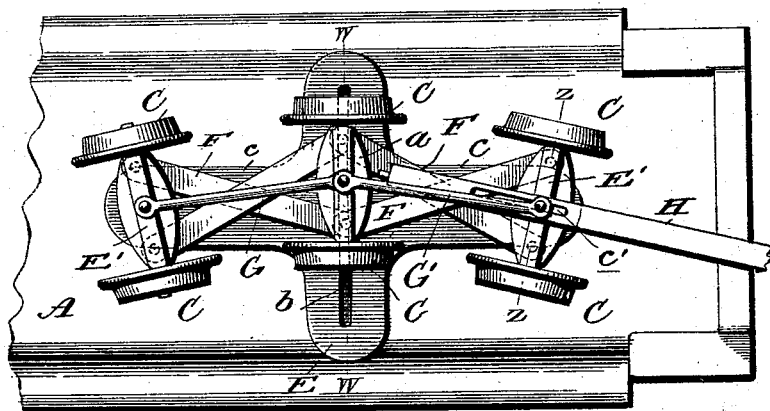


R. GIDLEY.
CAR TRUCK.

Patented July 7, 1891.

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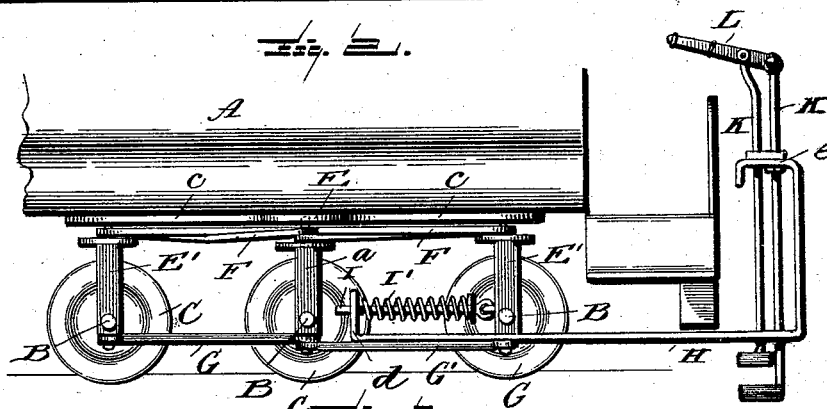
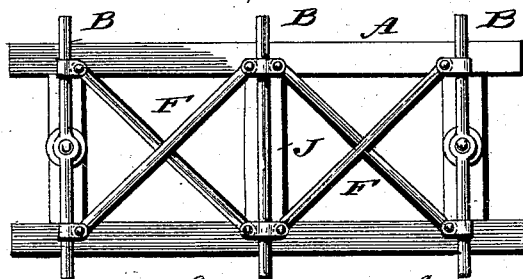
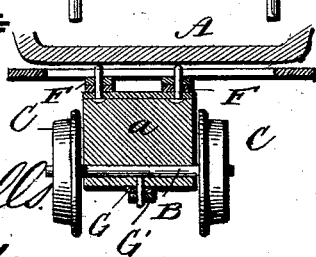


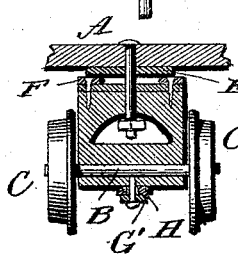
Fig. 3.



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UNITED STATES PATENT OFFICE.

ROBERT GIDLEY, OF VERBANK VILLAGE, NEW YORK.

CAR-TRUCK.

SPECIFICATION forming part of Letters Patent No. 455,460, dated July 7, 1891.

Application filed January 14, 1891. Serial No. 377,690. (No model.)

To all whom it may concern:

Be it known that I, ROBERT GIDLEY, a citizen of the United States, residing at Verbank Village, in the county of Dutchess and State of New York, have invented certain new and useful Improvements in the Running Parts of Railway-Cars, of which the following is a specification.

