

Diego Gonzalez Castillo

1) Family number: 59460544 (US2016370757A)

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Title: CARTRIDGE, PROCESS CARTRIDGE AND ELECTROPHOTOGRAPHIC IMAGE FORMING APPARATUS

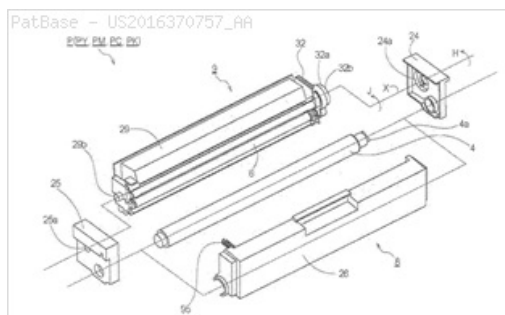
Abstract: A process cartridge detachably mountable to a main assembly of an electrophotographic image forming apparatus, includes a rotatable photosensitive drum; a rotatable developing roller configured to develop image formed on the drum, the developing roller being capable of contacting to and spacing from the drum; an urging force receiving portion configured to receive, from a main assembly side urging member, an urging force for spacing the developing roller from the drum; a cartridge side drive transmission member capable of the coupling with a main assembly side drive transmission member and configured to receive, from the main assembly side drive transmission member, a rotational force for rotating the developing roller; and a decoupling member capable of urging the cartridge side drive transmission member by the urging force received by the urging force receiving portion to decouple the cartridge side drive transmission member from the main assembly side drive transmission member.

Classifications:

International (IPC 8-9): G03G G03G15/00 G03G15/01 G03G15/06 G03G15/08 G03G21/14 G03G21/16 G03G21/18 (Advanced/Invention); G03G (Subclass/Invention)

CPC: G03G15/08 G03G21/1814 G03G15/00 G03G21/1821 G03G21/186 G03G21/1647 G03G21/1842 G03G21/1857

US: 1/1 399/111

**Family:**

Publication number	Publication date	Application number	Application date
AR098612 AA	20160601	AR2014P104510	20141204
AU2014358122 AA	20160505	AU20140358122	20141204
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AU2018204296 AA	20180705	AU20180204296	20180615
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GB2535960 A1	20160831	GB20160011633	20141204
HK1222459 A1	20170630	HK20160110577	20160906
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JP2019003197 A2	20190110	JP20180138787	20180724
JP2020052435 A2	20200402	JP20190234047	20191225
JP6376749 B2	20180822	JP20130253522	20131206
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KR101864975 B1	20180605	KR20167018006	20141204
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TW201734678 A	20171001	TW20170101416	20141205
TWI641926 B	20181121	TW20140142359	20141205
TWI643038 B	20181201	TW20170101416	20141205
US2016370757 AA	20161222	US20140034996	20141204
US2019064732 AA	20190228	US20180171786	20181026
US10139777 BB	20181127	US20140034996	20141204
WO15083842 A1	20150611	WO2014JP82768	20141204
WO15083842 A4	20150813	WO2014JP82768	20141204

Priority:

JP20130253522	20131206	JP20180138787	20131206	AU20140358122	20141204
RU20180126302	20141204	WO2014JP82768	20141204	US20160034996	20160506
AU20180204296	20180615	JP20180138787	20180724	US20180171786	20181026
JP20190234047	20191225	AU20200200121	20200108		

Probable Assignee: CANON INC

Assignee(s): (std): CANON INC ; CANON KK ; KENON KK

Assignee(s): KENON KABUSIKI KAJSYA ; KANNO KAZUHIKO ; NISHIYA SATOSHI ; SATO MASAOKI ; YAMASHITA MASATOSHI

Inventor(s): (std): KANNO KAZUHIKO ; KAZUHIKO KANNO ; MASAOKI SATO ; MASATOSHI YAMASHITA ; NISHIYA SATOSHI ; SATO MASAOKI ; SATOSHI NISHIYA ; SUGANO KAZUHIKO ; YAMASHITA MASATOSHI ; YAMASHITA MASATOSHI ; NISHIYA SATOSHI ; KANNO KAZUHIKO

Agent(s): SPRUSON AND FERGUSON; RIDOUT AND MAYBEE LLP; ESTUDIO FEDERICO VILLASECA Y CIA; TBK; DEACONS; DORA AM BADAR SPPI; YURIDICHESKAYA GORODISSKIY I PARTNERY OOO FA; OOO YURIDICHESKAYA GORODISSKIY I PARTNERY FA; DREW AND NAPIER LLC; FITZPATRICK CELLA HARPER AND SCINTO; YAMADA RYUICHI

