CLAIMS

1. An engaging base assembly, comprising:

a seat plate assembly configured to receive an object thereon;

a locking mechanism including at least one locking member, the at least one locking member being disposed on the seat plate assembly and slidable between a first locked position and a first unlocked position, wherein when the at least one locking member is at the first locked position, the at least one locking member is capable of locking the object, and wherein when the at least one locking member is at the first unlocked position, the at least one locking member is capable of unlocking the object to enable the object to be separated from the seat plate assembly; and

at least one engaging channel configured to be engaged with at least one engaging member of the object, when the at least one locking member is at the first locked position, the at least one locking member extends into the at least one engaging channel to lock the at least one engaging member; and

wherein when the at least one locking member is at the first unlocked position, the at least one locking member retracts relative to the at least one engaging channel to allow the at least one engaging member to be removed from the at least one engaging channel.

2. The engaging base assembly according to claim 1, wherein the locking mechanism is mounted on the seat plate assembly, and the locking mechanism further includes at least one unlocking operating member, the unlocking operating member being connected to the at least one locking member, and the unlocking operating member being slidable between a second locked position and a second unlocked position; and

wherein when the unlocking operating member is at the second locked position, the at least one locking member is at the first locked position, and when the unlocking operating member is operated to move from the second locked position to the second unlocked position, the at least one locking member moves to the first unlocked position as the unlocking operating member moves.

3. The engaging base assembly according to claim 1, wherein the locking mechanism includes two first locking members, the two first locking members being connected by a linkage device, and wherein when any one of the first locking members is subjected to force and moves towards the first unlocked position, the linkage device drives another of the first locking members to move towards the first unlocked position synchronously.

4. The engaging base assembly according to claim 3, wherein:

the two first locking members are disposed on a same side of the seat plate assembly;

the two first locking members move in a same direction to switch to the first locked position

or the first unlocked position; or the two first locking members move in opposite directions to switch to the first locked position or the first unlocked position; and

the engaging base assembly further includes at least one elastic device, and the elastic device applying a force to each first locking member to move towards the first locked position.

5. The engaging base assembly according to claim 3, wherein the linkage device includes a linkage assembly connected between the two first locking members, and when any one of the first locking members is subjected to force and moves between the first unlocked position and the first locked position, the linkage assembly drives another of the first locking members to move synchronously between the first unlocked position and the first locked position.

6. The engaging base assembly according to claim 4, wherein the locking mechanism includes two second locking members, the two second locking members being disposed on another side of the seat plate assembly and are respectively parallel to the two first locking members; and wherein the two second locking members have a same configuration as the two first locking members.

7. The engaging base assembly according to claim 4, wherein the locking mechanism includes two second locking members, the two second locking members being disposed on another side of the seat plate assembly and are respectively parallel to the two first locking members; and wherein the two first locking members and the two second locking members are connected by the linkage device, and the linkage device allows the two first locking members and the two second locking members to move synchronously to the first unlocked position.

8. The engaging base assembly according to claim 1, wherein:

the locking mechanism includes at least one first locking member and at least one second locking member, a moving direction of the at least one first locking member being parallel to a moving direction of the at least one second locking member; and

one of the at least one first locking member and one of the at least one second locking member are positioned on a diagonal line and are connected by a linkage device, and the linkage device allows the first locking member and the second locking member that are connected to each other to move in opposite directions and synchronously switch to the first unlocked position.

9. The engaging base assembly according to claim 1, further comprising a retaining mechanism configured to retain the at least one locking member at the first unlocked position, wherein the retaining mechanism includes:

a touch button disposed on the seat plate assembly, the touch button being movable in a vertical direction relative to the seat plate assembly to allow at least a portion of the touch button to protrude upwardly relative to the seat plate assembly;

a buckling portion connected to the touch button; and

a reset member disposed between the touch button and the seat plate assembly, and configured to drive the touch button to move upwardly such that the touch button protrudes upwardly relative to the seat plate assembly;

wherein when the object is placed on the seat plate assembly, the touch button is pressed downwardly by the object, and the buckling portion moves downwardly along with the touch button; and

wherein when the at least one locking member moves from the first locked position to the first unlocked position, a retaining hook of the at least one locking member hooks the buckling portion, and the at least one locking member is retained at the first unlocked position.

