and document 3 cited in the ISR.

Document 3 (paragraph [0017]; fig. 3) discloses a slit for bolt insertion. Consequently, it would be easy for a person skilled in the art to provide the slit for bolt insertion of document 3 on the upper end of the holding part of document 1.

The invention as in claims 7-9 is disclosed in document 1, and thus lacks novelty and does not involve an inventive step.

Document 1 discloses a configuration wherein a base board is placed between the upper end of the holding part and the nut (see paragraph [0024]), a configuration wherein the base board is part of the holding tool for a

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2013/052788

**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**

support (see fig. 1); and a configuration wherein the driving part twists a band plate to form a spiral shape (see paragraph [0022]).