



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

11/526,601

09/26/2006

Naoya Kamimura

006777.00085

3336

30755 7590 01/16/2009  
BANNER & WITCOFF, LTD.  
ATTORNEYS FOR CLIENT NO. 016689  
1100 13th STREET, N.W.  
SUITE 1200  
WASHINGTON, DC 20005-4051

EXAMINER

BRASE, SANDRA L

ART UNIT

PAPER NUMBER

2852

MAIL DATE

DELIVERY MODE

01/16/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	11/526,601	KAMIMURA, NAOYA	
	<b>Examiner</b>	<b>Art Unit</b>	
	Sandra L. Brase	2852	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-11 is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 November 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/26/06</u> .   | 6) <input type="checkbox"/> Other: ____.                          |

***Ex Parte Quayle***

1. This application is in condition for allowance except for the following formal matters.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 25 USPQ 74, 453 O.G. 213, (Comm'r Pat. 1935).

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

***Drawings***

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 97 (page 46, line 18; page 48, lines 7, 10, 13 and 18; page 64, lines 20 and 23; and page 65, line 4). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Art Unit: 2852

3. The drawings are objected to because in figure 10, on the bottom right hand side of the figure, "94" ( which is located between "107" and "106") could be changed to "97" to indicate the agitator driving gear. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

4. The disclosure is objected to because of the following informalities.

Appropriate correction is required.

On page 58, line 22, "wining" could be changed to "winding".

On page 59, line 19, "wining" could be changed to "winding".

*Allowable Subject Matter*

5. Claims 1-11 are allowed.
6. The following is a statement of reasons for the indication of allowable subject matter.

Claims 1-5

The primary reasons for allowance are a developing cartridge that is attachable to and detachable from an image forming apparatus, comprising: a developing roller that includes a developing roller shaft, which rotates at a time of development, a developing roller member provided at a circumference of the developing roller shaft to carry a developer, and a developing roller gear provided to rotate integrally with the developing roller shaft at one side of the developing roller shaft in an axial direction; a driving force transmitting unit that is disposed on the one side of the developing roller shaft in the axial direction and transmits a driving force from a driving rotator provided in the image forming apparatus to the developing roller gear, the driving force transmitting unit including a driven rotator connectable to the driving rotator and a transmission gear that engages with the developing roller gear; and an electrode member that is disposed on an other side of the developing roller shaft in the axial direction and comes into contact with a power supply member to apply a bias supplied by the power supply member to the developing roller shaft, wherein a direction of the driving force applied to the developing roller gear at an engagement portion between the developing roller gear and the transmission gear when the developing roller gear and the transmission gear rotate, and a direction of a force applied to the electrode member at a contact portion between the power supply member and the electrode member when the power supply member presses on the electrode member are substantially equal to a direction orthogonal to the axial direction of the developing roller shaft.

Art Unit: 2852

The above limitations are contained in claims 1-5, but are not taught or suggested by the prior art of record.

#### Claims 6-7

The primary reasons for allowance are a process cartridge that is attachable to and detachable from an image forming device, comprising: a developing cartridge comprising: a developing roller that includes a developing roller shaft, which rotates at a time of development, a developing roller member provided at a circumference of the developing roller shaft to carry a developer, and a developing roller gear provided to rotate integrally with the developing roller shaft at one side of the developing roller shaft in an axial direction; a driving force transmitting unit that is disposed on the one side of the developing roller shaft in the axial direction and transmits a driving force from a driving rotator provided in the image forming apparatus to the developing roller gear, the driving force transmitting unit including a driven rotator connectable to the driving rotator and a transmission gear that engages with the developing roller gear; and an electrode member that is disposed on an other side of the developing roller shaft in the axial direction and comes into contact with a power supply member to apply a bias supplied by the power supply member to the developing roller shaft, wherein a direction of the driving force applied to the developing roller gear at an engagement portion between the developing roller gear and the transmission gear when the developing roller gear and the transmission gear rotate, and a direction of a force applied to the electrode member at a contact portion between the power supply member and the electrode member when the power supply member presses on the electrode member are substantially equal to a direction orthogonal

Art Unit: 2852

to the axial direction of the developing roller shaft; a photosensitive member on which an electrostatic latent image is formed; and a developing cartridge containing portion that contains the developing cartridge. The above limitations are contained in claims 6 and 7, but are not taught or suggested by the prior art of record.