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

2) Family number: 64288125 (US2018074454A)

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Title: CARTRIDGE, PROCESS CARTRIDGE AND ELECTROPHOTOGRAPHIC IMAGE FORMING APPARATUS

Abstract: A process cartridge detachably mountable to an electrophotographic image forming apparatus including a main assembly side drive transmission member and a main assembly side urging member, the cartridge including a rotatable photosensitive drum; a rotatable developing roller for developing a latent image formed on the drum, the developing roller contactable to and spaceable from the drum; an urging force receiving portion for receiving an urging force from the urging member to space the roller from the drum; a cartridge side drive transmission portion capable of coupling with the main assembly side drive transmission member to receive a rotational force for rotating the roller; a releasing member capable of urging the main assembly side drive transmission member to decouple the cartridge side drive transmission member from the main assembly side drive transmission member by the urging force receiving portion receiving the urging force from the main assembly side urging member.

Classifications:

International (IPC 8-9): G03G G03G15/06 G03G15/08 G03G15/18

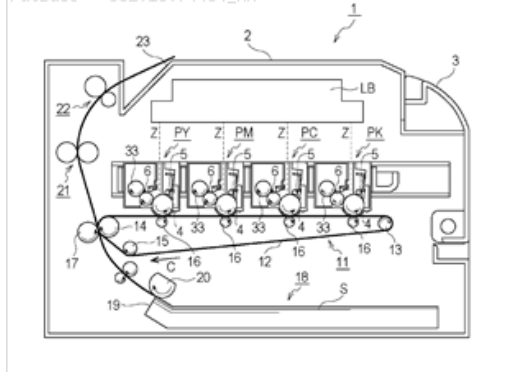
G03G21/16 G03G21/18 (Advanced/Invention)

CPC: G03G15/0808 G03G21/1647 G03G21/186 G03G21/1825

G03G15/0896 G03G21/18

US: 1/1 399/111

PatBase - US2018074454_AA



Family:

Publication number	Publication date	Application number	Application date
AU2016273091 AA	20171019	AU20160273091	20160603
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CA2987891 AA	20171130	CA20162987891	20160603
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SG11201708834Y A1	20171228	SG20171108834	20160603
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Priority:

JP20150115199	20150605	JP20160098243	20160516	AU20160273091	20160603
RU20170135258	20160603	WO2016JP67298	20160603	US20170565749	20171011
AU20180282485	20181221	US20190360147	20190321	AU20200203200	20200515

Probable Assignee: CANON INC

Assignee(s): (std): CANON INC ; CANON KABISHIKI KAISHA ; CANON KK

Assignee(s): UNEME TETSUSHI ; SATO MASAAKI ; KENON KABUSIKI KAJSYA

Inventor(s): (std): UNEME TETSUSHI ; SATO MASAAKI ; UNEME TETSUJI ; TETSUSHI UNEME ; MASAAKI SATO

Inventor(s): UNEME TETSUSI

Agent(s): SPRUSON AND FERGUSON; RIDOUT AND MAYBEE LLP; ESTUDIO VILLASECA Y CIA; HUMBERTO RUBIO CAMACHO; TBK; DEACONS; DORA AMBADAR SP&I; YURIDICHESKAYA GORODISSKI&I PARTNER&Y OOO FA; DREW AND NAPIER LLC; VENABLE LLP; YAMADA RYUICHI

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

3) Family number: 42770866 (US2009003876A) © PatBase

Title: PROCESS CARTRIDGE AND ELECTROPHOTOGRAPHIC IMAGE FORMING APPARATUS

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 roller being movable relative to the drum frame between a contacting position in which the developing roller is in contact with the electrophotographic photosensitive drum and a spacing position in which the developing roller is spaced from the electrophotographic photosensitive drum; a force receiving member, provided movably relative to the developing frame, for receiving an external force, wherein the force receiving member is capable of taking an operating position for moving the developing frame from the contacting position to the spacing position by receiving the external force, and a stand-by position retracted from the operating position; an urging portion for urging the force receiving member from the stand-by position toward the operating position; and an engaging portion for engaging with the force receiving member to hold the force receiving member in the stand-by position against an urging force of the urging portion.

