

CLAIMS

1. A cartridge mountable, along a predetermined mounting path, to a main assembly of the electrophotographic image forming apparatus including (i) a photosensitive member on which a latent image is capable of being formed, (ii) a main assembly driving shaft, and (iii) an abutting portion, wherein said cartridge is movable in the main assembly between a developing position at a terminal end of said mounting path and a retracted position which is retracted from the developing position and which is away from the mounting path, said cartridge comprising:

a developer carrying member capable of developing the latent image while being in contact with the photosensitive member when said cartridge is in the developing position;

a coupling member capable of inclining relative to a rotational axis of said developer carrying member, wherein said coupling member is capable of taking a reference attitude in which a drive transmission is capable from the main assembly driving shaft to said developer carrying member when said cartridge is in the developing position, an at-mounting attitude inclined relative to the rotational axis of said developer carrying member to engage with the main assembly driving shaft when said cartridge moves along the mounting path, and an at-spaced attitude inclined relative to the rotational axis of said developer carrying member in a direction different from that in the at-mounting attitude;

a movable member including (i) a movable portion capable of taking a first movement position for causing said coupling member to take the at-spaced attitude and a second movement position for causing said coupling member to take the at-mounting attitude and (ii) a force receiving portion for receiving a force, from the abutting portion, for moving said movable portion from the second movement position to the first movement position, and

an elastic member urging the movable member so that the movable portion moves from the first movement position to the second movement position.

2. A cartridge according to Claim 1, wherein said elastic member for movement includes a spring.

3. A cartridge mountable, along a predetermined mounting path, to a main assembly of the electrophotographic image forming apparatus including (i) a photosensitive member on which a latent image is capable of being formed, (ii) a main assembly driving shaft, and (iii) an abutting portion, wherein said cartridge is movable in the main assembly between a developing position at a terminal end of said mounting path and a retracted position which is retracted from the developing position and which is away from the mounting path, said cartridge comprising:

a developer carrying member capable of developing the latent image while being in contact with the photosensitive member when said cartridge is in the developing position;

a coupling member capable of inclining relative to a rotational axis of said developer carrying member, wherein said coupling member is capable of taking a reference attitude in which the drive transmission is capable from the main assembly driving shaft to said developer carrying member when said cartridge is in the developing position, an at-mounting attitude inclined relative to the rotational axis of said developer carrying member to engage with the main assembly driving shaft when said cartridge moves along the mounting path, an at-spaced attitude inclined relative to the rotational axis of said developer carrying member in a direction different from that in the at-mounting attitude;;

an urging portion for applying an urging force to incline said coupling member relative to the rotational axis of said developer carrying member and to urge said coupling member to the at-spaced attitude or the at-mounting attitude; and

a movable member including (i) a movable portion being different from the urging portion and capable of taking a first movement position for causing said coupling member to take the at-spaced attitude and a second movement position for causing said coupling member to take the at-mounting attitude and (ii) a force receiving portion for receiving a force, from the abutting portion, for moving said movable portion from the second movement position to the first movement position.

4. A cartridge according to Claim 3, further comprising an urging member including said urging portion.

5. A cartridge according to Claim 4, wherein said movable portion is capable of urging at least one of said coupling member and said urging member at least one of the first movement position and the second movement position.

6. A cartridge according to Claim 5, wherein said movable portion is capable of directly urging at least one of said coupling member and said urging member at least one of the first movement position and the second movement position.

7. A cartridge according to Claim 3, wherein when said coupling member takes the at-spaced attitude, said urging portion contacts said coupling member, and said movable portion is spaced from said coupling member; and

when said coupling member takes the at-mounting attitude, said urging portion and said movable portion both contact said coupling member.

8. A cartridge according to Claim 3, wherein said urging portion and said movable portion both contact said coupling member when said coupling member takes the at-spaced attitude and taking the at-mounting attitude.