This invention relates to certain new and useful improvements in running-gear for railroad-cars; and it has for its objects, among others, to provide an improved construction for this purpose whereby the sharpest curves may be turned without the least danger of the wheels leaving the track. I provide crossed pivoted rods, which serve to keep the axles connected and yet allow all the movement necessary in going round curves. I provide means for taking up the motion in starting, so that the jerk heretofore experienced is obviated. I provide improved means for manipulating the grips.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be specifically defined by the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a bottom plan of a portion of a truck provided with my improvements. Fig. 2 is a side elevation thereof, showing also the grip-actuating devices. Fig. 3 is a bottom plan showing a slightly modified form of construction. Fig. 4 is a cross-section on the line W W of Fig. 1. Fig. 5 is a cross-section on the line Z Z of Fig. 1.

Like letters of reference indicate like parts throughout the several views in which they occur.

Referring now to the details of the drawings by letter, A designates a portion of a car-truck, B the axles, and C the wheels thereof. In the construction shown in Figs. 1 and 2 the wheels are arranged in sets, the central ones being carried by the axle, which is supported in the vertical plate or bearing *a*, which is designed to slide across and back in the transverse slot *b* of the plate E, which is secured to the under side of the car and has a portion *c* extending in each direction from the central

transverse portion toward the end of the car, as shown best in Fig. 1. The end axles are carried by the vertical plates or bearings E', which are pivoted at their centers to the ends of the longitudinal portions of the plate E, as seen in Fig. 1.

F are four bars, the outer ends of which are pivotally connected with the ends of the plates E' of the end axles, there being two sets of these bars, the two bars of each set being crossed, as shown in Fig. 1, and their inner ends pivotally connected with the ends of the central bearing-plate *a*, as shown in Fig. 1.

G is a link or rod pivotally connected at one end to one of the end axles and at the other end connected to the center axle, the link or rod G' being pivoted on the same pivot and at its other end pivotally connected to the other end axle.

H is a rod or bar the rear end of which is provided with a longitudinal slot *c'*, through which passes the pivot of the forward link G', the rear end of the said rod being turned up at a right angle to its length, as shown best at *d* in Fig. 2, and through a hole in this up-turned end passes the rear end of the rod I, the other end of which is connected to the forward vertical axle-plate, and around which rod is a coiled spring I', the construction being such that when the car is started the spring and the play provided for the rod the sudden jar so often felt is dispensed with, being taken up by the spring.

The construction shown in Fig. 3 is substantially the same as that in Figs. 1 and 2. Instead of the slotted plate, the crossed rods are pivoted at their inner ends to a plate or bar J, which slides back and forth on the axle.

The operation of this part of the invention will be readily understood. The crossed pivoted rods allow great freedom of motion of the axles and permit the car to turn the sharpest curves without any danger of the wheels leaving the track or the parts being separated or distorted in any manner.

In Fig. 2 I have shown a grip-actuating mechanism, which consists of the rod H being extended upward and its upper end bent horizontally, as shown at *e*, and through this horizontal portion work the grip-rods K, which are connected to the lever L, as shown in said Fig. 2.

What I claim as new is—

1. The combination, with a car-truck, of the plate secured to the under side thereof and provided with slotted transverse portion, the pivoted axles, and the crossed bars pivotally connected with the axles and adapted to serve substantially as specified.

2. The combination, with the car and the plate secured to the under side thereof and having transversely-slotted central portion, of the vertical plates, the axles carried thereby, the said plates being pivoted on the bottom of the car, and the crossed bars pivotally connected to the axle-plates, substantially as specified.

3. The combination, with the car and the

pivoted axle-plates, of the crossed bars pivotally connected to the axle-plates and the links pivotally connected with the axles, as set forth.

4. The combination, with the car and the pivoted axle-plates, the axles, and the pivoted crossed bars, of the rod H, having longitudinal slot, and a spring arranged to act upon the said rod, substantially as and for the purpose specified.

In testimony whereof I affix my signature in the presence of two witnesses.

ROBERT GIDLEY.

Witnesses:

WM. HALL,
WARREN DAVIS.