CLAIM(S)

1. A transfer device of a powder and granular material, comprising:

a chute that feeds the powder and granular material;

a first conveyor in a form of a belt conveyor or a bucket conveyor;

a hopper; and

a second conveyor, the first conveyor, the hopper and the second conveyor being sequentially disposed below the chute.

2. The transfer device according to claim 1, further comprising:

a dome-shaped member disposed above the first conveyor and covers the first conveyor.

3. The transfer device according to claim 1 or 2, wherein

the second conveyor is a screw conveyor.

4. The transfer device according to any one of claims 1 to 3, wherein

the hopper is provided below at least a feed position of a granular material from the chute to the first conveyor.

5. The transfer device according to claim 4, further comprising:

an air-suction unit provided to the first conveyor in a vicinity of a position at which the powder and granular material is fed from the chute.

6. The transfer device according to any one of claims 1 to 5, wherein

an inclination angle of an inner surface of the hopper is larger than a repose angle of the powder and granular material.

7. The transfer device according to any one of claims 1 to 6, wherein

the chute, the first conveyor, the hopper and the second conveyor are grounded.

8. The transfer device according to any one of claims 1 to 7, wherein

the powder and granular material is a pelletized hydrogenated petroleum resin.

CLAIM(S)

1. A transfer device, comprising:

a chute adapted to feed a powder and granular material;

a first conveyor in a form of a belt conveyor or a bucket conveyor, the first conveyor being provided below the chute and transferring the fed powder and granular material;

a hopper that is provided below the first conveyor and collects the powder and granular material dropped off from the first conveyor or scattered when being dropped onto the first conveyor; and

a second conveyor that is provided at a bottom of the hopper and transfers the powder and granular material collected by the hopper outside of the hopper.

2. The transfer device according to claim 1, further comprising:

a dome-shaped member disposed above the first conveyor, wherein the member covers the first conveyor.

3. The transfer device according to claim 1, wherein

the second conveyor is a screw conveyor.

4. The transfer device according to claim 1, wherein

the hopper is below at least a feed position of the powder and granular material from the chute to the first conveyor.

5. The transfer device according to claim 4, further comprising:

an air-suction unit disposed to the first conveyor in a vicinity of a position at which the powder and granular material is fed from the chute.

6. The transfer device according to claim 1, wherein

an inclination angle of an inner surface of the hopper is larger than a repose angle of the powder and granular material.

7. The transfer device according to claim 1, wherein

the chute, the first conveyor, the hopper and the second conveyor are grounded.

8. The transfer device according to claim 1, wherein

the powder and granular material comprises pellets and/or fragments, granules of

power of the pellets of a hydrogenated petroleum resin.

9. A transfer device comprising:

a chute configured to feed a powder and granular material onto a first conveyor;

a first conveyor in a form of a belt conveyor or a bucket conveyor operably positioned below the chute to receive the powder and granular material deposited on the first conveyor and transfer them to a loading chute or a storage portion;

one or more hopper(s) operably positioned below the first conveyor to collect the powder and granular material that overflow or drop off of the first conveyor; and

a second conveyor operably positioned at a bottom of the one or more hopper(s) to transfer the powder and granular material collected in the at least one hopper(s) outside of the hopper(s).

10. The transfer device of claim 9, further comprising a dome-shaped member disposed above the first conveyor, wherein the member covers the first conveyor.

11. The transfer device of claim 9, wherein the second conveyor is a screw conveyor.

12. The transfer device of claim 9, further comprising an air-suction unit disposed to the first conveyor in a vicinity of a position at which the powder and granular material is fed from the chute.

13. The transfer device of claim 9 which is configured to receive, transfer and collect a deposited material that comprises the powder and granular material of a hydrogenated petroleum resin.

14. A plant for producing hydrogenated petroleum resin pellets comprising means for producing hydrogenated petroleum pellets and the transfer device of claim 9.

15. The transfer device of claim 9, further comprising a material in the form of pellets and/or fragments, granules, or powder of the pellets.

16. A method for transferring a powder and granular material to a storage portion and separately transferring the powder and granular material that falls off a first conveyor to a hopper comprising:

depositing the powder and granular material into the chute of the transfer device of claim 9 and

transferring the powder and granular material falling on the first conveyor to a storage portion via the first conveyor and separately transferring the powder and granular material falling off the first conveyor into the one or more hopper(s).

17. The method of claim 16, wherein said powder and granular material is a hydrogenated petroleum resin.