

CLAIMS

[Claim 1]

An operation unit exchange system, comprising:

an automatic guided vehicle,

a first operation unit and a second operation unit, and

an operation unit exchange station for removing the first operation unit attached to the automatic guided vehicle and attaching the second operation unit to the automatic guided vehicle.

~~[Claim 2]~~

~~—The operation unit exchange system according to claim 1, wherein~~

~~—the operation unit exchange station comprises:~~

a first operation unit affixation part to which the first operation unit is affixed,

a second operation unit affixation part to which the second operation unit is affixed,

a first support portion which partially supports the first operation unit affixation part,

a second support portion which partially supports the second operation unit affixation part,

and

a support part which supports the first support portion and the second support portion so as to be capable of individually raising and lowering them,

the first support portion and the second support portion are adjacent with each other.

a slit is formed in each of the first support portion and the second support portion,

widths of the slits are less than widths of the first operation unit affixation part and the second operation unit affixation part,

the widths of the slits are greater than a width of the automatic guided vehicle, and

a lower surface position of the support part is higher than a top part of the automatic guided vehicle.

~~[Claim-3]~~ 2

The operation unit exchange system according to ~~claim-2~~ 1, wherein in a state in which the first support portion, which supports the first operation unit affixation part, is in a predetermined raised position, the automatic guided vehicle moves to a position in the support part corresponding to the first support portion, and

the first support portion is lowered to a predetermined lowered position, and the first operation unit affixation part is attached to the automatic guided vehicle.

~~[Claim-4]~~ 3

The operation unit exchange system according to claim 21 or 32, wherein in a state in which the first support portion is lowered to a predetermined lowered position, the automatic guided vehicle to which the first operation unit affixation part is attached moves into the slit of the first support portion, and

the first support portion is raised to a predetermined raised position and the first operation unit affixation part is removed from the automatic guided vehicle.

[Claim-5 4]

The operation unit exchange system according to claim-4 3, wherein the automatic guided vehicle from which the first operation unit affixation part is removed moves to a position in the support part corresponding to the second support portion, and

the second support portion is lowered to a predetermined lowered position, and the second operation unit affixation part is attached to the automatic guided vehicle.

[Claim-6 5]

The operation unit exchange system according to any one of claims 21 to 5 4, wherein at a first predetermined time, the automatic guided vehicle to which the first operation unit affixation part is attached returns to the operation unit exchange station,

the operation unit exchange station removes the first operation unit affixation part from the automatic guided vehicle and attaches the second operation unit affixation part to the automatic guided vehicle, and

at a second predetermined time after the first predetermined time, the automatic guided vehicle to which the second operation unit affixation part is attached begins to travel.

[Claim-7 6]

An operation unit exchange station, comprising:

a first operation unit affixation part to which a first operation unit is to be affixed,

a second operation unit affixation part to which a second operation unit is to be affixed,

a first support portion which partially supports the first operation unit affixation part,

a second support portion which partially supports the second operation unit affixation part,

wherein the first support portion and the second support portion are adjacent with each other, and

a support part which supports the first support portion and the second support portion so as to be capable of individually raising and lowering them, wherein

a slit is formed in each of the first support portion and the second support portion,

widths of the slits are less than widths of the first operation unit affixation part and the second operation unit affixation part,

the widths of the slits are greater than a width of an automatic guided vehicle to which one of the first operation unit affixation part and the second operation unit affixation part is to be attached, and

a lower surface position of the support part is higher than a top part of the automatic guide vehicle.

[~~Claim-8~~ 7]

An operation unit exchange system, comprising:

a first automatic guided vehicle and a second automatic guided vehicle,

an operation unit, and

an operation unit exchange station for removing the operation unit, which is attached to the first automatic guided vehicle, and attaching it to the second automatic guided vehicle.

~~[Claim-9]~~

~~—The operation unit exchange system according to claim-8,~~ wherein the operation unit exchange station comprises:

an operation unit affixation part to which the operation unit is affixed,

a support portion which partially supports the operation unit affixation part, and

a support part for supporting the support portion so as to be capable of raising and lowering it, wherein

a slit is formed in the support portion,

a width of the slit is less than a width of the operation unit affixation part,

the width of the slit is greater than the widths of the first automatic guided vehicle and the second automatic guided vehicle, and

a lower surface position of the support part is higher than a top part of the first automatic guided vehicle and a top part of the second automatic guided vehicle.

[~~Claim-10~~ 8]

The operation unit exchange system according to ~~claim-9~~ 7, wherein in a state in which the support portion is lowered to a predetermined lowered position, the first automatic guided vehicle to which the operation unit affixation part is attached moves into the slit of the support portion,

the support portion is raised to a predetermined raised position and the operation unit affixation part is removed from the first automatic guided vehicle,

the first automatic guided vehicle exits from the slit of the support portion and the second automatic guided vehicle moves into the slit of the support portion, and

the support portion is lowered to a predetermined lowered position and the operation unit

affixation part is attached to the second automatic guided vehicle.

[Claim-~~11~~ 9]

The operation unit exchange system according to claim-~~10~~ 8, wherein a charge amount of the
5 second automatic guided vehicle is greater than a first predetermined value, and

a charge amount of the first automatic guided vehicle is less than a second predetermined
value, which is less than the first predetermined value.