

CLAIMS

1. A cartridge comprising:

i) a developing roller rotatable about an axis L1 of the developing roller;

ii) a coupling member rotatable about an axis L2 of the coupling member, the coupling member being configured to transmit a rotational force to the developing roller, and the coupling member being movable between (a) a reference attitude in which the axis L2 of the coupling member is parallel to and offset from the axis L1 of the developing roller, (b) a first inclination attitude in which the coupling member is inclined in a direction toward the developing roller, and (c) a second inclination attitude in which the coupling member is inclined in a direction different from the direction that the coupling member is inclined in the first inclination attitude;

iii) an urging portion capable of urging the coupling member by contacting the coupling member such that the axis L2 of the coupling member is inclined relative to the axis L1 of the developing roller; and

iv) a movable portion capable of moving between a first position for causing the coupling member to take the first inclination attitude and a second position for causing the coupling member to take the second inclination attitude.

2. A cartridge according to claim 1, further comprising an urging member provided with the urging portion.

3. A cartridge according to claim 2, wherein the movable portion is capable of urging at least one of the coupling member and the urging member when the movable portion is positioned at the first position and/or the second position.

4. A cartridge according to claim 3, wherein the movable portion is capable of directly urging at least one of the coupling member and the urging member when the movable portion is positioned at the first position and/or the second position.

5. A cartridge according to claim 3, wherein the cartridge is configured such that when the coupling member is in the first inclination attitude, the urging portion contacts coupling member and the movable portion is spaced from the coupling member, and when the coupling member is in the second inclination attitude, the urging portion and the movable portion both contact the coupling member.

6. A cartridge according to claim 3, wherein the cartridge is configured such that the urging portion and the movable portion both contact the coupling member when the coupling member is in the first inclination attitude and when the coupling member is in the second inclination attitude.

7. A cartridge according to claim 3, further comprising a movable member that includes the movable portion,

wherein the urging member and the movable member are provided separately such that the urging portion and the movable portion are capable of moving independently from each other.

8. A cartridge according to claim 3, further comprising a movable member that includes the movable portion,

wherein the urging member is mounted to the movable member such that the urging portion is capable of moving together with the movable portion.

9. A cartridge according to claim 3, wherein the movable portion is capable of urging the urging member.

10. A cartridge according to claim 9, wherein the cartridge is configured such that when coupling member is in the second inclination attitude, the movable portion urges the urging member, and, when the coupling member is in the first inclination attitude, the urging portion urges the coupling member and the movable portion is spaced from the urging member.

11. A cartridge according to claim 3, wherein the urging portion and the movable portion are a unitary part.

12. A cartridge according to claim 3, wherein the cartridge is configured such that when the coupling member is in the first inclination attitude, the urging portion urges the coupling member and the movable portion is spaced from the coupling member, and, when the coupling member is in the second inclination attitude, the urging portion is spaced from the coupling member and the movable portion urges the coupling member.

13. A cartridge according to claim 1, wherein the cartridge is configured such that, as seen along an axial direction of the developing roller, a direction of the axis L2 of the coupling member when the coupling member is in the first inclination attitude crosses a direction of the axis L2 of the coupling member when the coupling member is in the second inclination attitude.

14. A cartridge according to claim 13, wherein the cartridge is configured such that as seen along the axial direction of the developing roller, an angle formed between the axis L2 of the coupling member when the coupling member is in the first inclination attitude and the axis L2 of the coupling member when the coupling member is in the second inclination attitude is in the range of 20 degrees to 150 degrees.

15. A cartridge according to claim 14, wherein the cartridge is configured such that as seen along the axial direction of the developing roller, an angle formed between the axis L2 of the coupling member when the coupling member is in the first inclination attitude and the axis L2 of the coupling member when the coupling member is in second inclination attitude is in the range of 30 degrees to 120 degrees.

16. A cartridge according to claim 15, wherein the cartridge is configured such that as seen along the axial direction of the developing roller, an angle formed between the axis L2 of the coupling member when the coupling member is in the first inclination attitude and the axis L2 of the coupling member when the coupling member is in the second inclination attitude is 75 degrees.

17. A cartridge according to claim 1, wherein the cartridge is configured such that as seen along the axial direction of the developing roller, an angle formed between (i) a line connecting a center of inclination of the coupling member and the axis L2 of the developing roller and (ii) the axis L2 of the coupling member when the coupling member is in the first inclination attitude is less than 30 degrees.

18. A cartridge according to claim 17, wherein the angle formed between the line

connecting a center of inclination of the coupling member and the axis L1 of the developing roller and the axis L2 of the coupling member taking when the coupling member is in the first inclination attitude is 5 degrees.

