Claims

1. An aerial distribution system for deploying items, comprising:

a bulk shipping container;

a plurality of deployment boxes within the bulk shipping container, each deployment box containing at least one item;

a plurality of tethers, each tether coupling a deployment box to the bulk shipping container; and

a freefall retarding device coupled to the bulk shipping container.

2. The aerial distribution system of claim 1, wherein the freefall retarding device is a canopy or a parachute.

3. The aerial distribution system of claim 1, further comprising a support structure coupled to the bulk shipping container.

4. The aerial distribution system of claim 3, wherein the support structure is a pallet.

5. The aerial distribution system of claim 3, wherein the freefall retarding device is coupled to the support structure.

6. The aerial distribution system of claim 3, wherein each tether couples a deployment box to the support structure.

7. The aerial distribution system of claim 3, wherein the support structure is adapted to be lifted by a forklift.

8. The aerial distribution system of claim 1, wherein, prior to deployment, the freefall retarding device is coupled to a bottom portion of the bulk shipping container.

9. The aerial distribution system of claim 1, wherein each deployment box contains a plurality of aerodynamic supply packs.

10. The aerial distribution system of claim 9, wherein each aerodynamic supply pack contains at least one item.

11. The aerial distribution system of claim 9, further comprising a supply pack dispersal assistance device positioned within each deployment box.

12. The aerial distribution system of claim 11, wherein the dispersal assistance device is at least one of a deflector, a pushing device, a film, and a divider.

13. The aerial distribution system of claim 1, wherein the tethers are fabric straps.

14. The aerial distribution system of claim 13, wherein each tethers is coupled to the associated deployment box by adhesive, bolts, rivets, brads, screws, nails, is incorporated into the bottom of the associated deployment box, or combinations thereof.

15. A method of deploying cargo from a vehicle, comprising the steps of:

loading a plurality of cargo-containing deployment boxes into a bulk shipping container;

coupling each deployment box to the bulk shipping container by a tether;

loading the bulk shipping container into the vehicle;

maneuvering the vehicle to a location of deployment;

expelling the bulk shipping container from the vehicle, wherein, subsequent to deployment, the bulk shipping container releases the plurality of deployment boxes, which, in-turn, release the cargo.

16. The method of claim 15, further comprising coupling a freefall retarding device to the bulk shipping container.

17. The method of claim 16, wherein, subsequent to deployment, the freefall retarding device forces the bulk shipping container upside down to release the plurality of deployment boxes.

18. The method of claim 17, wherein, the tethers force each deployment box upside down to release the cargo.

19. The method of claim 15, wherein the freefall retarding device is a canopy or a parachute.

20. The method of claim 15, wherein the cargo is a plurality of aerodynamic supply packs.

21. The method of claim 20, wherein each supply pack contains at least one item.

22. The method of claim 15, further comprising coupling the bulk shipping container to a support structure.

23. The method of claim 22, wherein the support structure is a pallet.

24. The method of claim 23, wherein the step of loading a bulk shipping container into the vehicle is completed with a forklift that engages the pallet.

25. The method of claim 15, wherein the vehicle is an airplane, drone, or a helicopter.

26. The method of claim 15, wherein there are a plurality of bulk shipping containers.

27. The method of claim 15, further comprising:

sealing the bulk shipping container prior to loading the bulk shipping container into the vehicle; and

unsealing the bulk shipping container at the deployment location.

28. The method of claim 15, wherein the plurality of deployment boxes remain coupled to the bulk shipping container through decent to the ground.

Claims

1. An aerial distribution system for deploying items, comprising:

a bulk shipping container;

a plurality of deployment boxes within the bulk shipping container, each deployment box containing at least one item;

a plurality of tethers, each tether coupling a deployment box to the bulk shipping container during storage and deployment of the bulk shipping container;

a freefall retarding device coupled to the bulk shipping container; and

wherein subsequent to deployment, each of the plurality of deployment boxes exits the bulk shipping container and empties the at least one item contained within each deployment box.

2. The aerial distribution system of claim 1, wherein the freefall retarding device is a canopy or a parachute.

3. The aerial distribution system of claim 1 or claim 2, further comprising a support structure coupled to the bulk shipping container.

4. The aerial distribution system of claim 3, wherein the support structure is a pallet.

5. The aerial distribution system of claim 3 or claim 4, wherein the freefall retarding device is coupled to the support structure.

6. The aerial distribution system of any one of claims 3 to 5, wherein each tether couples a deployment box to the support structure.

7. The aerial distribution system of any one of claims 3 to 6, wherein the support structure is adapted to be lifted by a forklift.

8. The aerial distribution system of any one of claims 1 to 7, wherein, prior to deployment, the freefall retarding device is coupled to a bottom portion of the bulk shipping container.

9. The aerial distribution system of any one of claims 1 to 8, wherein each deployment box contains a plurality of aerodynamic supply packs.

10. The aerial distribution system of claim 9, wherein each aerodynamic supply pack contains at least one item.

11. The aerial distribution system of claim 9 or claim 10, further comprising a supply pack dispersal assistance device positioned within each deployment box.

12. The aerial distribution system of claim 11, wherein the dispersal assistance device is at least one of a deflector, a pushing device, a film, and a divider.

13. The aerial distribution system of any one of claims 1 to 12, wherein the tethers are fabric straps.

14. The aerial distribution system of claim 13, wherein each tethers is coupled to the associated deployment box by adhesive, bolts, rivets, brads, screws, nails, is incorporated into the bottom of the associated deployment box, or combinations thereof.

15. A method of deploying cargo from a vehicle, comprising the steps of:

loading a plurality of cargo-containing deployment boxes into a bulk shipping container;

coupling each deployment box to the bulk shipping container by a tether;

loading the bulk shipping container into the vehicle;

maneuvering the vehicle to a location of deployment;

expelling the bulk shipping container from the vehicle, wherein, subsequent to deployment, the bulk shipping container releases the plurality of deployment boxes without uncoupling the plurality of deployment boxes from the bulk shipping container, which, in-turn, release the cargo.

16. The method of claim 15, further comprising coupling a freefall retarding device to the bulk shipping container.

17. The method of claim 16, wherein, subsequent to deployment, the freefall retarding device forces the bulk shipping container upside down to release the plurality of deployment boxes.

18. The method of claim 17, wherein, the tethers force each deployment box upside down to release the cargo.

19. The method of any one of claims 15 to 18, wherein the freefall retarding device is a canopy or a parachute.

20. The method of any one of claims 15 to 19, wherein the cargo is a plurality of aerodynamic supply packs.

21. The method of claim 20, wherein each supply pack contains at least one item.

22. The method of any one of claims 15 to 21, further comprising coupling the bulk shipping container to a support structure.

23. The method of claim 22, wherein the support structure is a pallet.

24. The method of claim 23, wherein the step of loading a bulk shipping container into the vehicle is completed with a forklift that engages the pallet.

25. The method of any one of claims 15 to 24, wherein the vehicle is an airplane, drone, or a helicopter.

26. The method of any one of claims 15 to 25, wherein there are a plurality of bulk shipping containers.

27. The method of any one of claims 15 to 26, further comprising:

sealing the bulk shipping container prior to loading the bulk shipping container into the vehicle; and

unsealing the bulk shipping container at the deployment location.