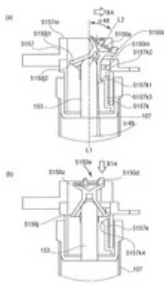
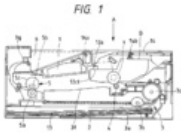
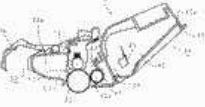
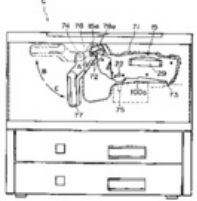


Patent families - 60 results

#	Title	Publication number	1st app. date	Applicant/Assignee	
1.	Image forming apparatus	EP3246762	2007-12-21	CANON CANON KABUSHIKI KAISHA	100 % 
An electrophotographic photosensitive drum unit usable with a main assembly of an electrophotographic image forming apparatus, the main assembly including a driving shaft, to be driven by a motor, having a rotational force applying portion, wherein said electrophotographic photosensitive drum unit is mountable to the main assembly in a mounting direction substantially perpendicular to an axial direction of the driving shaft, wherein said drum unit is dismountable from the main assembly in a dismounting direction opposite to the mounting direction, said electrophotographic drum unit comprising: i) an electrophotographic photosensitive drum having a photosensitive layer at a peripheral surface thereof, said electrophotographic photosensitive drum being rotatable about an axis thereof; ii) a coupling member engageable with said rotational force applying portion to receive a rotational force for rotating said electrophotographic photosensitive drum, said coupling member being capable of taking a rotational force transmitting angular position for transmitting the rotational force for rotating said electrophotographic photosensitive drum to said electrophotographic photosensitive drum, and a pre-engagement angular position in which said coupling member is inclined away from the axis of said electrophotographic photosensitive drum from said rotational force transmitting angular position, and a disengaging angular position in which said coupling member is inclined away from the axis of said electrophotographic photosensitive drum from said rotational force transmitting angular position, wherein when said electrophotographic drum unit is mounted to the main assembly of the electrophotographic image forming apparatus in the mounting direction substantially perpendicular to the axis of said electrophotographic photosensitive drum, said coupling member moves from said pre-engagement angular position to said rotational force transmitting angular position, and wherein when said electrophotographic drum unit is dismounted from the main assembly of the electrophotographic image forming apparatus in the dismounting direction substantially perpendicular to the axis of said electrophotographic photosensitive drum, said coupling member moves from said rotational force transmitting angular position to said disengaging angular position. 					
2.	Electrophotographic image-forming apparatus and coupling part for photosensitive drum	EP0833226	1996-09-26	CANON	86 % 
The present invention provides an electrophotographic image forming apparatus which forms an image on a recording medium and to which a process cartridge can detachably mounted. The apparatus comprises (a) a cartridge mounting portion capable of detachably mounting a process cartridge including an electrophotographic photosensitive drum, process means acting on the photosensitive drum, and a projection having a first twisted polygonal prism provided on one longitudinal end of the photosensitive drum, (b) a rotatable rotary member having a first twisted hole of polygonal cross-section, (c) a rotatable coupling shaft supported for axial movement and being provided at its one end with a second twisted polygonal prism fitted into the first twisted hole of the rotary member, and being provided at its the other end with a second twisted hole of polygonal cross-section for engaging and disengaging with respect to the projection having the first twisted polygonal prism and having substantially the same twisted angle and twisted direction as those of the first twisted polygonal prism, (d) a spring member for biasing the coupling shaft toward the photosensitive drum, (e) an axial direction shafting means for shifting the second twisted hole and the projection having the first twisted polygonal prism relative to each other between a first position where the second twisted hole of the coupling shaft is disengaged from the projection having the first twisted polygonal prism of the photosensitive drum and a second position where the second twisted hole of the coupling shaft is engaged with the projection having the first twisted polygonal prism of the photosensitive drum, and (f) a convey means for conveying the recording medium. <IMAGE> 					
3.	Process cartridge, electrophotographic image forming apparatus and electrophotographic photosensitive drum unit	EP2291714	2008-06-20	CANON CANON KABUSHIKI KAISHA	85 % 
