present invention.

FIG. 4 is a front view of a support unit according to a third embodiment of the present invention.

FIG. 5 is a front view of a support unit according to a fourth embodiment of the present invention.

FIG. 6 is a front view of a support unit according to a fifth embodiment of the present invention.

FIG. 7 is a front view of a support unit according to a sixth embodiment of the present invention.

FIG. 8 is a front view of a support unit according to ~~the sixth embodiment~~the seventh embodiment of the present invention.

FIG. 9 is a front view of a support unit according to ~~the sixth embodiment~~the eighth embodiment of the present invention.

FIG. 10 is a front view of a support unit according to ~~the sixth embodiment~~the ninth embodiment of the present invention.

EMBODIMENTS OF THE INVENTION

[0024]

<First Embodiment>

Hereinafter, a first embodiment of a support unit 1 and a guide-track transportation system T according to the present invention will be explained with reference to FIG. 1 and FIG. 2.

FIG. 1 is a cross-sectional view in which an overview of the guide-track transportation system T according to the present invention is viewed from a travelling direction of a vehicle 100.

words, the cable C is suspended so as to be perpendicular to the cable support ~~32~~30 when viewed from above.

[0050]

In this manner, the cable C is supported by the bracket 32, and thereby, it is possible to reduce man-hours and cost of ancillary facilities for accommodating the cables C. That is, it is possible to reduce man-hours for laying the guide track 99.

[0051]

<Fourth Embodiment>

Next, a fourth embodiment of the present invention will be explained with reference to FIG. 5. In addition, with respect to the same configurations as in each of the above-described embodiments, the same reference numerals are used and detailed explanations thereof are omitted.

[0052]

In the present embodiment, a support unit 4 includes an extension portion 32B extending obliquely in a direction away from a connecting portion 11C from the portion of a second flange 11B side of a fixed portion 32A of a bracket 32.

[0053]

Since the extending portion 32B is provided at the portion of the second flange 11B side of the fixed portion 32A, a first fixing portion 17 provided on a first flange 11A side of a guide rail 11 and the extending portion 32B of ~~the guide rail 11~~the bracket 32 do not interfere with each other. More specifically, it is possible to provide a locked portion 61 of the first fixing portion 17 without interference with the bracket 32. Accordingly, it possible to easily fix the guide rail 11 on a base portion 91; and therefore, it is possible to reduce construction man-hours.

[0054]

is inserted. The elongated hole 24D penetrates the first extending portion 42B in the lateral direction and is formed in an oval shape extending along a height direction of the first extending portion 42B.

In addition, the guide rail 11 according to the present embodiment has a through-hole that has a circular shape and into which the bolt 24B is inserted at a position on the first flange 11A and at the position corresponding to ~~the elongated hole 24C and~~ the elongated hole 24D described above. More particularly, the through-hole is provided to penetrate a surface located above the connecting portion 11C of the first flange 11A in the lateral direction.

[0060]

According to this configuration, it is possible to finely adjust the position of the bracket 42 in the height direction by the jack bolt 24A and to finely adjust the position of the bracket 42 in the lateral direction of the vehicle 100 by the bolt 24B.

[0061]

Accordingly, even when a changing request of a relative position of the power rails 20 relative to the guide rail 11 from the initial-defined position occurs, it is possible to easily accommodate this change by adjusting the fixing position of the bracket 42 relative to the guide rail 11.

[0062]

<Eighth Embodiment>

Next, an eighth embodiment of the present invention will be explained with reference to FIG. 9. In addition, with respect to the same configurations as in each of the above-described embodiments, the same reference numerals are used and detailed explanations thereof are omitted.