19. A cartridge according to claim 1, wherein, the cartridge is configured such that, as seen along the axial direction of the developing roller, an angle formed between (i) a line connecting a center of inclination of the coupling member and the axis L1 of the developing roller and (ii) the axis L2 of the coupling member when the coupling member is in the second inclination attitude is in the range of 45 degrees to 95 degrees.

20. A cartridge according to claim 19, wherein the angle formed between the line connecting a center of inclination of the coupling member and the axis L1 of the developing roller and the axis L2 of the coupling member is 70 degrees.

21. A cartridge according to claim 1, wherein an angle formed between the axis L2 of the coupling member when the coupling member is in the first inclination attitude and the axis L2 of the coupling member when the coupling member is in the reference attitude in the range of 20 degrees to 60 degrees.

22. A cartridge according to claim 1, wherein an angle formed between the axis L2 of the coupling member when the coupling member is in the second inclination attitude and the axis L2 of the coupling member when the coupling member is in the reference attitude is in the range of 20 degrees to 60 degrees.

23. A cartridge according to claim 1, wherein the urging portion is capable of directly

urging the coupling member.

24. A cartridge according to claim 2, further comprising an urging elastic member.

25. A cartridge according to claim 24, wherein the urging portion is provided as a part of the urging elastic member.

26. A cartridge according to claim 24, wherein the urging elastic member includes a spring.

27. A cartridge according to claim 26, wherein the spring is a torsion spring.

28. A cartridge according to claim 26, wherein the spring is a coil spring.

29. A cartridge according to claim 1, wherein the movable portion is capable of moving to a reference position for moving the coupling member to the reference attitude.

30. A cartridge according to claim 29, wherein for the movable portion, the reference position and the second position are the same.

31. A cartridge according to claim 1, further comprising a movable member that includes the movable portion.

32. A cartridge according to claim 31, wherein the movable member includes an elastic member that is movable.

33. A cartridge according to claim 32, wherein the elastic member includes the movable portion.
34. A cartridge according to claim 32, wherein the elastic member includes a spring.
35. A cartridge according to claim 34, wherein the spring is a torsion spring.
36. A cartridge according to claim 34, wherein the spring is a coil spring.
37. A cartridge according to claim 31, wherein the movable member is rotatable.
38. A cartridge according to claim 31, wherein the movable member includes a force receiving portion for receiving a force for moving the movable portion from the first position to the second position.
39. A cartridge according to claim 38, wherein the movable member is provided with the force receiving portion at one end thereof and the movable portion at the other end thereof.
40. A cartridge according to claim 38, further comprising a developing blade positioned next to the developing roller,
- wherein, as seen along the axis L1 of the developing roller, the force receiving portion and the developing blade are positioned on opposite sides of the developing roller.

41. A cartridge according to claim 1, wherein the coupling member includes (i) a free end portion provided with a rotational force receiving portion for receiving a rotational force, (ii) a connection end portion provided with a rotational force transmitting portion for transmitting the rotational force to the developing roller, and (iii) a connecting portion connecting the free end portion and the connection end portion.

42. A cartridge according to claim 41, wherein the coupling member includes a positioned portion capable of being positioned relative to the cartridge when the coupling member is in the first inclination attitude and/or when the coupling member is in the second inclination attitude.

43. A cartridge according to claim 42, wherein the positioned portion is provided at the connecting portion.

44. A cartridge according to claim 42, wherein the positioned portion is provided at the connection end portion.

45. A cartridge according to claim 44, wherein the positioned portion is projected from the connection end portion.

46. A cartridge according to claim 42, further comprising an at-spaced positioning portion for positioning the positioned portion to cause the coupling member to take the first inclination attitude.

47. A cartridge according to claim 46, further comprising a cartridge frame provided

with the at-spaced positioning portion.

48. A cartridge according to claim 47, wherein the cartridge frame includes a supporting member for supporting the developing roller, and the supporting member includes the at-spaced positioning portion.

49. A cartridge according to claim 42, further comprising an at-mounting positioning portion for positioning the positioned portion to cause the coupling member to take the second inclination attitude.

50. A cartridge according to claim 49, further comprising a cartridge frame provided with the at-mounting positioning portion.

51. A cartridge according to claim 50, wherein the cartridge frame includes a supporting member for supporting the developing roller, and the supporting member includes the at-mounting positioning portion.

52. A cartridge according to claim 41, wherein a maximum radius of the connecting portion is shorter than a distance between the axis L2 of the coupling member and the rotational force receiving portion.

53. A cartridge according to claim 41, wherein the urging portion urges the connecting portion.

54. A cartridge according to claim 1, further comprising:

a cartridge frame rotatably supporting the developing roller; and
an end member provided at an end portion of the cartridge frame,
wherein a movable member including the movable portion and a urging member
including the urging portion are provided on the end member.

55. A cartridge according to claim 1, further comprising a rotatable photosensitive drum on which a latent image to be developed by the developing roller is capable of being formed.

