What is claimed is:

1. An article conveying system that transports an article by means of an overhead carrier traveling along a transport track,

the article conveying system including a pair of outer and inner traveling rails along the transport track on a ceiling of the article conveying system,

the overhead carrier including outer and inner driving wheels that are rotatably supported by the outer and inner traveling rails in a drivable manner so as to move the overhead carrier along the outer and inner traveling rails, and outer and inner non-driving wheels that are rotated separately from the outer and inner driving wheels,

the overhead carrier having the outer and inner driving wheels and the outer and inner non-driving wheels on each of left and right of a transport direction, respectively,

the transport track including a linear section in which the outer and inner driving wheels on left and right sides of the overhead carrier are respectively supported by the pair of outer and inner traveling rails,

the transport track including a curved section in which the inner non-driving wheel of the overhead carrier is supported by the inner traveling rail while the outer driving wheel of the overhead carrier is supported by the outer traveling rail.

2. The article conveying system according to claim 1, wherein a portion of the curved section of the transport track includes an outer traveling-rail disconnected section where the outer traveling rail is disconnected,

the overhead carrier includes outer and inner auxiliary driving wheels provided on the left and right of the transport direction of the overhead carrier so as to rotate with the outer and inner driving wheels, the outer and inner auxiliary driving wheels having a smaller diameter than the outer and inner driving wheels, and the inner auxiliary driving wheel of the overhead carrier is supported by the inner traveling rail in corresponding with the outer traveling-rail disconnected section of the curved section of the transport track.

3. The article conveying system according to claim 1, wherein the outer and inner driving wheels and the outer and inner non-driving wheels have different diameters, respectively, and

the pair of outer and inner traveling rails in the curved section of the transport track has steps on surfaces of the outer and inner traveling rails such that the inner traveling rail separates from the inner driving wheel while supporting the inner non-driving wheel and the outer traveling rail supports the outer driving wheel.

4. The article conveying system according to claim 2, wherein the outer and inner driving wheels, the outer and inner non-driving wheels, and the outer and inner auxiliary driving wheels have different diameters, respectively,

the pair of outer and inner traveling rails has steps on surfaces of the outer and inner traveling rails in portions of the curved section of the transport track other than the outer traveling-rail disconnected section such that the inner traveling rail separates from the inner driving wheel and the inner auxiliary driving wheel while supporting the inner non-driving wheel and the outer traveling rail separates from the

outer auxiliary driving wheel while supporting the outer driving wheel, and

the inner traveling rail, while corresponding with the outer traveling-rail disconnected section, has the steps on the surface of the inner traveling rail such that the inner traveling rail separates from the inner driving wheel while supporting the inner auxiliary driving wheel.

5. The article conveying system according to claim 2, wherein the outer and inner driving wheels, the outer and inner non-driving wheels, and the outer and inner auxiliary driving wheels have coaxial rotation axes, respectively, and the outer and inner non-driving wheels are respectively disposed between the outer and inner driving wheels and the outer and inner auxiliary driving wheels.

6. An overhead carrier that travels along a pair of outer and inner traveling rails provided along a transport track on a ceiling of an article conveying system,

the overhead carrier including outer and inner driving wheels that are rotatably supported by the outer and inner traveling rails in a drivable manner so as to move the overhead carrier along the outer and inner traveling rails, and outer and inner non-driving wheels that are rotated separately from the outer and inner driving wheels, the outer and inner driving and non-driving wheels being respectively disposed on each of left and right of a transport direction,

the pair of outer and inner traveling rails supporting the respective outer and inner driving wheels in a linear section of the transport track, the outer traveling rail only

supporting the outer driving wheel in a curved section of the transport track,

the inner traveling rail supporting the inner non-driving wheel in the curved section of the transport track.