

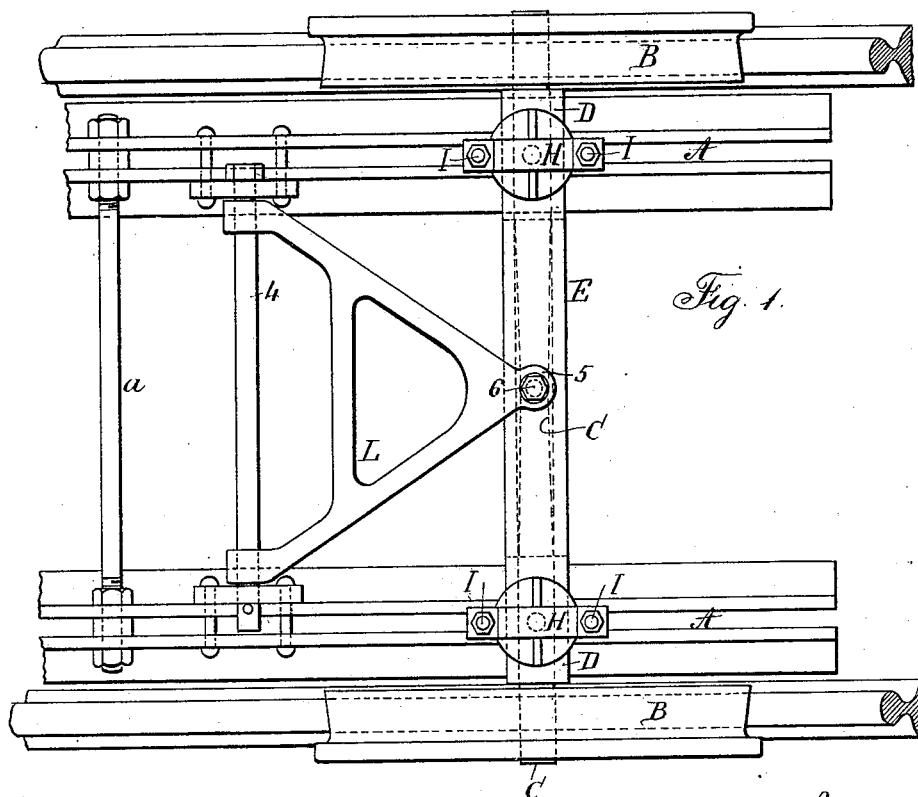
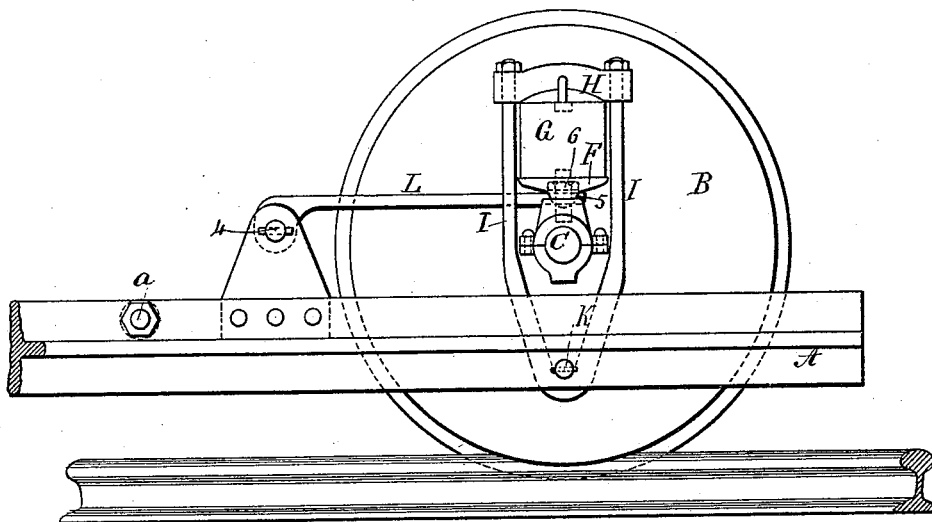
C. W. HUNT.

CAR TRUCK.

No. 347,936.

Patented Aug. 24, 1886.

Fig. 2.



Witnesses:
J. Staib
Chas. H. Smith

Inventor
Charles W. Hunt
per Samuel W. Ferrell atty

(No Model.)

