J. TIMMS.

2 Sheets—Sheet 1.

Changeable-Gage Truck.

No. 207,998.

Patented Sept. 10, 1878.

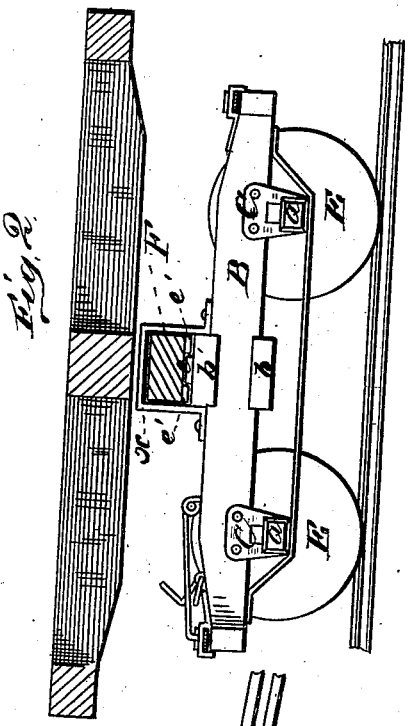

Fig. 2.

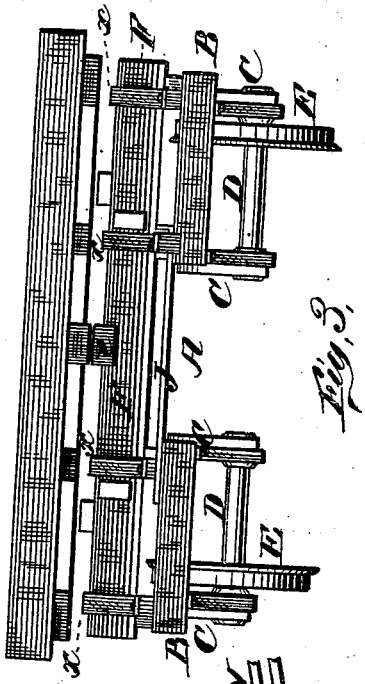

Fig. 3.

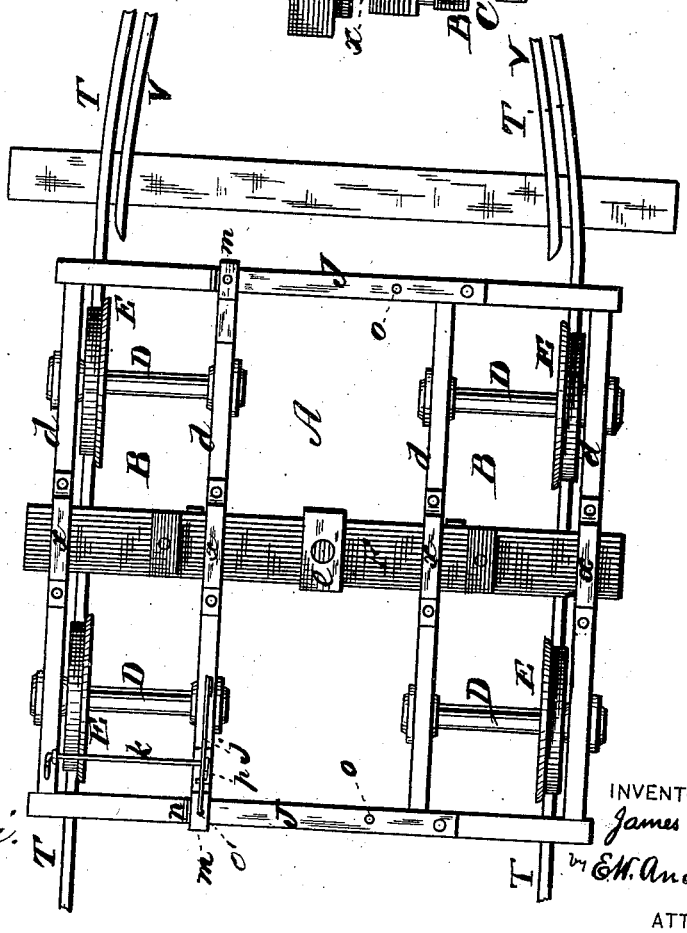

Fig. 1.

WITNESSES

H. Bates

F. J. Masi.

INVENTOR

James Timms

by E. M. Anderson

ATTORNEY

J. TIMMS.

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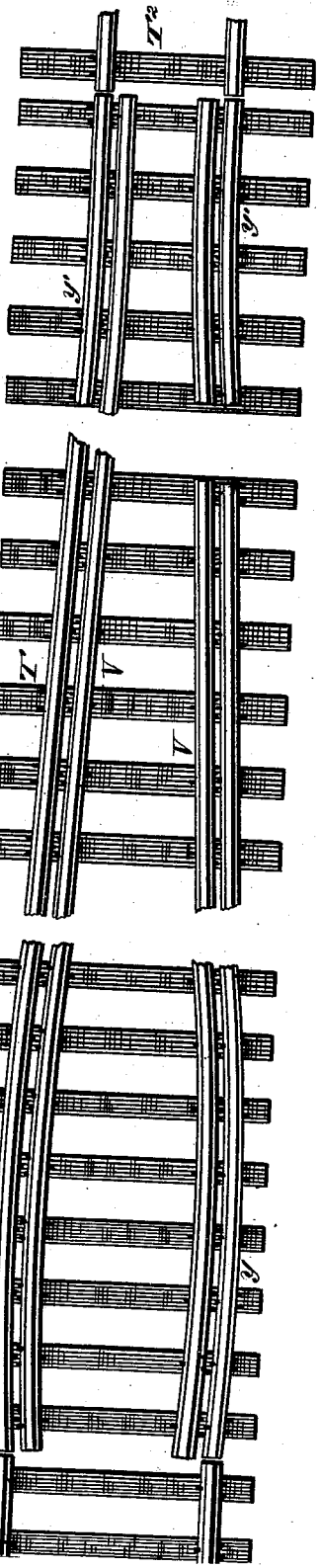

Fig. 4.