A process cartridge which is detachably mountable to a main assembly of an electrophotographic image forming apparatus including a driving shaft (180) having a rotational force applying portion by moving in a direction substantially perpendicular to an axis of the driving shaft, includes i) an electrophotographic photosensitive drum rotatable about an axis; ii) a coupling member engageable with the rotational force applying portion to receive a rotational force for rotating the drum, the coupling member being capable of taking a rotational force transmitting angular position for transmitting the rotational force, a pre-engagement angular position in which the coupling member is inclined away from the axis and a disengaging angular position in which the coupling member is inclined away from the axis and iii) a regulating portion (170) for regulating an inclination angle of the coupling member such that downward inclination angle of the coupling member is smaller than an inclination angle of the coupling member when the coupling member is at the pre-engagement angular position, wherein in mounting the cartridge to the main assembly, the coupling member moves from the pre-engagement angular position to the rotational force transmitting angular position, and in dismounting the cartridge from the main assembly, the coupling member moves from the rotational force transmitting angular position to the disengaging angular position to disengage from the driving shaft. 					
4.	Process cartridge, electrophotographic image forming apparatus and cartridge mounting method	EP1207437	2000-11-17	CANON	82 % 
A process cartridge detachably mountable to a main assembly of an electrophotographic image forming apparatus, the process cartridge includes a cartridge frame; an electrophotographic photosensitive drum; a charger for charging the drum; a developing member for developing an latent image on the drum; a developer accommodating portion to be used the developing member; an engaging member for being supported by a receiving portion of a movable member provided in the main assembly when the engaging member is in the main assembly; wherein the engaging member is provided on a portion of the cartridge frame which takes an upper position when the cartridge is inserted into the main assembly in a longitudinal direction thereof, at a downstream end position in a direction of insertion of the cartridge into the main assembly; a first guide provided on an upper portion of the frame, at such a position as takes a downstream position, wherein the first guide is guided by a fixed guide provided in the main assembly; a second guide provided on a lower portion of the frame at such a downstream position, wherein the second guide is guided by a first guide recess provided in the main assembly; a third guiding portion provided on a lower portion the frame at such an upstream position, wherein the third guide is guided by a second guide recess; a driving force receiving member provided at a downstream end portion, wherein the driving force receiving member receives a driving force from a driving force transmitting member provided in the main assembly; and a positioning portion projected from the frame toward an upstream side in the inserting direction, wherein the positioning portion is disposed coaxially with the drum, and wherein when the engaging member supported by the receiving portion is released to permit the cartridge to lower to the mount position, the positioning portion is supported by a positioning recess provided in the main assembly. <IMAGE> 					
5.	Cartridge detachably mountable to main assembly of electrophotographic image forming apparatus, assembling method for drive transmitting device for photosensitive drum, and electrophotographic image forming appa...	EP3722885	2012-12-06	CANON	81 % 
With a structure in which a coupling member includes a sphere providing a center of inclination (pivoting), a rotational force transmitted member has an opening have a diameter smaller than that of the sphere, and the coupling member is prevented from disengaging from rotational force transmitted member by contact of inner edge of the opening to the sphere, the inner edge of the opening may limit an inclinable (pivotable) angle range of the coupling member. In a state that a pin (88) which is a shaft portion is inserted in a hole (86b) which is a through-hole provided in a coupling member (86), opposite end portions of the pin (88) are supported by a driving side flange (87) which is a rotational force transmitted member. The coupling member (86) and the driving side flange (87) and the pin (88) are connected in this manner, and the pin (88) contacts the inside of the hole (86b) without limiting the inclinable (pivotable) angle range, by which the coupling member (86) is prevented from disengaging from the driving side flange (87). 