Classifications:

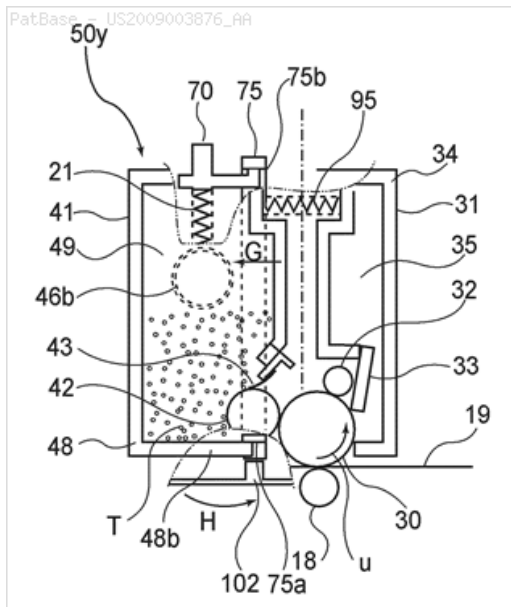
International (IPC 8-9): G03B17/50 G03G G03G15/00 G03G15/01 G03G15/08 G03G21/16 G03G21/18 (Advanced/Invention); G03G15/01 G03G15/08 G03G21/18 (Advanced/Non-invention); G03G15/01 G03G15/08 G03G21/16 G03G21/18 (Core/Invention); G03G (Subclass/Invention)

International (IPC 1-7): G03G21/18

CPC: G03G21/1842 G03G21/18 G03G21/1825 G03G21/1839

European: G03G21/18C4S

US: 1/1 399/111 399/111P



Family:

Publication number	Publication date	Application number	Application date
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CN103207557 B	20150909	CN201310105893	20080630
EP2162800 A1	20100317	EP20080777927	20080630
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Priority:

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Probable Assignee: CANON INC

Assignee(s): (std): CANON KK ; MAESHIMA HIDEKI ; MURAYAMA KAZUNARI ; YOSHIMURA AKIRA

Assignee(s): KEHNON KABUSIKI KAJSSA ; CANON K K ; CANON KK30-2 SHIMOMARUKOTOKYOJP ; CANON INC ; CANON KABUSHIKI KAISHA

Inventor(s): (std): AKIRA YOSHIMURA ; HIDEKI MAESHIMA ; KAZUNARI MURAYAMA ; MAEJIMA HIDEKI ; MAESHIMA HIDEKI ; YOSHIMURA AKIRA ; MURAYAMA KAZUNARI ; MURAJAMA KAZUNARI ; MAESIMA KHIIDEKI ; JOSIMURA AKIRA

Inventor(s): MURAYAMA KAZUNARIJP ; YOSHIMURA AKIRAJP ; MAESHIMA HIDEKIJP

Agent(s): SPRUSON AND FERGUSON; RIDOUT AND MAYBEE LLP; TBK PATENT; TBK; DEACONS; DREW AND NAPIER LLC; FITZPATRICK CELLA HARPER AND SCINTO; YAMADA RYUICHI

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

4) Family number: 34855605 (US2007160388A)

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Title: PROCESS CARTRIDGE AND IMAGE FORMING APPARATUS

Abstract: A process cartridge detachably mountable to a main assembly of an electrophotographic image forming apparatus, the main assembly including an opening, a door movable between a close position for closing the opening and an open position for opening the opening, a first force application member movable with movement of the door from the open position to the closing position and a second force application member movable by a driving force from a driving source, the process cartridge includes an electrophotographic photosensitive drum; a developing roller for developing an electrostatic latent image formed on the electrophotographic photosensitive drum; a drum unit containing the electrophotographic photosensitive drum; a developing unit which contains the developing roller and which is movable relative to the drum unit such that developing roller is movable between a contact position in which the developing roller is contacted to the electrophotographic photosensitive drum and a spaced position in which the developing roller is spaced from the electrophotographic photosensitive drum; and a force receiving device including a first force receiving portion for receiving a force from the first force application member by movement of the door from the open position to the close position in the state that process cartridge is mounted to the main assembly of the apparatus through the opening, and a second force receiving portion movable from a stand-by position by movement of the first force receiving portion by a force received from the first force application member, wherein the second force receiving portion takes a projected position for receiving a force from the second force application member to move the developing unit from the contact position to the spaced position, the projected position being higher than the stand-by position.

