Claims

1. A bi-fold door assembly for assembling to a door frame assembly, the bi-fold door assembly comprising:

(a) a first door panel and a second door panel rotatably coupled together by a pivot mechanism;

(b) a first upper coupler for removably coupling the first door panel to the door frame assembly, the first upper coupler comprising:

(i) an upper component for removably coupling to the door frame assembly and comprising a receptacle; and

(ii) a lower component for removably coupling to the first door panel and comprising a protrusion moveable between a retracted position and an extended position, the protrusion arranged to swivel with respect to the receptacle;

(c) a first lower coupler for removably coupling to and supporting the first door panel, the first lower coupler comprising:

(i) an upper component for removably coupling to the first door panel; and

(ii) a lower component wherein the upper component is arranged to swivel with respect to the lower component; and

(d) a second upper coupler for removably coupling the second door panel to the door frame assembly, the second upper coupler arranged for moving the second door panel along the door frame assembly,

wherein the first upper and lower couplers are arranged for cooperatively rotating the first door panel relative to the door frame assembly;

wherein in the extended position, the protrusion engages the receptacle to couple the bi-fold door assembly to the door frame assembly, thereby enabling the first door panel to rotate relative to the door frame assembly; and

wherein in the retracted position, the protrusion disengages from the receptacle to decouple the bi-fold door assembly from the door frame assembly.

2. The bi-fold door assembly according to claim 1, wherein the lower component of the first upper coupler further comprises a biasing mechanism for biasing the protrusion towards the extended position.

3. The bi-fold door assembly according to claim 2, wherein the first door panel comprises a hole to access and thereby move the protrusion.

4. The bi-fold door assembly according to claim 2 or 3, wherein the first door panel comprises a mechanism configured for moving the protrusion towards the retracted position.

5. The bi-fold door assembly according to any one of claims 1 to 4, further comprising a second lower coupler for removably coupling to and supporting the second door panel, the second lower coupler arranged for guiding said moving of the second door panel along the door frame assembly.

6. The bi-fold door assembly according to claim 5, wherein the second lower coupler comprises:

an upper component for removably coupling to the second door panel; and

a lower component wherein the upper component is arranged to swivel with respect to the lower component, the lower component comprising a groove track for said guiding.

7. The bi-fold door assembly according to any one of claims 1 to 6, wherein the lower component of the first lower coupler is arranged for removably coupling to the door frame assembly or a floor and to support the first door panel on the door frame assembly or floor.

8. The bi-fold door assembly according to any one of claims 1 to 7, wherein the second upper coupler comprises a first roller and a second roller cooperative to move the second door panel along the door frame assembly, wherein the first roller

has a first axis and the second roller having a second axis, and wherein the first axis is offset from the second axis.

9. The bi-fold door assembly according to any one of claims 1 to 8, further comprising a magnetic part disposed at the pivot mechanism for magnetically attracting the door assembly to the door frame assembly.

10. A bi-fold door system comprising:

(A) a door frame assembly comprising an upper horizontal frame; and

(B) a bi-fold door assembly for assembling to the door frame assembly, the bi-fold door assembly comprising:

(a) a first door panel and a second door panel rotatably coupled together by a pivot mechanism;

(b) a first upper coupler removably coupled to the first door panel and the upper horizontal frame, the first upper coupler comprising:

(i) an upper component removably coupled to the upper horizontal frame and comprising a receptacle; and

(ii) a lower component removably coupled to the first door panel and comprising a protrusion moveable between a retracted position and an extended position, the protrusion arranged to swivel with respect to the receptacle;

(c) a first lower coupler removably coupled to the first door panel for supporting the first door panel, the first lower coupler comprising:

(i) an upper component removably coupled to the first door panel; and

(ii) a lower component wherein the upper component is arranged to swivel with respect to the lower component; and

(d) a second upper coupler for removably coupling the second door panel to the door frame assembly, the second upper coupler arranged for moving the second door panel along the door frame assembly,

wherein the first upper and lower couplers are arranged for cooperatively rotating the first door panel relative to the door frame assembly;

wherein in the extended position, the protrusion engages the receptacle to couple the bi-fold door assembly to the door frame assembly, thereby enabling the first door panel to rotate relative to the door frame assembly; and

wherein in the retracted position, the protrusion disengages from the receptacle to decouple the bi-fold door assembly from the door frame assembly.

11. The bi-fold door system according to claim 10, wherein the lower component of the first upper coupler further comprises a biasing mechanism for biasing the protrusion towards the extended position.

12. The bi-fold door system according to claim 11, wherein the first door panel comprises a hole to access and thereby move the protrusion towards the retracted position.

13. The bi-fold door system according to claim 11 or 12, wherein the first door panel comprises a mechanism configured for moving the protrusion towards the retracted position.

14. The bi-fold door system according to any one of claims 10 to 13, wherein the door frame assembly further comprises a lower horizontal frame.

15. The bi-fold door system according to claim 14, wherein the bi-fold door assembly further comprises a second lower coupler removably coupled to and supporting the second door panel on the lower horizontal frame, the second lower coupler arranged for guiding said moving of the second door panel along the lower horizontal frame.

16. The bi-fold door system according to claim 15, wherein the lower horizontal frame comprises a rib track for said guiding.

17. The bi-fold door system according to claim 16, wherein the second lower coupler comprises:

an upper component removably coupled to the second door panel; and

a lower component wherein the upper component is arranged to swivel with respect to the upper component, the lower component comprising a groove track for said guiding along the rib track.

18. The bi-fold door system according to any one of claims 14 to 17, wherein the lower component of the first lower coupler is removably coupled to and supporting the first door panel on the lower horizontal frame or on a floor.

19. The bi-fold door system according to any one of claims 10 to 18, wherein the second upper coupler comprises a first roller and a second roller cooperative to move the second door panel along the upper horizontal frame, wherein the first roller has a first axis and the second roller having a second axis, and wherein the first axis is offset from the second axis.

20. The bi-fold door system according to any one of claims 10 to 19, further comprising a magnetic mechanism disposed at the pivot mechanism and the upper horizontal frame, the magnetic mechanism configured for magnetically attracting the bi-fold door assembly to the door frame assembly.