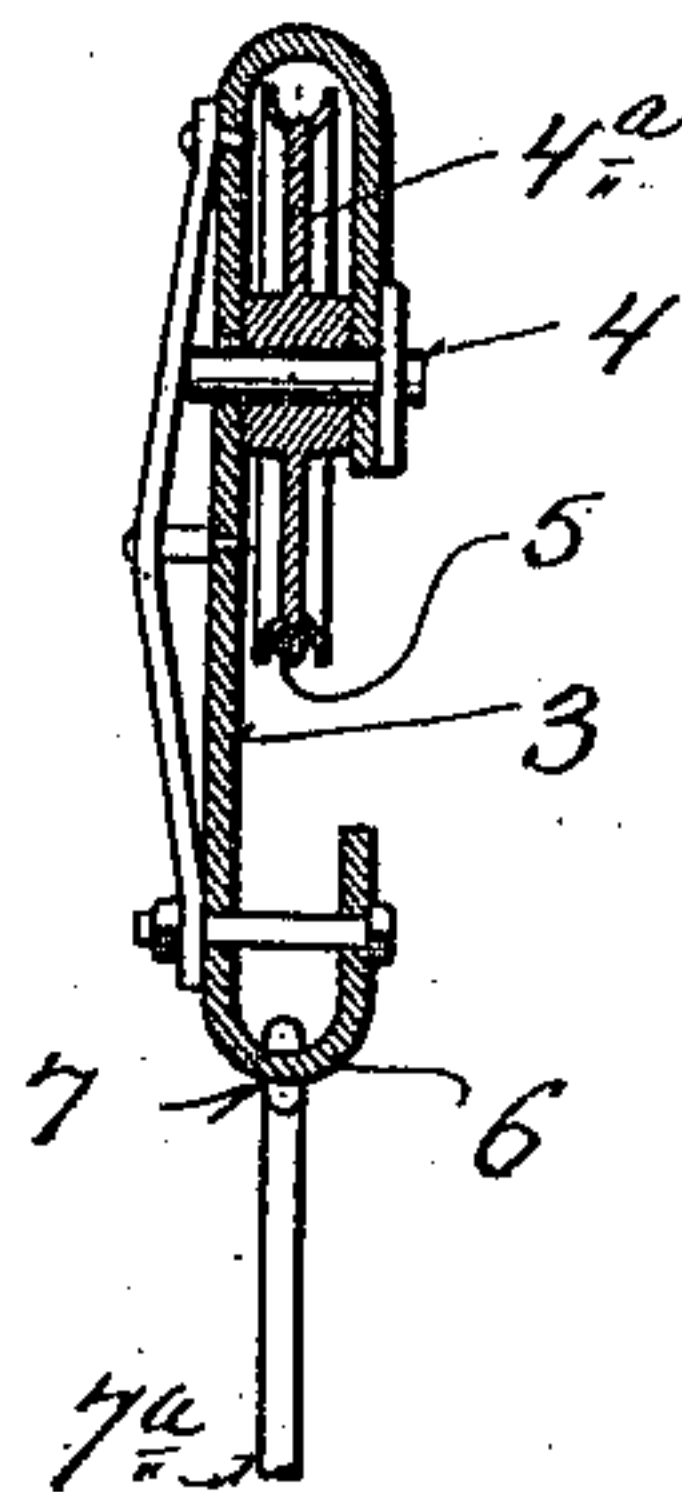
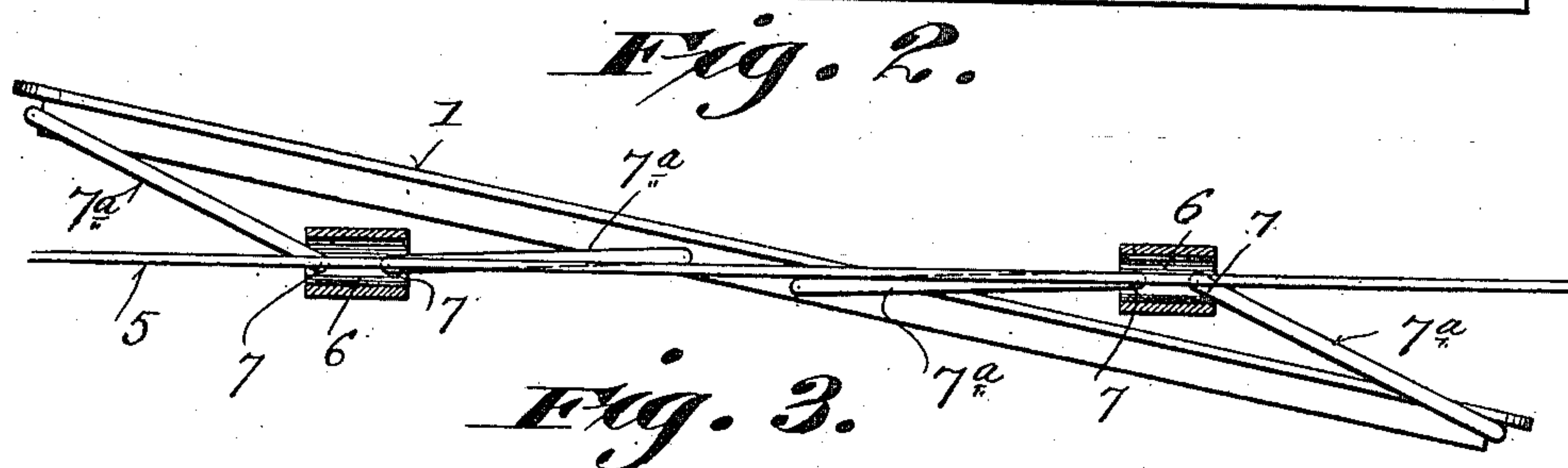