Classifications:

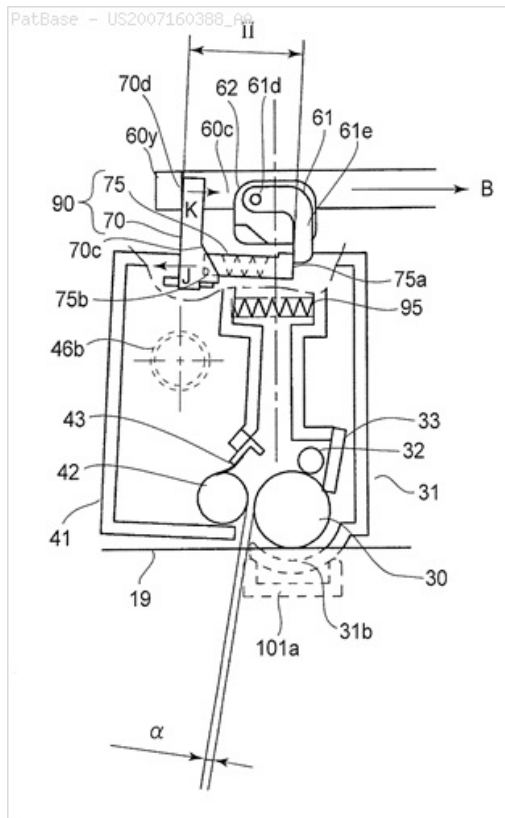
International (IPC 8-9): G03G15/08 G03G G03G15/00 G03G15/02 G03G15/06 G03G15/16 G03G15/18 G03G16/00 G03G21/00 G03G21/16 G03G21/18 G03G21/1820 G06F (Advanced/Invention); G03G15/00 G03G15/02 G03G15/08 G03G21/00 G03G21/16 G03G21/18 (Advanced/Non-invention); G03G15/00 G03G15/02 G03G15/08 G03G21/00 G03G21/16 G03G21/18 (Core/Invention); G03G21/00 (Core/Non-invention); G03G (Subclass/Invention)

International (IPC 1-7): G03G21/18

CPC: G03G21/18 G03G21/1623 G03G21/1825 G03G2215/0119 G03G2221/169 G03G2221/1861 G03G2221/1869 G03G21/1647 G03G21/1676 G03G21/1803 G03G21/1814 G03G21/1839 G03G21/1842 G03G16/00

European: G03G21/18C4S S03G215/01P3 S03G221/16S4 S03G221/18P3A S03G221/18P3B

US: 1/1 399/110 399/110P 399/111 399/111S 399/113 399/114 399/114P 399/119

**Family:**

Publication number	Publication date	Application number	Application date
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EP1977289 A1	20081008	EP20070706929	20070111
EP1977289 B1	20160907	EP20070706929	20070111
EP2884344 A1	20150617	EP20140200534	20070111
EP2884344 B1	20170322	EP20140200534	20070111
EP2889699 A1	20150701	EP20140200533	20070111
EP2889699 B1	20170614	EP20140200533	20070111
EP3244266 A1	20171115	EP20170171902	20070111
EP3244266 B1	20200408	EP20170171902	20070111
EP3379341 A1	20180926	EP20180166842	20070111
ES2606292 T3	20170323	ES20070706929T	20070111
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HK1150404 A1	20140321	HK20110103877	20110418
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HK1160686 A1	20170217	HK20120101088	20120206
HK1160686 A1	20120810	HK20120101088	20120206
HK1160686 A1	20170217	HK20120101088	20120206
HK1160686 B	20170217	HK20120101088	20120206