#### Claims 8-9

The primary reasons for allowance are an image forming apparatus comprising: a process cartridge; a process cartridge containing portion that contains the process cartridge; a driving rotator; and a power supply member, wherein the process cartridge comprises: a developing cartridge comprising: a developing roller that includes a developing roller shaft, which rotates at a time of development, a developing roller member provided at a circumference of the developing roller shaft to carry a developer, and a developing roller gear provided to rotate integrally with the developing roller shaft at one side of the developing roller shaft in an axial direction; a driving force transmitting unit that is disposed on the one side of the developing roller shaft in the axial direction and transmits a driving force from the driving rotator provided in the image forming apparatus to the developing roller gear, the driving force transmitting unit including a driven rotator connectable to the driving rotator and a transmission gear that engages with the developing roller gear; and an electrode member that is disposed on an other side of the developing roller shaft in the axial direction and comes into contact with the power supply member to apply a bias supplied by the power supply member to the developing roller shaft, wherein a direction of the driving force applied to the developing roller gear at an engagement portion between the developing roller gear and the transmission gear when the developing roller

Art Unit: 2852

gear and the transmission gear rotate, and a direction of a force applied to the electrode member at a contact portion between the power supply member and the electrode member when the power supply member presses on the electrode member are substantially equal to a direction orthogonal to the axial direction of the developing roller shaft; a photosensitive member on which an electrostatic latent image is formed; and a developing cartridge containing portion that contains the developing cartridge. The above limitations are contained in claims 8-9, but are not taught or suggested by the prior art of record.

#### Claims 10-11

The primary reasons for allowance are an image forming apparatus comprising: a developing cartridge; a developing cartridge containing portion that contains the developing cartridge; a driving rotator; and a power supply member, wherein the developing cartridge comprises: a developing roller that includes a developing roller shaft, which rotates at a time of development, a developing roller member provided at a circumference of the developing roller shaft to carry a developer, and a developing roller gear provided to rotate integrally with the developing roller shaft at one side of the developing roller shaft in an axial direction; a driving force transmitting unit that is disposed on the one side of the developing roller shaft in the axial direction and transmits a driving force from the driving rotator provided in the image forming apparatus to the developing roller gear, the driving force transmitting unit including a driven rotator connectable to the driving rotator and a transmission gear that engages with the developing roller gear; and an electrode member that is disposed on an other side of the developing roller shaft in the axial direction and comes into contact with the power supply



Art Unit: 2852

member to apply a bias supplied by the power supply member to the developing roller shaft, wherein a direction of the driving force applied to the developing roller gear at an engagement portion between the developing roller gear and the transmission gear when the developing roller gear and the transmission gear rotate, and a direction of a force applied to the electrode member at a contact portion between the power supply member and the electrode member when the power supply member presses on the electrode member are substantially equal to a direction orthogonal to the axial direction of the developing roller shaft. The above limitations are contained in claims 10-11, but are not taught or suggested by the prior art of record.

### ***Prior Art***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ishii et al. (US 2006/0029418), Yokoi (US 2004/0028424) and Numagami et al. (US 6,389,250) disclose a driving force transmitting unit and an electrode member.

### ***Inquiry***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sandra L. Brase whose telephone number is (571) 272-2131.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Gray, can be reached on (571) 272-2119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2852

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Sandra L. Brase/

Primary Examiner, Art Unit 2852

January 14, 2009