(No Model.)

E. F. BOSDEVEX.

TRUCK FOR RAILWAY CARS.

No. 424,089. Patented Mar. 25, 1890.

Fig. 1.

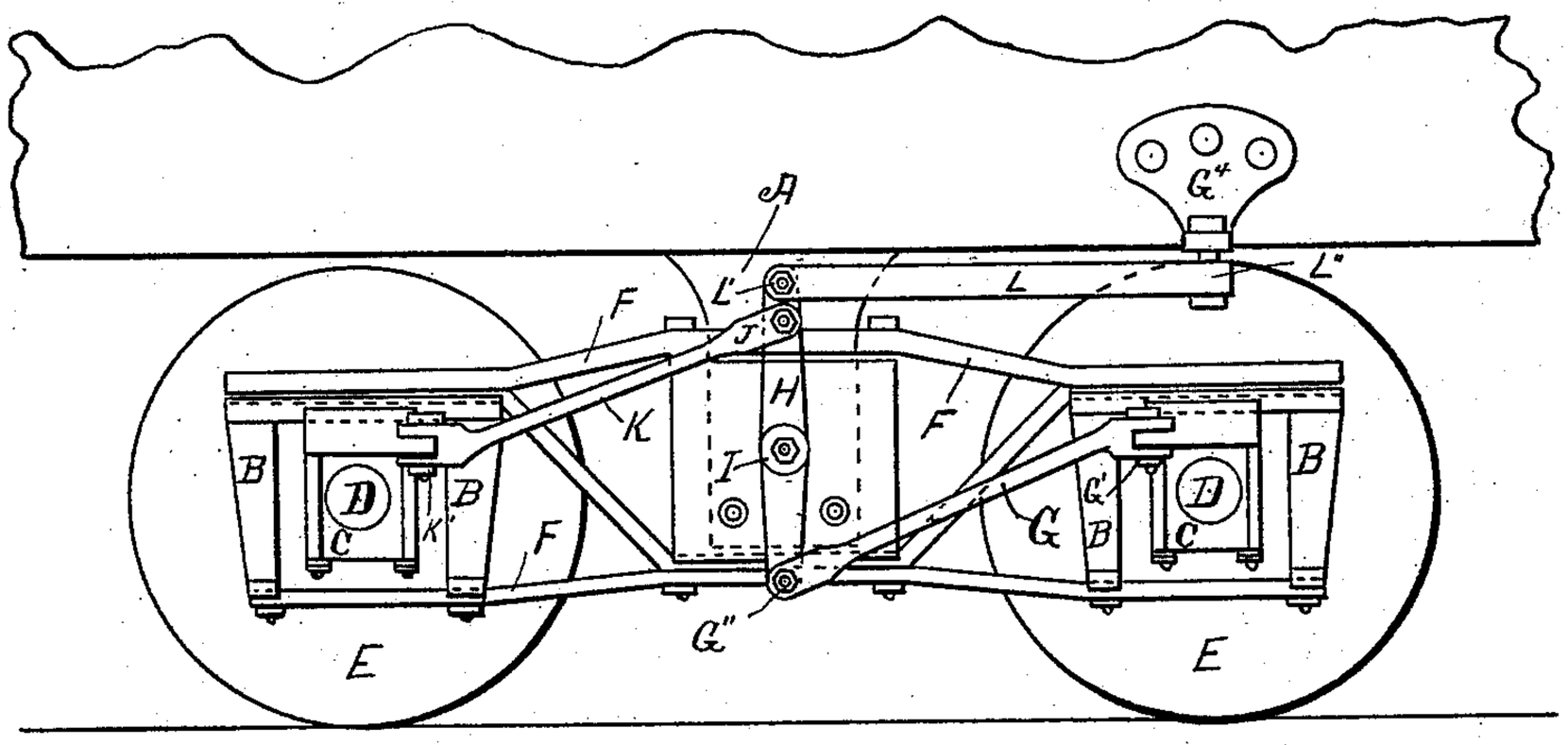
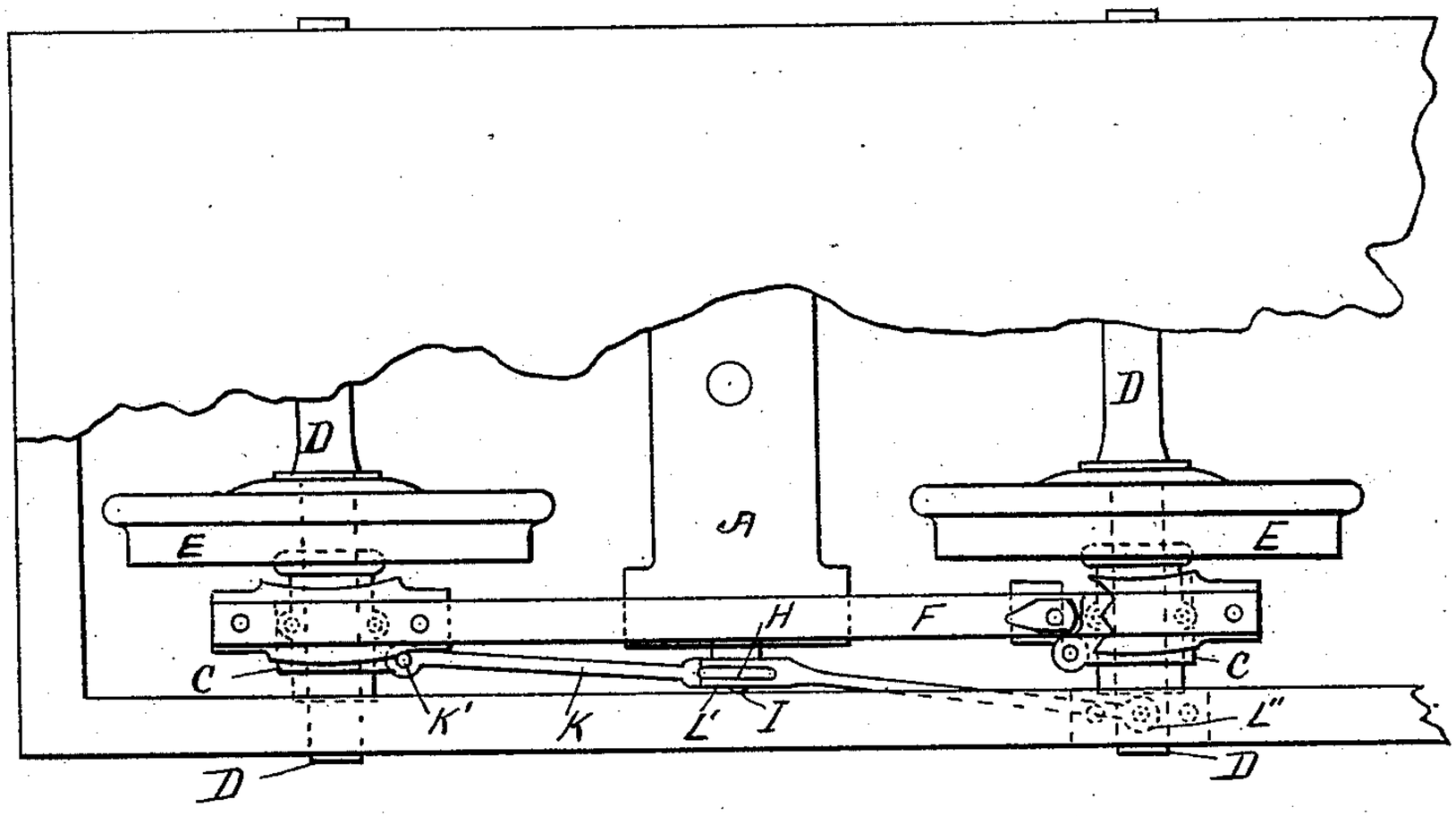