HK1161367 A1	20131115	HK20120101950	20120227
HK1161367 A1	20120824	HK20120101950	20120227
HK1161367 A1	20131115	HK20120101950	20120227
HK1161367 B	20131115	HK20120101950	20120227
HK1161915 A1	20120810	HK20120101949	20120227
HK1161915 B	20180302	HK20120101949	20120227
HU032198 T2	20170928	HU20070706929T	20070111
IN00788CN2014 A	20141010	IN2014CN00788	20140130
IN00789CN2014 A	20160701	IN2014CN00789	20140130
IN00790CN2014 A	20160831	IN2014CN00790	20140130
IN04161CN2008 A	20090313	IN2008CN04161	20080807
IN259095 B	20140228	IN2008CN04161	20080807
JP2007213025 A2	20070823	JP20060346270	20061222
JP2009086694 A2	20090423	JP20090020236	20090130
JP2009116356 A2	20090528	JP20090020235	20090130
JP4280770 B2	20090617	JP20060346270	20061222
JP4344006 B2	20091014	JP20090020236	20090130
JP4455663 B2	20100421	JP20090020235	20090130
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KR20100037173 A	20100408	KR20107006346	20070111
MY165880 A	20180518	MY20080002554	20070111
PL1977289 T3	20170929	PL20070706929T	20070111
PT1977289 T	20161018	PT20070706929T	20070111
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RU2008132822 A	20100220	RU20080132822	20070111
RU2011115804 A	20121027	RU20110115804	20110421
RU2014116614 A	20151027	RU20140116614	20140424
RU2014116616 A	20151027	RU20140116616	20140424
RU2016152196 A	20180703	RU20160152196	20161229
RU2016152196 A3	20180703	RU20160152196	20161229
RU2426164 C2	20110810	RU20080132822	20070111
RU2527130 C2	20140827	RU20110115804	20110421
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RU2608314 C2	20170117	RU20140116616	20140424
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RU2719735 C1	20200422	RU20190126032	20190819
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SG190576 A1	20130628	SG20130030960	20070111
SG192483 A1	20130830	SG20130052360	20070111
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TW200727095 A	20070716	TW20070101147	20070111
TW201229695 A	20120716	TW20120102236	20070111
TW201229696 A	20120716	TW20120102237	20070111
TW201506559 A	20150216	TW20140132256	20070111
TW201732464 A	20170916	TW20170103515	20070111
TW201841084 A	20181116	TW20180117080	20070111
TW201908889 A	20190301	TW20180143070	20070111
TW201941004 A	20191016	TW20190123098	20070111
TWI363937 B	20120511	TW20070101147	20070111
TWI464546 B	20141211	TW20120102236	20070111
TWI519912 B	20160201	TW20120102237	20070111
TWI581079 B	20170501	TW20140132256	20070111
TWI632440 B	20180811	TW20170103515	20070111
TWI651604 B	20190221	TW20180117080	20070111
TWI671604 B	20190911	TW20180143070	20070111
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US2011110682 AA	20110512	US20100941587	20101108
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US7869740 BB	20110111	US20090363114	20090130
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US8588646 BB	20131119	US20120408911	20120229
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US9465353 BB	20161011	US20160096721	20160412
US9494916 BB	20161115	US20160096721	20160412

US9501034 BB	20161122	US20150829004	20150818
US9519260 BB	20161213	US20160094304	20160408
US9829856 BB	20171128	US20160334589	20161026
US9857763 BB	20180102	US20160260520	20160909
US10162304 BB	20181225	US20170786958	20171018
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US10571854 BB	20200225	US20180160083	20181015
US10642218 BB	20200505	US20180160083	20181015
VN16933 A1	20170625	VN20080002007	20070111
WO07081042 A1	20070719	WO2007JP50622	20070111

Priority:

JP20060004106	20060111	JP20060346270	20061222	CN200780002318	20070111
EP20070706929	20070111	EP20140200533	20070111	IN2008CN04161	20070111
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EP20170171902	20170519	US20170786958	20171018	US20180973874	20180508
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Probable Assignee: CANON INC

Assignee(s): (std): CANON KABUSHIKI KAISHA ; CANON KK ; KENON KK ; MURAYAMA KAZUNARI ; NITTANI SUSUMU ; NUMAGAMI ATSUSHI ; YOSHIMURA AKIRA

Assignee(s): KEHNON KABUSIKI KAJSA ; KENON KABUSIKI KAJSYA ; CANON INC ; CANON K K

Inventor(s): (std): AKIRA YOSHIMURA ; ATSUSHI NUMAGAMI ; JOSIMURA AKIRA ; KAZUNARI MURAYAMA ; MURAJAMA KAZUNARI ; MURAYAMA KAZUNARI ; NITTANI SUSUMU ; NUMAGAMI ATSUSHI ; NUMAGAMI ATSUSI ; SUSUMU NITTANI ; YOSHIMURA AKIRA ; SUSUMU SHINTANI ; SHINTANI SUSUMU ; MURAXAMA KAZUNARI

Inventor(s): NUMAGAMI ATSUSHI TOKYO ; NITTANI SUSUMU TOKYO ; MURAYAMA KAZUNARI TOKYO ; YOSHIMURA AKIRA TOKYO

Agent(s): SPRUSON AND FERGUSON; RIDOUT AND MAYBEE LLP; TBK; TBK-PATENT; DURAN CARLOS; DEACONS; OOO YURIDICHESKAYA GORODISSKIY I PARTNERY FA; YURIDICHESKAYA GORODISSKIY I PARTNERY OOO FA; DREW AND NAPIER LLC; MEHMET NAZIM AYDIN DERIS; FITZPATRICK CELLA HARPER AND SCINTO; VENABLE LLP

