This configuration allows the placement part to be provided at a place convenient for an occupant of the vehicle.

[0019]

In the vehicle charging apparatus of the disclosure, the storage may comprise: a pair of body parts extending in a direction parallel to both sides of the vehicle; and a plurality of wheel support members provided in a direction perpendicular to the body parts in order to support each wheel of the vehicle in a front-rear direction of the vehicle, and a loading part of the carrier for being loaded with the vehicle to move to the storage may be formed with gaps through which the wheel support members pass in a vertical direction.

[0020]

This configuration allows for charging the vehicle to be stored even in an automated parking apparatus of a so-called comb type.

[0021]

An automated parking apparatus of the disclosure carries a vehicle to a specified floor by means of a carrier operable to move up and down, moves the vehicle from the carrier to a specified storage provided on the specified floor, and stores the vehicle in the storage, and the automated parking apparatus comprises: a charging part for being connected with a charging cable of the vehicle; a placement part provided on the carrier for connecting to the charging part; and a feeding part provided on the storage for connecting to the charging part and supplying power to the charging cable, where the charging part connects with the placement part when the vehicle is carried by the carrier, the charging part connects to the feeding part with the movement of the vehicle from the carrier to the storage, and the charging part is disconnected from the placement part after the connection of the charging part to the feeding part.

Advantage of the invention

[0022]

The disclosure allows for charging a stored vehicle even in the automated parking apparatus that transfers only vehicles from the carrier to the storages.

is moved with upward and downward movements of the carrier 30 relative to the parking room pallet 50, the disclosure is not limited to this. The carrier 30 and the parking room pallet 50 have just to move upward and downward relative to each other, and a vehicle 12 may be moved with upward and downward movements of the parking room pallet 50 relative to the carrier 30.

[0078]

While a description has been made for the embodiment on a mode in which a vehicle 12 moves in a front-rear direction when the vehicle 12 is stored in a storage 14, the disclosure is not limited to this. There may be a mode in which a vehicle 12 moves in a transverse direction, that is, a horizontal direction when the vehicle 12 is stored in a storage 14. In this mode, the charging box 62, the placement part 64, and the charging box receiving part 66 are placed so that the charging box 62 connects to the charging box receiving part 66 with the horizontal movement of the vehicle 12.

[0079]

While a description has been made for the embodiment on a mode in which the charging boxes 62 are placed in a specified position in the check-in and check-out room 24 and they are returned to the specified position when vehicles 12 are checked out, the disclosure is not limited to this. For example, there may be a mode in which a charging box 62 is provided for each vehicle 12 to be checked into the parking facility 10 and the owner of each vehicle 12 is in charge of each charging box 62. This mode is applied to, for example, vehicles 12 that are under monthly contract for the parking facility 10. On the other hand, there may be a mode in which the above mode is not applied to vehicles 12 that use hourly parking and the charging boxes 62 placed in the specified position are used for them.

DESCRIPTION OF THE SYMBOLS

[0080]

10: Parking facility

12: Vehicle