CLAIMS

1. A trolley comprising:

a load plate on which an object is loaded;

a front wheel part including a front wheel support bent at a predetermined angle and shaft-coupled to the front of the lower portion of the load plate, and a first wheel and a second wheel provided at both ends of the front wheel support, respectively, to rotate along the rotational radius of the shaft and operated to be lifted off the ground by turns;

a rear wheel part including a rear wheel support bent at a predetermined angle and shaft-coupled to the rear of the lower portion of the load plate, and a third wheel and a fourth wheel provided at both ends of the rear wheel support, respectively, to rotate along the rotational radius of the shaft and operated to be lifted off the ground by turns; and

an actuation member linking the front wheel part and the rear wheel part through a gear coupling structure, and operatively connecting the front wheel part and rear wheel part,

wherein when encountering obstacles while traveling in a state of the first wheel and the fourth wheel being lifted off the ground and the second wheel and the third wheel being supported on the ground, the actuation member controls the first wheel and the second wheel to be rotated in a first direction around the shaft of the front wheel part such that the front wheel part crosses the obstacles, and controls the third wheel and the fourth wheel to be rotated in an opposite direction of the first direction around the shaft of the rear wheel part such that the third wheel is to be lifted off the ground and the fourth wheel is to be supported on the ground to allow the rear wheel part to cross the obstacles.

2. The trolley of claim 1, further comprising:

a movement auxiliary member between the load plate and the front wheel part,

wherein the movement auxiliary member includes:

a pinion gear provided in the shaft of the front wheel part and operatively connected with the actuation member; and

a rack gear provided in the lower portion of the load plate and engaged with the pinion gear to move the load plate forward or backward by a certain distance according to the rotation of the pinion gear,

wherein the pinion gear rotates in the clockwise or counterclockwise direction according to the operation of the actuation member, to move the load plate forward by a certain distance when the front wheel part crosses objects, and move the load plate backward by a certain distance when the rear wheel part crosses objects.

3, The trolley of claim 1, wherein the actuation member includes:

an operation part operating in a manual mode with a handle or in an electric mode with a motor.

4. The trolley of claim 1, wherein the actuation member includes:

a first gear part provided in the shaft of the rear wheel part;

an operation part connected with the first gear part to rotate the first gear part;

a second gear part provided in the shaft of the front wheel part; and

a shaft member transmitting the rotary power of the first gear part to the second gear part.

5. The trolley of claim 4, wherein the first gear part includes:

a first bevel gear provided in the shaft of the rear wheel part;

a second bevel gear engaged with the first bevel gear and connected with the operation part; and

a third bevel gear engaged with the first bevel gear and connected with the shaft member,

and

wherein the second gear part includes:

a fourth bevel gear provided in the shaft of the front wheel part; and

a fifth bevel gear engaged with the fourth bevel gear and connected with the shaft member.

6. A trolley comprising:

a load plate on which an object is loaded;

a front wheel part including a front wheel support bent at a predetermined angle and shaft-coupled to the front of the lower portion of the load plate, and a pair of wheels provided at both ends of the front wheel support, respectively, to rotate along the rotational radius of the shaft and be selectively seated on the ground and driven, while traveling;

a rear wheel part including a rear wheel support bent at a predetermined angle and shaft-coupled to the rear of the lower portion of the load plate, and a pair of wheels provided at both ends of the rear wheel support, respectively, to rotate along the rotational radius of the shaft and be selectively seated on the ground and driven, while traveling; and

an actuation member operatively connecting the pair of wheels of the front wheel part and the pair of wheels of the rear wheel part to be aligned with each other through a gear coupling structure and adjusting the position of at least one of the pair of wheels of the front wheel part.

7. A trolley comprising:

a load plate on which an object is loaded;

a front wheel part including a front wheel support bent at a predetermined angle and shaft-coupled to the front of the lower portion of the load plate, and a pair of wheels provided at both ends of the front wheel support, respectively, to rotate along the rotational radius of the shaft and be selectively seated on the ground and driven, while traveling;

a rear wheel part including a rear wheel support bent at a predetermined angle and shaft-coupled to the rear of the lower portion of the load plate, and a pair of wheels provided at both ends of the rear wheel support, respectively, to rotate along the rotational radius of the shaft and be selectively seated on the ground and driven, while traveling; and

an actuation member connecting the pair of wheels of the front wheel part and the pair of wheels of the rear wheel part to be aligned with each other through a gear coupling structure, and lifting the wheels that are seated on the ground off the ground among the pairs of wheels of the front wheel part and rear wheel part, to avoid obstacles, when encountering the obstacles.