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

5) Family number: 29997823 (US2003086723A)

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Title: CARTRIDGE AND ELECTROPHOTOGRAPHIC IMAGE FORMING APPARATUS

Abstract: A cartridge detachably mountable to the main assembly of an electrophotographic image forming apparatus, includes a developing member for developing an electrostatic latent image formed on an electrophotographic photoconductive member; a developer accommodating portion for accommodating a developer to be used by said developing member for developing the electrostatic latent image; a locking portion for engagement with the locking portion of the main assembly of the apparatus to prevent said cartridge from dislodging from the main assembly of the apparatus after mounting of the cartridge; and a releasing portion for disengaging said locking portion of said cartridge from the locking portion of the main assembly of the apparatus when the cartridge is removed from the main assembly of the apparatus.

Classifications:

International (IPC 8-9): G03G15/00 G03G15/01 G03G15/06

G03G21/18 (Advanced/Invention);

G03G15/00 G03G21/18 (Advanced/Non-invention);

G03G15/01 G03G21/18 (Core/Invention)

International (IPC 1-7): G03G15/00 G03G15/01 G03G15/04

G03G15/06 G03G15/08 G03G21/16 G03G21/18

CPC: G03G21/1647 G03G21/1676 G03G15/0121 G03G15/0173

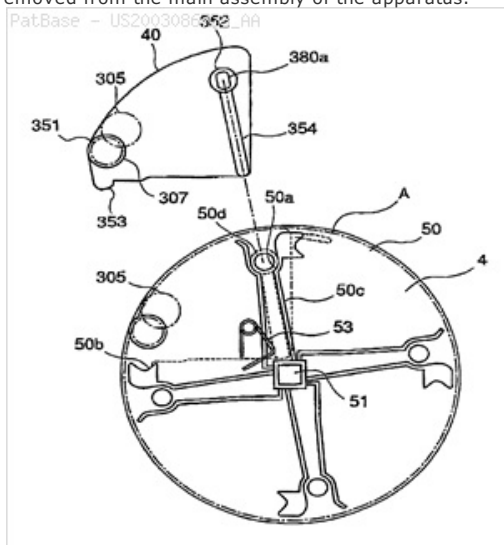
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G03G2215/0177 G03G2221/1654 G03G2221/1846

European: G03G15/01S1B G03G21/16 S03G215/01S2A

S03G221/16K1 S03G221/18P2

US: 399/111 399/112 399/119 399/119P 399/227 399/227S



Family:

Publication number	Publication date	Application number	Application date
CN100514212 C	20090715	CN200510068931	20020719
CN1204466 C	20050601	CN20021026373	20020719
CN1417651 A	20030514	CN20021026373	20020719
CN1469213 A	20040121	CN20031037195	20030609

CN1677267 A	20051005	CN200510068931	20020719
DE60216705 D1	20070125	DE20026016705	20020715
DE60216705 D1	20070125	DE20026016705T	20020715
DE60216705 T2	20070426	DE20026016705T	20020715
EP1308794 A2	20030507	EP20020254969	20020715
EP1308794 A3	20031105	EP20020254969	20020715
EP1308794 B1	20061213	EP20020254969	20020715
EP1369750 A1	20031210	EP20030012794	20030605
JP2003202793 A2	20030718	JP20020167000	20020607
JP3679781 B2	20050803	JP20020167000	20020607
KR100465951 B1	20050113	KR20020041887	20020718
KR20030038333 A	20030516	KR20020041887	20020718
KR20040021517 A	20040310	KR20030036569	20030607
US2003086723 AA	20030508	US20020179847	20020626
US2004037587 AA	20040226	US20030453811	20030604
US2005008395 AA	20050113	US20040914198	20040810
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Priority:

JP20010339244 20011105 JP20020167000 20020607 US20020179847 20020626
US20040914198 20040810

Probable Assignee: CANON INC

Assignee(s): (std): CANON INC ; CANON KK

Assignee(s): CANON K K ; CANON KABUSHIKI KAISHA ; CANON KABUSHIKI KAISHA AB

Inventor(s): (std): SEPENO YITIHIRO ; HACUQU TAQIYAGA ; YAMAGUCHI HIROJI ; YITIHIRO SEPENO ; TAQIYAGA HACUQU ; KOJI YAMAGUCHI ; KANNO KAZUHIKO ; SHIRATORI TATSUYA ; YAMAGUCHI KOJI ; SUGANO KAZUHIKO ; KAZUHIKO KANNO ; TATSUYA SHIRATORI ; HIROJI YAMAGUCHI