9. A cartridge according to Claim 4, wherein said urging member and said movable member are provided separately so that said urging portion and said movable portion are movable independently from each other.

10. A cartridge according to Claim 4, wherein said urging member is mounted to said movable member so that said urging portion moves together with said movable portion.

11. A cartridge according to Claim 4, wherein said movable portion is capable of urging said urging member.

12. A cartridge according to Claim 4, wherein when said coupling member takes the at-mounting attitude, said movable portion urges said urging member; and when said coupling member takes the at-spaced attitude, said urging portion urges said coupling member, and said movable portion is spaced from said urging member.

13. A cartridge according to Claim 3, wherein said urging portion and said movable portion constitute a unitary part.

14. A cartridge according to Claim 3, wherein when said coupling

member takes the at-spaced attitude, said urging portion urges said coupling member, and said movable portion is spaced from said coupling member; and when said coupling member takes the at-mounting attitude, said urging portion is spaced from said coupling member, and said movable portion urges said coupling member.

15. A cartridge according to Claim 3, wherein as seen along an axial direction of said developer carrying member, the rotational axis of said coupling member taking the at-spaced attitude and the rotational axis of said coupling member taking the at-mounting attitude are perpendicular to each other.

16. A cartridge according to Claim 15, wherein as seen along the axial direction of said developer carrying member, an angle formed between the rotational axis of said coupling member taking the at-spaced attitude and the rotational axis of said coupling member taking the at-mounting attitude is a value in a range of 20° to 150°.

17. A cartridge according to Claim 16, wherein as seen along the axial direction of said developer carrying member, an angle formed between the rotational axis of said coupling member taking the at-spaced attitude and the rotational axis of said coupling member taking the at-mounting attitude is a value in a range of 30° to 120°.

18. A cartridge according to Claim 17, wherein as seen along the axial direction of said developer carrying member, an angle formed between the rotational axis of said coupling member taking the at-spaced attitude and the rotational axis of said coupling member taking the at-mounting attitude is a

value of 75° .

19. A cartridge according to Claim 3, wherein as seen along the axial direction of said developer carrying member, an angle formed between a line connecting a center of inclination of said coupling member and said rotational axis of said developer carrying member and the rotational axis of said coupling member taking the at-spaced attitude is not more than 30° .

20. A cartridge according to Claim 19, wherein as seen along the axial direction of said developer carrying member, an angle formed between a line connecting a center of inclination of said coupling member and said rotational axis of said developer carrying member and the rotational axis of said coupling member taking the at-spaced attitude is 5° .

21. A cartridge according to Claim 3, wherein as seen along the axial direction of said developer carrying member, an angle formed between a line connecting a center of inclination of said coupling member and said rotational axis of said developer carrying member and the rotational axis of said coupling member taking the at-mounting attitude is a value in the range of 45° to 95° .

22. A cartridge according to Claim 19, wherein as seen along the axial direction of said developer carrying member, an angle formed between a line connecting a center of inclination of said coupling member and said rotational axis of said developer carrying member and the rotational axis of said coupling member taking the at-mounting attitude is 70° .

23. A cartridge according to Claim 3, wherein an angle formed between the rotational axis of said coupling member taking the at-spaced

attitude and the rotational axis of said coupling member taking the reference attitude is a value in the range of 20° to 60°.

24. A cartridge according to Claim 3, wherein an angle formed between the rotational axis of said coupling member taking the at-mounting attitude and the rotational axis of said coupling member taking the reference attitude is a value in the range of 20° to 60°.

25. A cartridge according to Claim 3, wherein said urging portion is capable of directly urging said coupling member.

26. A cartridge according to Claim 4, further comprising an urging elastic member.

27. A cartridge according to Claim 26, wherein said urging portion is provided at a part of said urging elastic member.

28. A cartridge according to Claim 26, wherein said urging elastic member includes a spring.

29. A cartridge according to Claim 3, wherein said movable portion is capable of taking a movement reference position for placing said coupling member in the reference attitude.

