(No Model.)

J. McLACHLAN.

CAR TRUCK.

No. 261,371. Patented July 18, 1882.

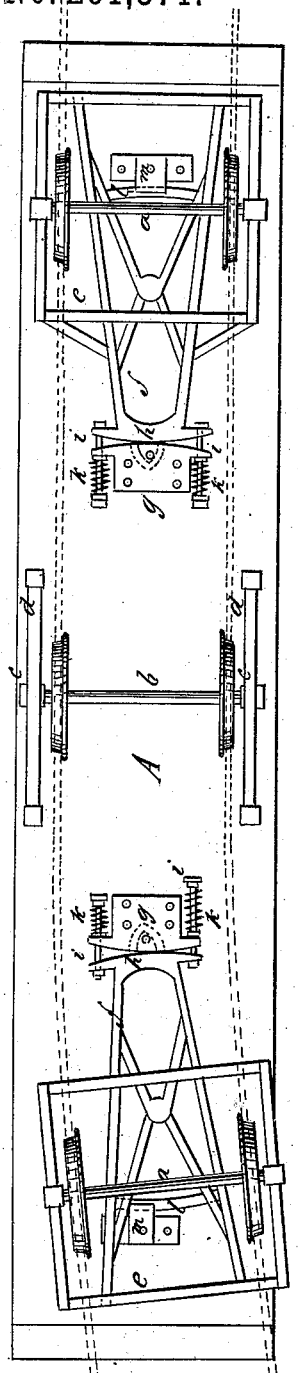

Fig. 1.

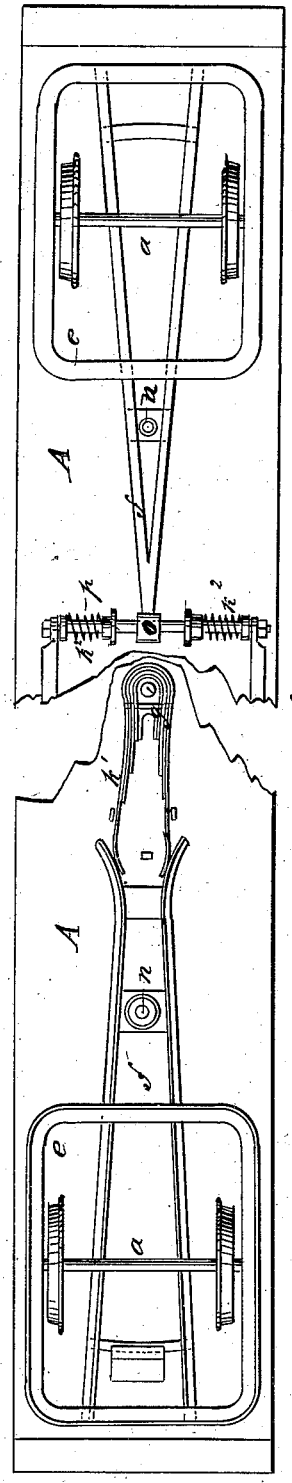

Fig. 3.

Fig. 2.

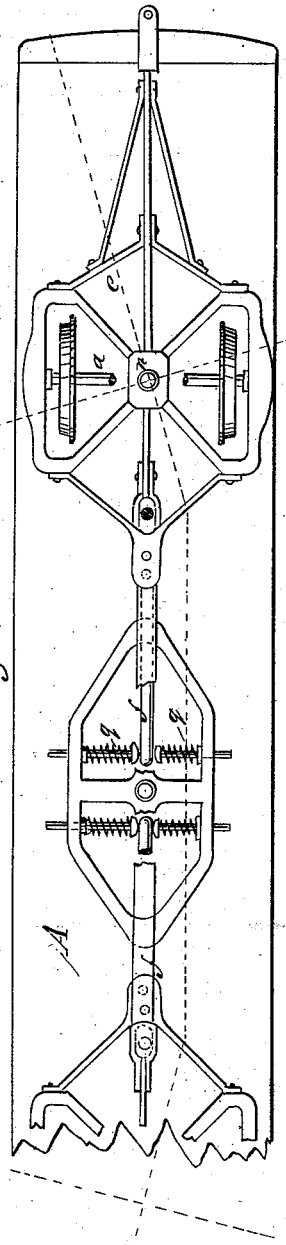

Fig. 4.