Agent(s): FITZPATRICK CELLA HARPER AND SCINTO

Designated states: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC NL PT SE SK TR

6) Family number: 11049705 (US5787323A)

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Title: IMAGE FORMING APPARATUS HAVING A DETACHABLY MOUNTABLE PROCESS CARTRIDGE

Abstract: An image forming apparatus, usable with a process cartridge detachably mountable thereto, for forming an image on a recording material includes a mounting device for mounting the process cartridge; an openable member relative to a main assembly of the image forming apparatus; an urging device, provided in the main assembly, for urging the process cartridge when the openable member is closed, and for releasing the process cartridge when the openable member is opened.

Classifications:

International (IPC 8-9): G03G15/00 G03G21/16
G03G21/18 (Advanced/Invention)

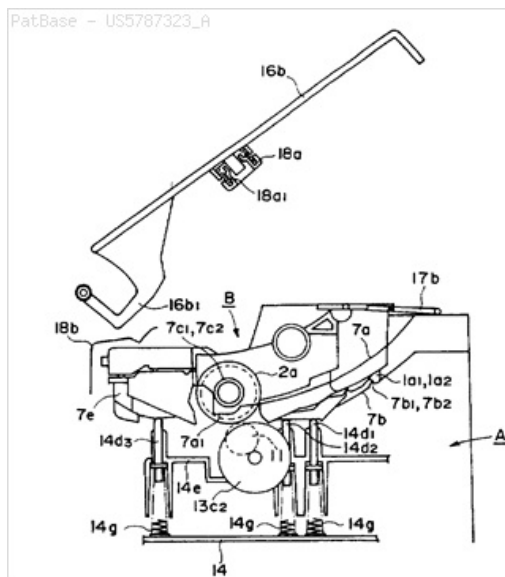
International (IPC 1-7): G03G15/00 G03G21/16 G03G21/18

CPC: G03G21/206 G03G21/1619 G03G21/1623 G03G21/1647

European: G03G21/16 G03G21/18H1V S03G221/16K1

S03G221/16S3 S03G221/18P4 S03G221/18P5

US: 399/111 399/125



Family:

Publication number	Publication date	Application number	Application date
DE69431084 D1	20020905	DE19946031084	19940427
DE69431084 T2	20021205	DE19946031084T	19940427
EP0622697 A2	19941102	EP19940303041	19940427
EP0622697 A3	19951004	EP19940303041	19940427
EP0622697 B1	20020731	EP19940303041	19940427
GB2277487 A1	19941102	GB19940008364	19940427
GB2277487 B2	19961120	GB19940008364	19940427
GB9408364 A0	19940615	GB19940008364	19940427
JP3197112 B2	20010813	JP19930123163	19930428
JP6317959 A2	19941115	JP19930123163	19930428
US5787323 A	19980728	US19960587570	19960117

Priority:

Probable Assignee: CANON INC**Assignee(s):** (std): CANON KK**Assignee(s):** CANON INC ; CANON K K ; CANON KABUSHIKI KAISHA**Inventor(s):** (std): TSUCHIYA YOSHIRO ; TSUCHIYA YOSHIRO C O CANON KAB ; SUGIURA YOSHINORI ; SUGIURA YOSHINORI C O CANON KA ; NOMURA YOSHIYA ; NOMURA YOSHIYA C O CANON KABUS ; TSUCHITANI YOSHIRO**Inventor(s):** SUGIURA YOSHINORI C O CANON KABUSHIKI KAISHA ; NOMURA YOSHIYA C O CANON KABUSHIKI KAISHA ; NOMURA YOSHIYA C O CANON KK ; SUGIURA YOSHINORI C O CANON KK ; TSUCHIYA YOSHIRO C O CANON KK ; YOSHINORI SUGIURA ; YOSHIRO TSUCHIYA ; YOSHIYA NOMURA ; TSUCHIYA YOSHIRO C O CANON KABUSHIKI KAISHA**Designated states:** CH DE ES FR IT LI NL**7) Family number: 8924578 (US5884124A)**

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Title: Dip sheet adhering method, cleaning device, process and image forming apparatus