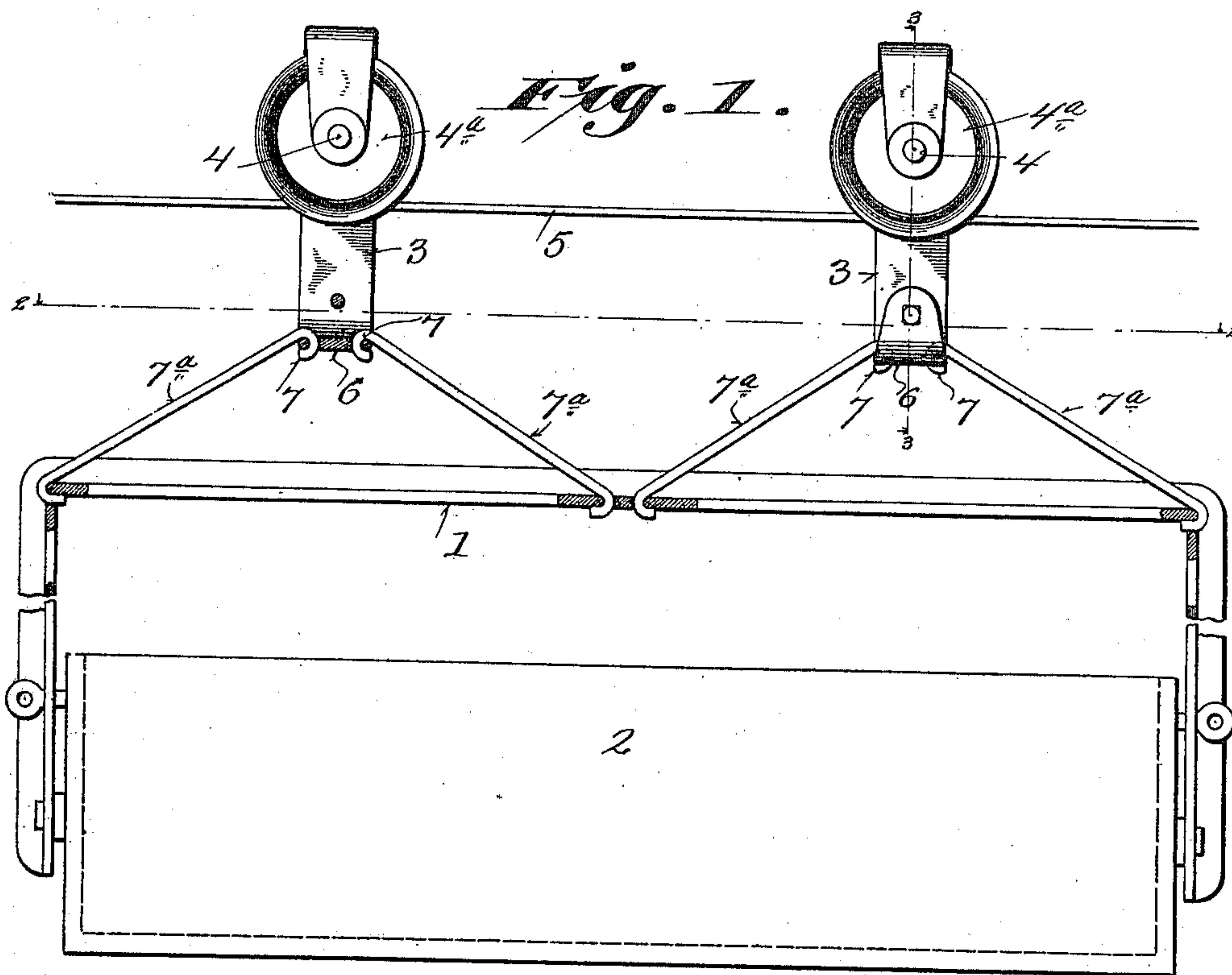