56. A cartridge according to claim 55, wherein, as seen along the L1 axis of the developing roller, the developing roller is positioned between a pivoting center of the coupling member and a rotational axis of the photosensitive drum.

57. A cartridge according to claim 55, wherein the developing roller is movable between a contacting position where the developing roller contacts the photosensitive drum and a spaced position where the developing roller is spaced from the photosensitive drum.

58. A cartridge comprising:

- i) a developing roller rotatable about an axis L1 of the developing roller;
- ii) a coupling member rotatable about an axis L2 of the coupling member, the coupling member being configured to transmit a rotational force to the developing roller, the coupling member being capable of moving between (a) a reference attitude in which the axis L2 of the coupling member is parallel to the axis L1 of the developing roller, (b) a first inclination attitude in which the coupling member is inclined from the reference attitude in a first direction, and (c) a second inclination attitude in which the coupling member is inclined in a

second direction that is different from the first direction;

iii) an urging portion capable of urging the coupling member by contacting the coupling member to incline axis L2 of the coupling member relative to the axis L1 of the developing roller; and

iv) a movable portion capable of moving between a first attitude for causing the coupling member to take the first inclination attitude and a second attitude for causing the coupling member to take the second inclination attitude.

59. A cartridge comprising:

i) a developing roller rotatable about an axis L1 of the developing roller;

ii) a coupling member rotatable about an axis L2 of the coupling member, the coupling configured to transmit a rotational force to the developing roller, the coupling member being movable between (a) a reference attitude in which the axis L2 of the coupling member is parallel to and offset from the axis L1 of the developing roller, (b) a first inclination attitude in which the coupling member is inclined toward the developing roller, and (c) a second inclination attitude in which the axis L2 of the coupling member is inclined in a direction different from the direction the coupling member is inclined in the first inclination attitude;

iii) an urging member capable of urging the coupling member by contacting the coupling member to incline the coupling member to the first inclination attitude; and

iv) a movable member capable of moving the coupling member to the first inclination attitude or the second inclination attitude.

60. A cartridge according to claim 59, wherein the urging member includes an elastic member.

61. A cartridge according to claim 60, wherein the elastic member includes a spring.

62. A cartridge according to claim 60, wherein the movable member is capable of moving between an urging position in which the movable member urges the coupling member to the second inclination attitude against an elastic force of the elastic member, and a retracted position retracted from the urging position, with the coupling member be capable of being in the first inclination attitude when the movable member is in the retracted position.

63. A cartridge according to claim 59, wherein the movable member includes an additional elastic member.

64. A cartridge according to claim 63, wherein the additional elastic member includes a spring.

65. A cartridge according to claim 59, further comprising an inclination regulating portion for positioning the coupling member at the first inclination attitude.

66. A cartridge according to claim 65, further comprising a cartridge frame provided with the inclination regulating portion.

67. A cartridge according to claim 65, wherein the cartridge frame includes a supporting member for supporting the developing roller, with the supporting member including the inclination regulating portion.

68. A cartridge according to claim 65, wherein the coupling member includes a

projected positioned portion that is positioned by an at-spaced positioning portion.

69. A cartridge according to claim 59, further comprising an inclination regulating portion for positioning the coupling member at the second inclination attitude.

70. A cartridge according to claim 69, further comprising a cartridge frame provided with the inclination regulating portion.

71. A cartridge according to claim 70, wherein the cartridge frame includes a supporting member for supporting the developing roller, with the supporting member including the inclination regulating portion.

72. A cartridge according to claim 69, wherein the coupling member includes a projected positioned portion that is positioned by the inclination regulating portion.

73. A cartridge according to claim 59, wherein the cartridge is configured such that when the coupling member takes the first inclination attitude, an angle formed between the axis L2 of the coupling member and the axis L1 of the developing roller is in the range of 20 degrees to 60 degrees.

74. A cartridge according to claim 59, wherein the cartridge is configured such that when the coupling member is in the second inclination attitude, an angle formed between the axis L2 of the coupling member and the axis L1 of the developing roller is in the range of 20 degrees to 60 degrees.

75. A cartridge according to claim 59, wherein the cartridge is configured such that, as seen along the axis L1 of the developing roller, an angle formed between the axis L2 of the coupling member when the coupling member is in the first inclination attitude and the axis L2 of the coupling member when the coupling member is in the second inclination attitude is in the range of 30 degrees to 120 degrees.

76. A cartridge according to claim 59, wherein the coupling member includes (i) a free end portion provided with a rotational force receiving portion for receiving a rotational force, (ii) a connection end portion provided with a rotational force transmitting portion for transmitting the rotational force to the developing roller, and (iii) a connecting portion connecting free end portion and the connection end portion.

77. A cartridge according to claim 76, wherein a maximum radius of at least a part of the connecting portion is shorter than a distance between the axis L2 of the coupling member and the rotational force receiving portion.