10. The engaging base assembly according to claim 1, wherein:

the engaging base assembly is configured to be mounted on a frame; and

at least one unlocking operating member is mounted on the frame, and the at least one unlocking operating member is operably connected to the at least one locking member, and the at least one unlocking operating member is configured to drive the at least one locking member to move towards the first unlocked position.

11. The engaging base assembly according to claim 10, wherein the at least one unlocking operating member has an unlocking identification region, the unlocking identification region being configured to indicate that the at least one locking member is at the first locked position or the first unlocked position.

12. The engaging base assembly according to claim 10, wherein the frame includes at least one wheel seat configured to be fitted with a front wheel or a rear wheel, the at least one unlocking operating member slidably cooperates with the at least one wheel seat; and wherein the unlocking operating member is connected to the at least one locking member by at least one traction rope.

13. The engaging base assembly according to claim 10, wherein:

the locking mechanism includes at least two locking members, the at least two locking members being connected by a linkage device, and the linkage device allowing the at least two locking members to move synchronously to the first unlocked position; and

the frame is fitted with an unlocked state synchronization mechanism and at least two unlocking operating members, the at least two unlocking operating members being respectively connected to the at least two locking members, and the unlocked state synchronization mechanism allowing the at least two unlocking operating members to be synchronically in a state of unlocking the at least two locking members.

14. The engaging base assembly according to claim 1, wherein:

the seat plate assembly includes a first seat plate assembly and a second seat plate assembly;

the locking mechanism includes a first locking mechanism and a second locking mechanism, the first locking mechanism being disposed on the first seat plate assembly, the second locking mechanism being disposed on the second seat plate assembly, and each of the first locking mechanism and the second locking mechanism including the at least one locking member;

the first seat plate assembly and the second seat plate assembly are rotatable relative to each other about a rotation axis, such that the engaging base assembly has an unfolded state and a folded state; and

when the engaging base assembly is in the unfolded state, the engaging base assembly is adapted to support the object, and the at least one locking member is adapted to lock the object.

15. The engaging base assembly according to claim 14, wherein the seat plate assembly is mounted on a foldable connecting assembly, the connecting assembly including the rotation axis, an unfolded state of the connecting assembly corresponds to the unfolded state of the engaging base assembly, and a folded state of the connecting assembly corresponds to the folded state of the engaging base assembly.

16. The engaging base assembly according to claim 14, wherein:

the first seat plate assembly has at least one first engaging channel, each of which extends in a second direction, and the first locking mechanism has at least one first locking member, each of which moves in a first direction to switch to the first locked position or the first unlocked position;

when the first locking member is at the first locked position, the first locking member extends into the corresponding first engaging channel, and when the first locking member is at the first unlocked position, the first locking member retracts from the corresponding first engaging channel;

the second seat plate assembly has at least one second engaging channel, each of which extends in the second direction; and the second locking mechanism has at least one second locking member, each of which moves in the first direction to switch to the first locked position or the first unlocked position;

when the second locking member is at the first locked position, the second locking member extends into the corresponding second engaging channel, and when the second locking member is at the first unlocked position, the second locking member retracts from the corresponding second engaging channel; and

the first direction and the second direction are not parallel to each other.

17. The engaging base assembly according to claim 14, wherein:

the first seat plate assembly is connected to a first pivot base, the second seat plate assembly is connected to a second pivot base, the first pivot base and the second pivot base are pivotally connected to each other and the rotation axis is formed; and

a moving direction of the at least one locking member of the first locking mechanism, a moving direction of the at least one locking member of the second locking mechanism, and the rotation axis are parallel to one another.

18. The engaging base assembly according to claim 17, wherein:

the first seat plate assembly is mounted on a first support frame, and the first support frame is connected to the first pivot base;

the second seat plate assembly is mounted on a second support frame, and the second support frame is connected to the second pivot base; and

the first pivot base and the second pivot base are connected to a mounting base, and the mounting base is configured to be detachably connected to a frame.

19. A wheeled movable device, comprising a frame and the engaging base assembly according to any one of claims 1 to 18.