H. H. DREW.
ELEVATED CARRIER.
APPLICATION FILED SEPT. 2, 1910.

976,157.

Patented Nov. 22, 1910.



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UNITED STATES PATENT OFFICE.

HERBERT H. DREW, OF WATERLOO, WISCONSIN.

ELEVATED CARRIER.

976,157.

Specification of Letters Patent. Patented Nov. 22, 1910.

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To all whom it may concern:

Be it known that I, HERBERT H. DREW, a citizen of the United States, and resident of Waterloo, in the county of Jefferson and State of Wisconsin, have invented certain new and useful Improvements in Elevated Carriers; and I do hereby declare that the following is a full, clear, and exact description thereof.

10 The object of my invention is to provide a simple, effective and economically constructed trolley mechanism for carriers or the like, the construction and arrangement being such that pairs of oppositely disposed
15 oblique suspension-rods spaced apart and connected to a rigid load-supporting beam and trolley-supported hangers insure the trolleys being automatically held in perfect alinement with the track upon which they
20 are adapted to travel, whereby side play is eliminated. Thus the flanges of the trolleys are held from frictional contact with the track and as a result said trolleys are insured from climbing or jumping said track,
25 while, at the same time, detrimental wear upon the parts, due to side play, is eliminated with consequent retardation of speed. Furthermore, by this peculiar arrangement of the load-suspension device, swing of the
30 load from perfect alinement with the track is overcome. This is due to the fact that any twist or side play of the load will cause torsion of the oblique rods and consequently the load will act to automatically return the
35 said rods from their twisted position to alinement, while at the same time the oblique arrangement of the rods with relation to the load serves to hold the trolleys and hangers rigidly in a lateral direction and
40 thus retardation of the speed caused through back draft or drag imparted to the trolleys through momentum of the load is eliminated.

45 With the above objects in view the invention consists in certain peculiarities of construction and combination of parts as set forth hereinafter with reference to the accompanying drawings and subsequently claimed.

50 In the drawings Figure 1 represents a side elevation of an overhead carrier having trolleys embodying the features of my invention mounted upon a portion of a suspended track; Fig. 2, a detail plan sectional
55 view of the same as indicated by line 2—2 of Fig. 1, in which view the load-supporting

beam is shown deflected to more clearly illustrate the abnormal position assumed by the load-suspension rods when the carrier is twisted, and Fig. 3, a detail cross-section of the trolley mechanism as indicated by line 3—3 of Fig. 1.

