[0010]

For this reason, in the branching device, it is unnecessary to install the central guide rail on the portion at which the central position of the far side main line travel track in the travel track width direction intersects the branch line travel track or the portion at which the central position of the branch line travel track in the travel track width direction intersects the far side main line travel track, and the central guide rail is not installed on these portions. Accordingly, in the branching device, even when the travel track and the central guide rail are shifted in one body, interference between the central guide rail and the travel track can be avoided.

[0011]

As described above, in the branching device, since the travel track need not be shifted, it is unnecessary to install a shiftable travel track. Furthermore, the switching mechanism can be made small, and the energy consumption of the switching mechanism can be reduced. As a result, according to the branching device, the initial cost and running cost thereof can be reduced.

[0012]

According to a second aspect of the present invention, in the branching device, the switching ~~device~~mechanism shifts at least a part of each of the branch line side guide rail and the main line side guide rail to realize the branch line guide position and the main line guide position. Further, the switching ~~device~~mechanism may shift the pair of branch guide wheels in a vehicle width direction to achieve the branch line guide position and the main line guide position.

[0013]

Further, according to a third aspect of the present invention, in the branching device, a distance between the traveling near side end of the

line travel track Rc by the main line side guide rail 20b ~~and~~or the branch line side guide rail 20c. For this reason, the central guide rail 10 need not be installed at the portion b at which the central position of the far side main line travel track Rb in the travel track width direction intersects the branch line travel track Rc or at the portion c at which the central position of the branch line travel track Rc in the travel track width direction intersects the far side main line travel track Rb, and the central guide rail 10 is not installed at these portions. For this reason, in the present embodiment, as in the related art, even when the travel track and the central guide rail are not shifted in one body at the traveling far side with respect to the branch starting position BC, interference between the far side central guide rail 10b and the branch line travel track Rc, and between the branch line central guide rail 10c and the far side main line travel track Rb can be avoided.

[0072]

As described above, in the present embodiment, since it is unnecessary to shift the travel track R, there is no need to install a shiftable travel track R. Furthermore, the switching mechanism 40 can be made small, and the energy consumption of the switching mechanism 40 can be reduced. As a result, in the present embodiment, the initial cost and running cost of the branching device D can be reduced.

[0073]

Next, a layout and dimensional relation of each rail will be described.

[0074]

As shown in FIG. 8, length dimensions of the branch line movable rail 25c and the main line movable rail 25b in the direction along the travel track are defined as X_1. Further, length dimensions of

[0090]

Further, in the present embodiment, as described above, it is unnecessary to shift the travel track R of the branch part, and the initial cost and running cost of the branching device D can be reduced.

[0091]

In the above embodiment, the branch line side guide rail 20c and the main line side guide rail 20b are shifted, thereby realizing the main line guide position MP and the branch line guide position BP. However, the entire branch line side guide rail 20c and the entire main line side guide rail 20b are immovable relative to the travel track R, and the pair of branch guide wheels 7 is shifted. Thereby, the main line guide position MP and the branch line guide position BP may be realized. In this case, in the vicinity of the branch part, a link relation between the guide rod 8 on which the pair of branch guide wheels 7 are installed and the travel wheels 3 is released, and directly in front of the branch part, the branch guide wheel 7 is located at one of the branch line guide position BP at which it can be engaged with the branch line side guide rail 20c and the main line guide position MP at which it can be engaged with the main line side guide rail 20b by the switching mechanism installed on the track vehicle V, and then the link relation between the guide rod 8 and the travel wheels 3 is restored.

[Industrial Applicability]

[0092]

According to the present invention, it is unnecessary to shift the travel track and to install the shiftable travel track. Furthermore, the switching mechanism can be made small, and thereby the energy consumption of the switching mechanism can be reduced.

[Description of Reference Numerals]

[0093]

engaged with the main line side guide rail and the branch guide wheel of the one side is unable to be engaged with the branch line side guide rail;

a near side central guide rail which is the central guide rail of the near side main line travel track, and which is configured so that, at a traveling-direction near side with respect to a portion at which a central position of the far side main line travel track in a travel track width direction crosses the branch line travel track, and a traveling far side with respect to the branch starting position is set as a traveling far side end;

a far side central guide rail which is the central guide rail of the far side main line travel track, and which is configured so that a traveling far side with respect to a portion at which the central position of the far side main line travel track in the travel track width direction crosses the branch line travel track is set as a traveling near side end; and

a branch line central guide rail which is the central guide rail of the branch line travel track, and which is configured so that a traveling far side with respect to a portion at which the central position of the branch line travel track in the travel track width direction crosses the far side main line travel track is set as a traveling near side end.

2. The branching device according to claim 1, wherein the switching ~~device~~mechanism shifts at least a part of each of the branch line side guide rail and the main line side guide rail to realize the branch line guide position and the main line guide position.

3. The branching device according to claim 1 or 2, wherein a distance between the traveling near side end of the far side central