Abstract: A method is disclosed for attaching a sheet for receiving toner removed from an image bearing member to a frame. The method includes the steps of adhering the sheet to the frame, using an adhesive, while bending the frame and releasing the frame after the sheet is adhered to the frame. A toner-guiding sheet for guiding toner removed from an image bearing member to a toner-receiving unit is also disclosed. The sheet is widened near a central portion in a longitudinal direction so that the sheet edge will conform to the bent shape of an attachment surface. A cleaning device is also disclosed. The cleaning device may include a frame and a sheet attached to the frame by an adhesive in a condition that a tension force is applied to the sheet. Further, the cleaning device may include a cleaning container having a wall that is thinner at a position near an attachment surface for a sheet than at a position away from the attachment surface, to facilitate bending of the attachment surface during application of a sheet to the attachment surface.

Classifications:

International (ipc 8-9): G03G15/00 G03G21/00 G03G21/10 G03G21/12 G03G21/18 (Advanced/Invention); G03G15/00 G03G21/00 G03G21/10 G03G21/12 G03G21/18 (Core/Invention)

International (ipc 1-7): B41F15/40 G03G15/00 G03G15/20 G03G21/00 G03G21/10 G03G21/16 G03G21/18

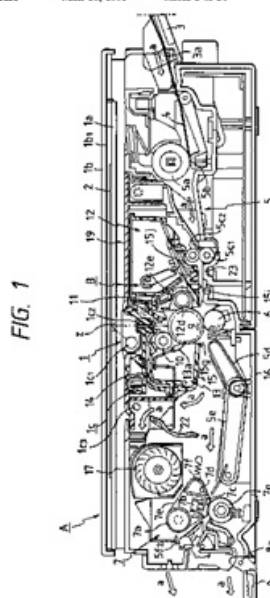
CPC: G03G21/007 G03G21/12

European: G03G21/00B8 G03G21/12

US: 399/111 399/123 399/350

PatBase - US5884124_A

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**Family:**

Publication number	Publication date	Application number	Application date
■ CN1049983 C	20000301	CN19921010576	19920928
■ CN1072513 A	19930526	CN19921010576	19920928
■ DE69223383 D1	19980115	DE19926023383	19920918
■ DE69223383 D1	19980115	DE19926023383T	19920918
■ DE69223383 T2	19980416	DE19926023383T	19920918
■ EP0543485 A2	19930526	EP19920308517	19920918
■ EP0543485 A3	19940504	EP19920308517	19920918
■ EP0543485 B1	19971203	EP19920308517	19920918
■ JP3231848 B2	20011126	JP19920217422	19920724
■ JP6195006 A2	19940715	JP19920217422	19920724
■ KR19930010652 A	19930623	KR19920017619	19920926
■ KR970001392 B1	19970206	KR19920017619	19920926
■ MX9205520 A1	19930630	MX19920005520	19920928
■ US5884124 A	19990316	US19920952913	19920928

Priority:

JP19910186387 19910725

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JP19920217422 19920724

Probable Assignee: CANON INC**Assignee(s):** (std): CANON KK**Assignee(s):** CANON K K ; CANON INC ; CANON K K TOKIO TOKYO JP ; CANON KABUSHIKI KAISHA**Inventor(s):** (std): KARAKAMA TOSHIYUKI ; SHOJI TAKEO ; SHOJI TOSHIYUKI KARAKAMA KAZUS ; WATANABE KAZUFUMI

; WATANABE KAZUSHI ; WATANABE KAZUSI

Inventor(s): WATANABE KAZUSHI C O CANON KABUSHIKI KAISHA OHTA K ; WATANABE KAZUSHI C O CANON KABUSHIKI KAISHA... ; WATANABE KAZUSHI C O CANON OHTA KU TOKYO JP KK ; TAKEO SHOJI ; TOSHIYUKI KARAKAMA ; TOSHIYUKI KARAKAMA KAZUSHI WATANABE TAKEO SHOJI ; SHOJI TAKEO C O CANON KABUSHIKI KAISHA OHTA KU TOK ; SHOJI TAKEO C O CANON KABUSHIKI KAISHA OHTA KU... ; SHOJI TAKEO C O CANON OHTA KU TOKYO JP KK ; KARAKAMA TOSHIYUKI C O CANON KABUSHIKI KAISHA OHTA ; KARAKAMA TOSHIYUKI C O CANON KABUSHIKI KAISHA... ; KARAKAMA TOSHIYUKI C O CANON OHTA KU TOKYO JP KK ; KAZUSHI WATANABE

Designated states: DE ES FR GB IT