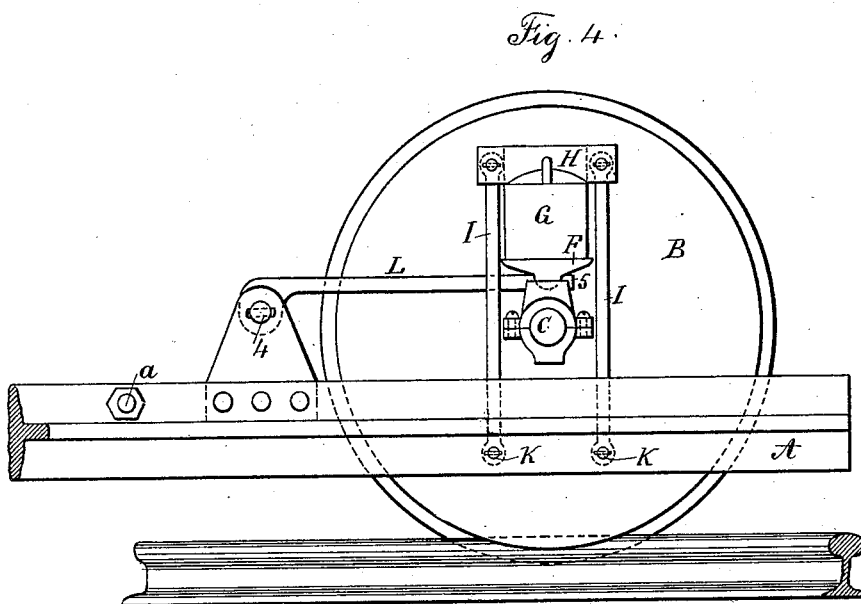
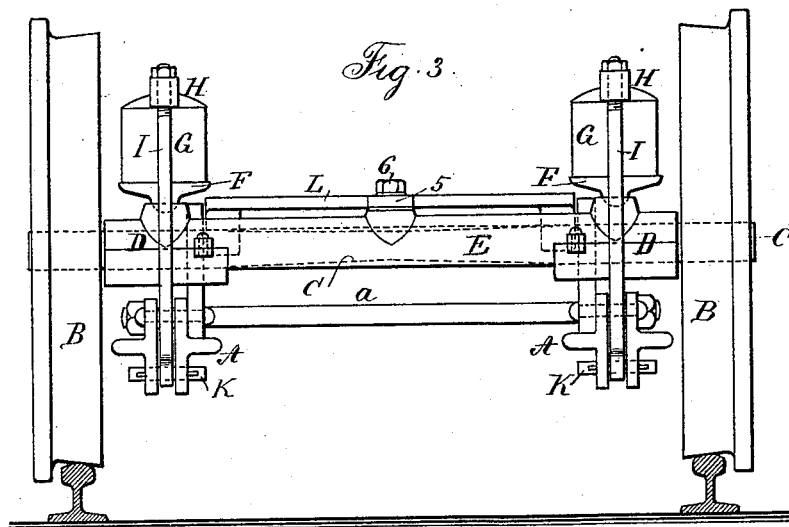
2 Sheets—Sheet 2.

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UNITED STATES PATENT OFFICE.

CHARLES W. HUNT, OF WEST NEW BRIGHTON, ASSIGNOR TO THE C. W.
HUNT COMPANY, OF NEW YORK, N. Y.

CAR-TRUCK.

SPECIFICATION forming part of Letters Patent No. 347,936, dated August 24, 1886.

Application filed June 4, 1886. Serial No. 204,120. (No model.)

To all whom it may concern:

Be it known that I, CHARLES W. HUNT, of West New Brighton, in the county of Richmond and State of New York, have invented an Improvement in Car-Trucks, of which the following is a specification.

In Letters Patent No. 256,571, granted to me April 18, 1882, I have shown car-trucks that are adapted to swivel and conform to the curvature of the rails. The present invention is an improvement upon the same.

My present improvements are especially adapted to freight-cars and coal-cars in which there are two pairs of wheels beneath the car, the axle of one pair of wheels being separately connected from the axle of the other pair of wheels.

In my present improvements each axle is provided with a cross-bearer with journal-boxes at its ends, and from the followers that rest upon the springs or bearings there are suspending-links to the frame of the car, and these links are pivoted so that the axle is free to be turned into a slightly diagonal position to the car-frame in running around curves, and I provide a triangular frame pivoted at two of its angles to the car-frames, and at the third angle there is a pivot-bolt that connects it to the cross-bearer, having at its ends the journal boxes or bearings of the axle. By this construction the triangular frame swings vertically upon two of its pivots as the car-springs are compressed more or less, and the third pivot of the triangular frame steadies the cross-bearer and axle and maintains the same in the proper position; but it allows the axle to swing and assume a position that is in the line of the radius, or nearly so, of the curved track when running upon the same.