30. A cartridge according to Claim 29, wherein for said movable portion, said movement reference position and said second movement are in the same position.

31. A cartridge according to Claim 3, wherein said movable member includes an elastic member for movement.

32. A cartridge according to Claim 31, wherein said elastic member for movement includes said movable portion.

33. A cartridge according to Claim 31, wherein said elastic member for movement includes a spring.

34. A cartridge according to Claim 3, wherein said movable member is rotatable.

35. A cartridge according to Claim 3, wherein said movable member is provided with said force receiving portion at one end thereof and said movable portion at the other end thereof.

36. A cartridge according to Claim 3, further comprising a developing blade positioned next to said developer carrying member, wherein as seen along the rotational axis of said developer carrying member, said force receiving portion is disposed substantially in an opposite side from said developer carrying member with respect to said developing blade.

37. A cartridge according to Claim 3, wherein said coupling member includes a free end portion provided with a rotational force receiving portion for receiving a rotational force from the main assembly driving shaft, a connection end portion provided with a rotational force transmitting portion for transmitting the rotational force to said developer carrying member, a connecting portion connecting said free end portion and said connection end

portion.

38. A cartridge according to Claim 37, wherein said coupling member includes a positioned portion to be positioned relative to said cartridge when taking said at-spaced attitude or the at-mounting attitude.

39. A cartridge according to Claim 38, wherein the positioned portion is provided at said connecting portion.

40. A cartridge according to Claim 38, wherein said positioned portion is provided at said connection end portion.

41. A cartridge according to Claim 38, further comprising an at-spaced positioning portion for positioning said positioned portion to cause said coupling member to take the at-spaced attitude.

42. A cartridge according to Claim 41, further comprising a cartridge frame provided with said at-spaced positioning portion.

43. A cartridge according to Claim 38, further comprising an at-mounting positioning portion for positioning said positioned portion to cause said coupling member to take the at-mounting attitude.

44. A cartridge according to Claim 43, further comprising a cartridge frame provided with said at-mounting positioning portion.

45. A cartridge according to Claim 37, wherein said urging portion urges said connecting portion.

46. A cartridge according to Claim 3, further comprising a cartridge frame rotatably supporting said developer carrying member, an end member mounted to an end of said cartridge frame, wherein said movable member and an urging member including said urging portion are provided on said end member.

47. A cartridge mountable, along a predetermined mounting path, to a main assembly of the electrophotographic image forming apparatus including a main assembly driving shaft and an abutting portion, said cartridge comprising:

- a photosensitive member on which a latent image is capable of being formed;

- a developer carrying member capable of developing the latent image and movable between a developing position contacting said photosensitive member to develop the latent image and a retracted position retracted from the developing position;

- a coupling member capable of inclining relative to a rotational axis of said developer carrying member, wherein said coupling member is capable of taking a reference attitude in which the drive transmission is capable from the main assembly driving shaft to said developer carrying member when said developer carrying member is in the developing position in a state that said cartridge is mounted at a terminal end of the mounting path, an at-mounting attitude inclined relative to the rotational axis of said developer carrying member to engage with the main assembly driving shaft when said cartridge moves along the mounting path, an at-spaced attitude inclined relative to the rotational axis of said developer carrying member in a direction different from that in the at-mounting attitude to engage with the main assembly driving shaft

when said developer carrying member moves from the retracted position to the developing position in the state that said cartridge is mounted at the end portion of the mounting path;

an urging portion for applying an urging force to incline said coupling member relative to the rotational axis of said developer carrying member and to urge said coupling member to the at-spaced attitude or the at-mounting attitude; and

a movable member including (i) a movable portion being different from the urging portion and capable of taking a first movement position for causing said coupling member to take the at-spaced attitude and a second movement position for causing said coupling member to take the at-mounting attitude and (ii) a force receiving portion for receiving a force, from the abutting portion, for moving said movable portion from the second movement position to the first movement position.