Fig. 2.



WITNESSES

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UNITED STATES PATENT OFFICE.

EDMOND F. BOSDEVEX, OF NEW YORK, N. Y., ASSIGNOR, BY MESNE ASSIGNMENTS, TO JOHN W. EMERSON, OF SAME PLACE.

TRUCK FOR RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 424,089, dated March 25, 1890.

Application filed July 26, 1887. Serial No. 245,390. (No model.)

To all whom it may concern:

Be it known that I, EDMOND F. BOSDEVEX, a citizen of the United States, residing in the city of New York, in the county and State of New York, have invented a new and useful Improvement in Car-Trucks for Railway-Cars, of which the following, taken in connection with the drawings furnished, is a specification.

My invention relates to car-trucks of a character adapted to permit the wheels thereof to follow any curve of a track without undue side contact or strain to any portion of the wheel or flange thereof; and it consists of a series of connecting-rods uniting the pedestal-boxes of a truck to the body or frame of the car in such manner as to assist the sliding of the journal bearings or boxes therein to an extent allowing the latter to conform to the position required for the axle with its wheels to maintain their proper angle with the track; and it further consists in the combination of the means hereinafter described, whereby all parts act in unison.

Referring to the drawings, Figure 1 represents a side elevation of a truck containing my improvement, and Fig. 2 represents a top view of the same.