In the drawings, Figure 1 is a plan view showing my improvements applied at one end of a car-frame. Fig. 2 is a side elevation, with one wheel removed. Fig. 3 is a front elevation, and Fig. 4 is a separate elevation, of the bearing with two pivoted suspending-rods.

The frame A is to be of either wood or metal, and there are suitable cross-bars or tie-bolts, *a*. The car-wheels B are of any desired character, preferably with the flanges on the outer edges of the wheels, as in my aforesaid patent.

C is the axle uniting two of the wheels, and this axle passes through journal-boxes near the ends of the cross-bearer E, and such cross-bearer is usually in the form of a half-tube above the axle.

Over the journal-boxes D are the followers F, with rubber springs G above them, and H are the head-bars above the rubber springs, and I are the links passing down from the head-bars to the frame A. The followers F form bearings between the head-bars and the journal-boxes, and the contact-surfaces should be rounding, as shown, and in cases where the springs are dispensed with the bearings F will be at the under sides of the head-bars H.

In some forms of cars the links I are double and pass down beneath the cross-bolt K, that passes through the frame A, or through a casting therewith connected, as seen in Fig. 2; but in other cases there will be two links, I, pivoted to each head-bar H, as seen in Fig. 4, said links being parallel to each other, and each one having a cross-bolt, K, to unite the lower end of the link to the frame A.

When the frame A is made of metal, there are two angle-irons set back to back, with a space between them sufficient for the links I to pass through freely, and when the frame A is of wood the same is to be mortised for the passage of these links, and the upper end of each mortise is the widest, to give the room necessary for the links I to swing into a more or less inclined position.

The triangular frame L is made with two horizontal pivots, or a pivot-bolt, 4, by which two of the ends are connected with the frame A, and upon which pivots the frame L can swing as the springs are compressed and the car-frame rises and falls. The end 5 of this triangular frame has a vertical hole through which the bolt 6 passes and attaches the cross-bearer E to this end of the triangular frame, and upon which bolt 6 the cross-bearer can turn as the parts swing horizontally, so that the cross-bearer and axle may occupy a more or less inclined position to the car-frame.

It will now be understood that the single pair of wheels and their axle near each end of the car-frame perform all the duties heretofore attained by a car-truck with four wheels, and

there is little or no risk of accident to any of the parts, because the suspending-links I swing upon the cross-bolts K, to allow the axle to assume a diagonal position to the car-frame, and there is no lateral strain upon these links I, because the triangular frame L makes a direct connection between the car-frame and the cross-bearer E, that carries the journal-boxes D, and at the same time the springs G are free to yield more or less, according to the weight, because the triangular frame swings upon its pivots 4 as the car-frame goes up or down under the action of weight and the inequalities of the track, thus allowing the axle and each pair of wheels the necessary freedom to allow the car to travel either upon a straight or curved track without unnecessary strain upon any of the parts, and there is but little torsion upon any of the devices; hence the parts can be made both light and cheap.

I claim as my invention—

1. The combination, with the two car-wheels and their connecting-axle, of a cross-bearer having journal boxes or bearings at the ends for the axle, head-bars, and suspending-links passing to the frame of the car and pivots for connecting the suspending-links to the car-frame, and a frame pivoted at its respective

ends to the car-frame and to the cross-bearer, substantially as set forth.

2. The combination, with the car-axle and the two wheels upon the same, of a cross-bearer having journal-boxes at the ends of the same for the axle, followers, and springs resting upon the journal-boxes, head-bars, and suspending-links to each head-bar, and cross-bolts for connecting the links to the frame, substantially as set forth.

3. The combination, with the wheels and axle, of a bearer for the axle, a pivotal connection to the car-frame, and hanging links for sustaining the car-frame from the bearer of the axle, substantially as set forth.

4. The links I, and car-frame, to which the links are pivoted at their lower ends, head-bars to which the upper ends of the links are connected, journal boxes or bearers, and the axle upon which the boxes rest, and bearings between the head-bars and journal-boxes, substantially as set forth.

Signed by me this 29th-day of May, A. D. 1886.

CHAS. W. HUNT.

Witnesses:

GEO. T. PINCKNEY,
WILLIAM G. MOTT.