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JOHN McLACHLAN, OF NEW ORLEANS, LOUISIANA.

CAR-TRUCK.

SPECIFICATION forming part of Letters Patent No. 261,371, dated July 18, 1882.

Application filed December 27, 1881. (No model.)

To all whom it may concern:

Be it known that I, JOHN McLACHLAN, of New Orleans, in the parish of Orleans and State of Louisiana, have invented a new and Improved Running-Gear for Railway-Cars, of which the following is a full, clear, and exact description.

The object of my improvements is to facilitate the travel of cars on curved tracks and the return of the trucks to a straight-line position when the curves are passed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is an inverted plan view of a car provided with my improved running-gear. Figs. 2, 3, and 4 are plan views, showing modifications.

Referring to Fig. 1, the car A is mounted with six wheels, two at each end, on axles *a a*, and two at its mid-length on an axle, *b*, that is sustained by boxes *c c* on the fixed pedestals *d d*, in which the axles have a limited play laterally. The end axles, *a a*, are sustained on bogie-frames *e e*, that are hung on tongues *f f*, so as to swing from blocks *g g*, attached to the car-bottom. The tongue *f* of each frame *e* is formed with a curved head-piece, *h*, that abuts against the curved face of block *g*, and the connection with the block is made by rods *i i*, extending through the ends of the head-piece and block loosely, so that the truck *e* can swing to either side. Around the rods *i* are spiral springs *k*, placed between block *g* and heads on the rods *i*, so that as the frames *e* swing to one side the spring at the opposite side is compressed and tends to restore the straight-line position of the trucks. On the frames *e* there are cross-bars *l l*, taking beneath guide-pieces *m m*, attached to the car, whereby the frames and axles are held up and prevented from dropping when passing a frog-plate.

It will be seen the forward and rear wheels are free to radiate or take a curve independently of each other, so that while one is on a curve the other may remain square or be upon a reverse curve. There are no complicated parts, and the whole gearing is light and durable.

Different forms of springs may be used and their arrangement varied.

In Fig. 2 bow-springs *k'* are shown, which are formed by leaves bent around a block, *g'*, the ends taking between the tongues *f f* of the truck-frame. The tongues in this case are pivoted at *n*, and, if desired, the inner end of the tongues may be between the ends of the bow-spring, instead of being outside, as shown.

In Figs. 3 and 4 my invention is shown as applied to a four-wheeled car. Fig. 3 shows the tongue of frame *e* pivoted at *n* and its inner end connected to a slide, *o*, on a cross-rod, *p*, of a center frame. Springs k^2 k^2 on the rod *p* serve to retain the slide *o* in its middle position. In Fig. 4 the frame *e* is pivoted at *n* over the axle, and is formed with a tongue, *f*, that extends between spring-acted rods *q*, fitted in a center frame.

The construction shown is especially advantageous for street-cars using only four wheels, for the reason that the axles can be set near the ends of the car and still take a short or reverse curve without excessive friction.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, with a truck having three equidistant pairs of wheels, whose front and rear axles are hung on pivoted frames and the middle one journaled in fixed pedestals, of the tongues *f*, blocks *g*, the rods *i*, extending loosely through blocks and head-piece *h* of the pivoted frames, and the springs, arranged as shown and described.

2. The combination, with the end axles, *a*, of the frames *e*, tongues *f*, having curved head-piece *h*, the rods *i i*, and the car-bottom blocks *g*, having curved faces, as and for the purpose specified.

3. The combination of axle-frames *e*, tongue *f*, blocks *g*, rods *i*, and springs *k*, substantially as shown and described, for operation as specified.

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Witnesses:

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