[0063]

CLAIMS

1. A power rail-support unit, comprising:

a base portion that is integrally fixed on a track;

a guide rail on which a guide wheel of a side portion of a vehicle travelling on the track abuts;

a first fixing portion that is configured to fix the guide rail on the base portion;

a second fixing portion that is connected to the guide rail so as to be independent of the first fixing portion;

a bracket that is supported on the guide rail; and

a power rail that is supported by the bracket so as to be arranged at a predetermined relative position relative to the guide rail, and that slides on and makes contact with a collector of the vehicle.

2. The power rail-support unit according to Claim 1, wherein

the predetermined relative position is determined based on the positional relationship between the guide wheel and the power rail of the vehicle.

3. The power rail-support unit according to Claim 1 or 2, wherein

the bracket has a cable support portion that supports a cable.

4. The power rail-support unit according to any one of Claims 1 to 3, wherein

the bracket and an insulator are integrally formed of an insulating member, and

the power rail is fixed and supported by the guide rail with the insulating member being interposed therebetween.

5. The power rail-support unit according to any one of Claims 1 to 4, wherein the guide rail includes:

a first flange that is fixed on the base portion by the first fixing portion;

a second flange that is disposed so as to face the first flange and on which the guide wheel is in contact; and

a connecting portion that connects the first flange and the second flange between the first flange and the second flange, and

the bracket includes:

a fixed portion that is fixed to the connecting portion by the second fixing portion, and

an extending portion that extends in a direction away from the connecting portion from the portion of the second flange side of the fixed portion.

6. The power rail-support unit according to any one of Claims 1 to 5, wherein the second fixing portion is configured to be capable of adjusting the fixing portion of the bracket relative to the guide rail so as to be capable of finely adjusting the fixing portion of the power rail from the relative position.

7. The power rail-support unit according to any one of Claims 1 to 6, wherein

a spacer is provided that is configured to finely adjust the fixing portion of the power rail from the relative position by being interposed between the guide rail and the bracket.

8. A guide-track transportation system, comprising:

the power rail-support unit according to any one of Claims 1 to 7; and

a vehicle.

5

CLAIMS

1. A power rail-support unit, comprising:

a base portion that is integrally fixed on a track;

a guide rail on which a guide wheel of a side portion of a vehicle travelling on the track abuts;

a first fixing portion that is configured to fix the guide rail on the base portion;

a second fixing portion that is connected to the guide rail so as to be independent of the first fixing portion;

a bracket that is supported on the guide rail; and

a power rail that is supported by the bracket so as to be arranged at a predetermined relative position relative to the guide rail, and that slides on and makes contact with a collector of the vehicle,

wherein the guide rail includes:

a first flange that is fixed on the base portion by the first fixing portion;

a second flange that is disposed so as to face the first flange and on which the guide wheel is in contact; and

a connecting portion that connects the first flange and the second flange between the first flange and the second flange, and

wherein the bracket includes:

a fixed portion that is fixed to the connecting portion by the second fixing portion, and

an extending portion that extends in a direction away from the connecting portion from the portion of the second flange side of the fixed portion.

2. The power rail-support unit according to Claim 1, wherein the bracket has a cable support portion that supports a cable.

3. The power rail-support unit according to Claim 1 or 2, wherein the bracket and an insulator are integrally formed of an insulating member, and the power rail is fixed and supported by the guide rail with the insulating member being interposed therebetween.

4. The power rail-support unit according to any one of Claims 1 to 3, wherein a spacer is provided that is configured to finely adjust the fixing portion of the power rail from the relative position by being interposed between the guide rail and the bracket.

5. The power rail-support unit according to any one of Claims 1 to 4, wherein the predetermined relative position is determined based on the positional relationship between the guide wheel of the vehicle and the power rail.

6. The power rail-support unit according to any one of Claims 1 to 5, wherein the second fixing portion is configured to be capable of adjusting the fixing portion of the bracket relative to the guide rail so as to be capable of finely adjusting the fixing portion of the power rail from the relative position.

7. A guide-track transportation system, comprising:
the power rail-support unit according to any one of Claims 1 to 6; and
a vehicle.