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(71) Applicant (for all designated States except US): **CANON KABUSHIKI KAISHA** [JP/JP]; 30-2, Shimomaruko 3-chome, Ohta-ku, Tokyo 146-8501 (JP).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **TOBA, Shinjiro** [JP/JP]; c/o CANON KABUSHIKI KAISHA, 30-2, Shimomaruko 3-chome, Ohta-ku, Tokyo, 146-8501 (JP).
YOSHIMURA, Akira [JP/JP]; c/o CANON KABUSHIKI

KAISHA, 30-2, Shimomaruko 3-chome, Ohta-ku, Tokyo, 146-8501 (JP). **NIITANI, Susumu** [JP/JP]; c/o CANON KABUSHIKI KAISHA, 30-2, Shimomaruko 3-chome, Ohta-ku, Tokyo, 146-8501 (JP).

(74) Agent: **YAMADA, Ryuichi**; TOKO International Patent Office, Toranomom Sugai Bldg. 2F, 18-16, Toranomom 3-chome, Minato-ku, Tokyo 1050001 (JP).

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(54) Title: PROCESS CARTRIDGE ELECTROPHOTOGRAPHIC IMAGE FORMING APPARATUS

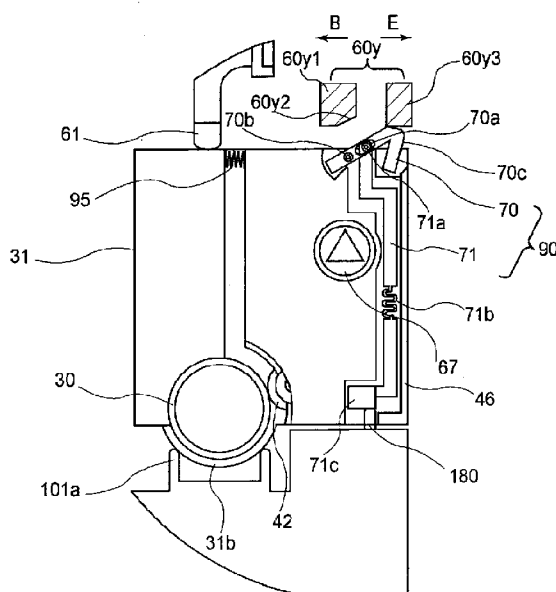


FIG. 6

(57) Abstract: A process cartridge detachably mountable to a main assembly of an electrophotographic image forming apparatus, includes an electrophotographic photosensitive drum; developing roller for developing an electrostatic latent image formed on the electrophotographic photosensitive drum; drum frame supporting the electrophotographic photosensitive drum; a developing frame supporting the developing roller, the developing frame is movable relative to the drum frame and is capable of taking a contacting position in which the developing roller is in contact with the electrophotographic photosensitive drum; and a force receiving device including a first force receiving portion for receiving a first external force and a second force receiving portion for receiving a second external force, wherein the second force receiving portion is movable relative to the developing frame, wherein the second force receiving portion is placed in a stand-by position retracted from an operating position by the first force receiving portion receiving the first external force, and is movable from the stand-by position to the operating position for moving the developing frame from the contacting position to the spacing position, wherein a distance through which the second force receiving portion moves from the stand-by position to the operating position is larger than a distance through which the first force receiving portion is moved by the first external force.



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- *with international search report*
- *with amended claims and statement*

AMENDED CLAIMS**received by the International Bureau on 27 January 2009 (27.01.2009)**

1. A process cartridge detachably mountable to a main assembly of an electrophotographic image forming apparatus, comprising:

an electrophotographic photosensitive drum;

a developing roller for developing an electrostatic latent image formed on said electrophotographic photosensitive drum;

10 a drum frame supporting said electrophotographic photosensitive drum;

a developing frame supporting said developing roller, said developing frame is movable relative to said drum frame and is capable of taking a contacting position in which said developing roller is in contact with said electrophotographic photosensitive drum and a spacing position in which said developing roller is spaced from said electrophotographic photosensitive drum; and

20 a force receiving device including a first force receiving portion for receiving a first external force and a second force receiving portion for receiving a second external force, wherein said second force receiving portion is movable relative to said developing frame, wherein said second force receiving portion is placed in a stand-by position retracted from an operating position by said first force

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receiving portion receiving the first external force,
and is movable from the stand-by position to the
operating position for moving said developing frame
from the contacting position to the spacing position,
5 wherein a distance through which said second force
receiving portion moves from the stand-by position to
the operating position is larger than a distance
through which said first force receiving portion is
moved by the first external force.

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2. A process cartridge according to Claim 1,
wherein said force receiving device includes a first
lever member provided with said first force receiving
portion, a rotatable gear member engaging with said
15 first lever member, and a second lever member provided
with said second force receiving portion and movable
through engagement with said gear member.