Referring by characters to the drawings, 1 represents a load-supporting beam to which is trunnioned a hopper 2, the same constituting a carrier and is adapted to be locked with relation to the beam by means of any suitable mechanism, not shown, the hopper and its connections in this instance forming no part of my invention.

70 The hangers 3 carry trunnions 4, upon which are mounted trolley-wheels 4^a, which trolley-wheels, as illustrated, are supported upon the usual wire 5 that constitutes an overhead track. The base 6 of each hanger is provided with apertures that are spaced apart upon opposite sides of an imaginary line drawn through the trolley-wheel axes and swiveled in these apertures are hooked ends 7 of oppositely disposed oblique suspension rods 7^a, lower hooked ends of the suspension rods being swiveled in apertures with which the beam 1 is provided. By the swivel connections and arrangement of the suspension-rods, it will be seen that the load will automatically hold the trolleys in their proper vertical positions with relation to the beam 1, the pulleys having absolutely no end-sway and will stand in rigid connection with the beam in a longitudinal direction, thus making the carrier responsive, the flexibility obtained by the shackle connection in a lateral direction having no effect upon the rigidity longitudinally.

95 When the carrier is started upon its travel, should the load be swayed to one side by momentum, this movement will not affect the position of the wheels upon the track as they will readily adapt themselves to a straight or curved track owing to the flexibility of the connection and the torsion or twist of the suspension-rods will permit play of the load without affecting the wheel alinement. Thus the wheels will center upon the track so perfectly that they will run thereon without causing their flanges to contact with the wire and thus friction is avoided, it being practically impossible to throw the wheels from the track by side twist of the load, wheel-guards or catches being thereby eliminated. The trolley-wheels, furthermore, are free to oscillate

and adjust themselves to any position by tipping and swinging in such a manner that the track is centered in the groove of the wheels in their correct running position at all times. Furthermore, by utilizing the suspension device just described, I am enabled to eliminate springs, swivel-pins and various adjusting devices and, owing to the fact of the perfect alinement obtained, the load will travel a greater distance under the impetus of a given power and run smoothly, the device being of such simplicity that it will withstand the greatest degree of usage without wear and is safe to operate, while, at the same time, the arrangement of suspension-rods will cause the device to automatically return to alinement under the track, should the load be deflected by inexperienced operators. It will be also observed that the suspension-rods may be readily disconnected, as well as the other parts, for shipment, the same being capable of ready assemblage by those unskilled in mechanics, the essential feature of the invention, as explained in detail, being the arrangement of the suspension-rods, whereby they are connected in oblique pairs to hangers and spaced apart with relation to the center of the hanger with their opposite ends connected to a load-supporting beam, the connection between the beam and hangers being flexible or shackled, whereby yield is had in a lateral direction.

I claim:

1. A carrier suspension device for overhead tracks comprising a pair of independent hangers having trolley-wheels mounted therein, a load-supporting beam, and pairs of suspension-rods, those in each pair being angularly disposed with relation to each other and having their converging ends spaced apart in yielding connection with a hanger, the diverging ends of said rods being in yielding connection with said beam.

2. A carrier suspension device for overhead tracks comprising a pair of independent hangers having trolley-wheels mounted therein, the hangers being provided at their respective bases with apertures that are spaced apart, a load-supporting beam having pairs of apertures therein, a hopper carried by the beam, and pairs of suspension-rods having hook ends, each pair of rods being angularly disposed with relation to each other with their hook ends fitted in the apertures of a hanger and their opposite ends hooked in the apertures of the supporting beam.

In testimony that I claim the foregoing I have hereunto set my hand at Waterloo in the county of Jefferson and State of Wisconsin in the presence of two witnesses.

HERBERT H. DREW.

Witnesses:

E. M. SNOW,
T. A. WILLIAMS.