WITNESSES

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UNITED STATES PATENT OFFICE.

JAMES TIMMS, OF MALTA, OHIO, ASSIGNOR OF ONE-HALF HIS RIGHT TO A. J. MORRIS, OF SAME PLACE.

IMPROVEMENT IN CHANGEABLE-GAGE TRUCKS.

Specification forming part of Letters Patent No. **207,998**, dated September 10, 1878; application filed June 22, 1878.

To all whom it may concern:

Be it known that I, JAMES TIMMS, of Malta, in the county of Morgan and State of Ohio, have invented a new and valuable Improvement in Transfer Devices for Railway-Tracks of Different Gages; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a top view of my improved car-truck. Fig. 2 is a transverse section thereof. Fig. 3 is an end view of the same, and Fig. 4 is a top view of the transfer-track.

This invention has relation to improvements in railroad-car trucks.

The object of the invention is to devise a truck that will accommodate itself automatically to a broad or narrow gage track.

The nature of the invention consists in the construction and novel arrangement of parts, as will be hereinafter shown and described.

In the annexed drawings, the letter A designates my improved truck, composed of two strong wooden or metallic frames, B, properly braced together, and, if desired, prevented from sagging by a suitable trussing.

C represents pedestals, carrying in their lower portions the axle-boxes *a*, and arranged directly opposite each other upon the frames aforesaid. These pedestals are two or more in number—that is, there may be two or more pairs thereof. Each pair affords bearings to a short axle, D, upon which is secured in the usual manner a flanged car-wheel, E.

The side beams of the truck-sections are connected together by means of strong timbers *b b'*, the one bolted to the under side and the other to top thereof, and extending transversely across the frames at the middle of their length. The upper middle braces, *b'*, are each provided with a smooth metallic bearing-plate, *c*, upon their upper faces, the object of which will be hereinafter explained, the said plate being let into the said brace preferably.

Upon the side bars *d d* of the truck-sections are erected strong rectangular metallic loops *x*, extending above the upper braces, *b'*, and straddling the same, through which loops the bolster F is passed. This bolster has at the center of its length a metallic bearing, *e*, upon which the car-body rests, and through which passes the king-bolt that secures the car to the truck. The bolster is in no wise secured to the truck-sections, and has upon its under side metallic plates *e'*, that receive the plates *e* of braces *b'*.

At each end of the compound truck thus formed is a metallic lock-bar, J, rigidly secured at one end to one of the truck-sections, and extending through a guide-loop, *m*, on the other. The free end of the lock-bar is provided with a stop, *n*, that prevents the same from becoming disengaged from the loop *m*. These lock-bars have spaced perforations *o* cut through them, with which, under circumstances hereinafter set forth, a spring-catch, *j*, upon the truck-section having the guides *m*, is designed to engage when the said perforations come in line with a perforation, *o'*, in the said guides. The catch is raised and the lock-bar released by means of a rock-shaft, *k*, carrying a cam, *p*, under said catch, that is rotated by a crank-arm or hand-wheel.

T represents the rails of the track, gradually lessening in their distance apart from wide gage to narrow until they merge into the rails of the narrow-gage track. Inside of the rails of the converging track is a guard-rail, V, sufficiently spaced to admit the flange of the wheels. At the point *y*, where the converging track merges into the broad-gage, the rails are somewhat farther apart than on the broad-gage itself, by which means the sections of the truck are caused to separate sufficiently to provide for endwise play of the axles and secure the engagement of the catch and lock-bar. For a similar reason the rails in front of the narrow-gage track are somewhat nearer together than on the narrow-gage itself, as shown at *y'*.

In passing from the broad to the narrow gage track, the flanges of the wheels bear against the converging rails, and as the cars move the sections of the truck approach each other by a sliding movement on the bolster, owing to

the constraint caused by the convergence of said rails. In passing from the narrow to the broad gage track, the divergence of the guard-rails against which the flanges of the wheels bear causes the truck-sections to separate by a sliding movement until the catch engages the lock-bar.

I do not propose to confine myself to the precise construction of the truck-sections, lock-bars, and catches hereinbefore described, as there are many other modes of construction which might be adopted without going outside of my invention.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with the bolster F and independent truck-sections sliding thereon to or from each other, of the lock-bars J, having the stop *n*, engaging loops *m* on one of said sections, whereby said stop *n* prevents the lock-bar from being disengaged from the loops, substantially as specified.

2. The combination, with the bolster F, of independent truck-sections *d*, having guide-loops *x*, sliding on said bolster, the perforated lock-bars J, secured to one of the sections and engaging the loops *m* on the other, in connection with the rock-shaft *k*, having the cam *p*, operating the spring-catch *j*, all constructed and arranged to operate substantially as shown and described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JAMES TIMMS.

Witnesses:
WM. H. CHASE,
F. J. MASI.