3. A process cartridge according to Claim 1,
20 wherein said force receiving device includes a lever
member rotatable about a rotation axis, and is
provided at one end portion with said first force
receiving portion and is provided at the other end
portion with said second force receiving portion.

25

4. A process cartridge according to Claim 1,
wherein said first force receiving portion is provided

on said drum frame.

5 5. A process cartridge according to Claim 1,
wherein said force receiving device is provided on
said developing frame.

10 6. A process cartridge according to Claim 1,
wherein said first force receiving portion contacts
the main assembly of the apparatus and receives the
first external force when said process cartridge is
mounted to the main assembly of the apparatus.

15 7. A process cartridge according to Claim 1,
wherein said second force receiving portion receives
the second external force from a force applying means
provided movably in the main assembly of the apparatus
when said process cartridge is mounted to the main
assembly of the apparatus.

20

25 8. A process cartridge according to Claim 6,
wherein said first force receiving portion receives
the first external force at a lower side of said
process cartridge by contacting to said first force
receiving portion.

9. A process cartridge according to Claim 1,

wherein said first force receiving portion is disposed below said second force receiving portion in the state in which said process cartridge is mounted in place in the main assembly of the apparatus.

5

10. A process cartridge according to Claim 1, wherein said process cartridge is detachably mountable to said main assembly of the apparatus through an opening provided in the main assembly of the electrophotographic image forming apparatus in a substantially horizontal direction crossing with an axial direction of said electrophotographic photosensitive drum.

15 11. A process cartridge according to Claim 1, wherein the main assembly of the apparatus includes a drawer member movable between an inside mounting position and a retracted position in which said process cartridge is mountable thereon.

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12. A process cartridge according to Claim 1, wherein said force receiving member permits, in the stand-by position, said process cartridge to enter the main assembly of the apparatus, and is moved to the operating position from the stand-by position when said process cartridge is mounted to the main assembly of the apparatus.

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13. A process cartridge according to Claim 1,
wherein said drum frame and said developing frame
rotatable relative to each other about a rotation axis,
5 and said force receiving member is more remote from
the rotation axis in the operating position than in
the stand-by position.

14. A process cartridge according to Claim 7,
10 wherein a moving distance of said second force
receiving portion is larger than that of said first
force receiving portion in a direction toward a force
applying member.

15 15. A process cartridge according to Claim 1,
wherein said drum frame supports rotatably said
photosensitive drum by way of a covering member.

16. A process cartridge according to Claim 1,
20 wherein said developing frame supports rotatably said
developing roller by way of a bearing.

17. An electrophotographic image forming apparatus
for forming an image on a recording material, said
25 apparatus comprising:

- (i) a movable force applying member;
- (ii) a main assembly contact portion;

(iii) mounting means;

(iv) a process cartridge mounted demountably to said mounting means, said process cartridge including, an electrophotographic photosensitive drum,

5 a developing roller for developing an electrostatic latent image formed on said electrophotographic photosensitive drum,

a drum frame supporting said electrophotographic photosensitive drum,

10 a developing frame supporting said developing roller, said developing frame is movable relative to said drum frame and is capable of taking a contacting position in which said developing roller is in contact with said electrophotographic photosensitive drum and
15 a spacing position in which said developing roller is spaced from said electrophotographic photosensitive drum,

a force receiving device including a first force receiving portion for receiving a first external
20 force when said process cartridge is mounted to the main assembly of the apparatus of said electrophotographic image forming apparatus, and a second force receiving portion for receiving a second external force when the force applying member moves,
25 wherein said second force receiving portion is movable relative to said developing frame, wherein said second force receiving portion is placed in a stand-by

position retracted from an operating position by said first force receiving portion receiving the first external force, and is movable from the stand-by position to the operating position for moving said developing frame from the contacting position to the spacing position, wherein a distance through which said second force receiving portion moves from the stand-by position to the operating position is larger than a distance through which said first force receiving portion is moved by the first external force; and

(vi) feeding means for feeding the recording material.

18. An apparatus according to Claim 17, wherein said first force receiving portion receives the first external force at a lower side of said process cartridge by contacting to said first force receiving portion.

19. An apparatus according to Claim 17, wherein said process cartridge is detachably mountable to said main assembly of the apparatus through an opening provided in the main assembly of the electrophotographic image forming apparatus in a substantially horizontal direction crossing with an axial direction of said electrophotographic

photosensitive drum.

20. An apparatus according to Claim 17, wherein
the main assembly of the apparatus includes a drawer
5 member movable between an inside mounting position and
a retracted position in which said process cartridge
is mountable thereon.

21. An apparatus according to Claim 17, wherein
10 said force receiving member permits, in the stand-by
position, said process cartridge to enter the main
assembly of the apparatus, and is moved to the
operating position from the stand-by position when
said process cartridge is mounted to the main assembly
15 of the apparatus.

BRIEF STATEMENT UNDER ARTICLE 19(1)

Claims 1 and 17 are amended for clarification.