In the drawings which I have prepared to represent the principles of my invention, A represents the base of the car, and B B the pedestal-blocks for supporting the axle-boxes C.

D D represent the ends of the axles in position; E E, wheels; F, metallic braces serving as supports to the pedestals and forming the truck-frame.

G, H, K, and L represent a series of connecting rods and levers pivotally uniting the axle-boxes with each other and with the truck-frame and car above, as will be hereinafter more fully explained.

In the instance shown the axle-boxes C are somewhat narrower in width than the space they are intended to occupy in the pedestals. The object of this extra space is to afford sufficient room for the longitudinal sliding of the boxes, as required when rounding curves. Suitable connecting-rods (shown at G and K) are hinged to the sliding axle-boxes, uniting with a centrally-pivoted lever, (shown at H,) adapted to oscillate upon a bearing (represented at I in the drawings) securely fastened to the center beam or stay of the truck. It is obvious, however, that the pivot-pin may be secured to the main metallic bracing forming the frame of the truck when lowered to the proper point for that purpose, the principal object of the pivot-pin I being to serve as a fulcrum to cause the ends of the lever to move in opposite directions when acted upon by a rod, (shown at I in the drawings.) The action of the truck-levers is secured by the connecting-rod L, which is pivotally connected to the body or frame-work of the car. In the instance illustrated it is secured to a flange bolted to the lower or base part of the car, (indicated at G^4.) Of course it will be readily understood that the connecting-rod may be attached to the frame or base of the car beneath. The chief object of this connection with the body or frame of the car is to insure the proper movement or slide of the boxes when rounding a curve to an extent preventing the truck from unduly turning upon its center. Consequently it will appear manifest to those skilled in the art that connections may be made at different points upon the body or frame of the car and produce the desired result.

It should be understood that the levers and connections already described and shown in Fig. 1 of the drawings are to be applied to the truck, body of the car, and journal-boxes at the opposite side of that shown in the figures referred to, and consequently to all of the trucks upon the same car.

The form of the levers may be modified in form, as well as their arrangement and manner of connection, without departing from the spirit of my invention.

The operation of my improved truck is as follows: When rounding a curve somewhat shorter than the length of the car, the latter, by reason of the fact that it cannot conform to the curve, maintains a position different from that assumed by the wheels and axles, which are expected to follow the curve of the track. Consequently the connecting-rods L″ L″, located at opposite sides of the truck, uniting the car with the levers, &c., serve to act upon the lever H, and the latter upon G

and K, so as to cause the axle-boxes to slide in the pedestals in the direction to place the axles at the proper radius across the track on a curve in accordance with the circle thereof. The boxes on the inner circle of the curve are drawn nearer together, of course, than those at the outer, which are allowed to expand apart in proportion to the requirements to form the proper radius across the curve. The connecting-rods serve as brace-supports as well as guides for maintaining the proper position of the trucks under all circumstances.

The object of my improvement is to simplify the construction of car-trucks of the class more especially adapted to conform more or less to the varied curves of a railway-track and lessen the cost of construction, and at the same time secure additional advantages by way of avoiding undue friction of parts, curved socket-bearings, and similar features, which require great care in defining as well as extra skill in constructing. Another advantage in my improvement consists in its ready adaptation and attachment to car-trucks of the ordinary class already in existence. I do not wish to be understood, however, as claiming, broadly, a car-truck the wheels of which are more or less variable at times in their relations to each other when rounding curves, as such have existed prior to the date of my invention; but I am not aware that trucks have been constructed prior to the date of my invention in which the axle-boxes were capable of moving or sliding horizontally within the pedestals supporting them. Neither am I aware that such boxes have been connected together in a manner similar to that hereinbefore set forth, so as to be operated in a manner similar to that already described by me herein.

Having thus set forth my invention, what I claim as new, and desire to secure by Letters Patent of the United States of America, is—

1. A truck for railway-cars, consisting of a main frame, pedestals, sliding boxes, wheels and axles, and connecting-rods uniting the said boxes with a vertically-arranged centrally-pivoted lever at or near its opposite ends, and a connecting-rod uniting said pivoted lever with the body of the car or frame thereof, substantially as described, and for the purpose set forth.

2. The combination, with a truck for railway-cars, provided with pedestals and boxes adapted to slide horizontally in the latter, axles, and wheels, of connecting-rods and a centrally-pivoted vertical lever located about central at the side of the truck, to which said connecting-rods are pivotally connected at or near its opposite ends, and a connecting-rod uniting said pivoted lever with the body of the car, all operating substantially as described, and for the purpose set forth.

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