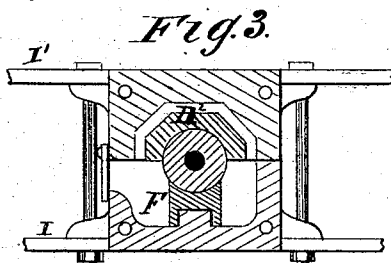
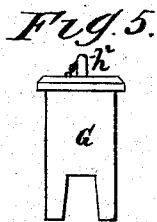
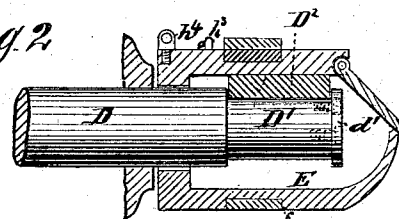
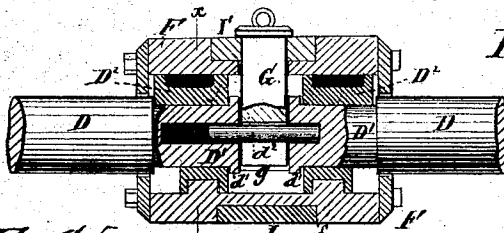
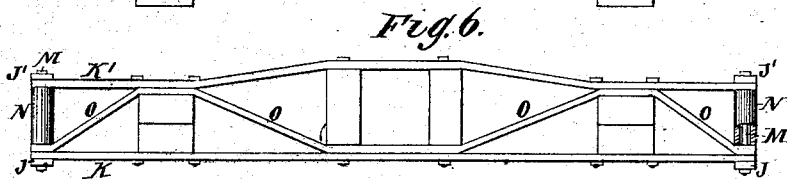
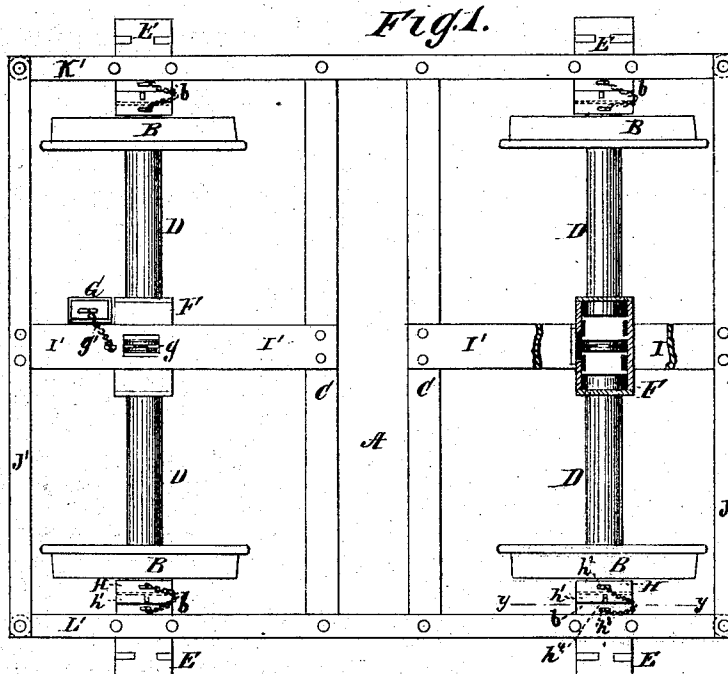


J. M. BROSIUS.

Car-Trucks.

No. 159,385.

Patented Feb. 2, 1875.



WITNESSES:

G. Matthews
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INVENTOR:

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UNITED STATES PATENT OFFICE.

JOHN M. BROSIUS, OF RICHMOND, VIRGINIA.

IMPROVEMENT IN CAR-TRUCKS.

Specification forming part of Letters Patent No. 159,385, dated February 2, 1875; application filed July 1, 1874.

To all whom it may concern:

Be it known that I, JOHN M. BROSIUS, of Richmond, in the county of Henrico and State of Virginia, have invented a new and Improved Railroad-Car Truck; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming a part of this specification, in which—

Figure 1 is a plan view; Fig. 2, a longitudinal vertical section of inner and outside boxes; Figs. 3 and 4, vertical cross-sections; Fig. 5, a detail view, in elevation, of spacing-block G; Fig. 6, a side elevation of truck.

The invention relates to, and consists in, certain novel improvements in car-trucks, whereby they are readily adapted to use on railroads of different gage, automatically spacing their pairs of wheels to suit the change, and thus rendering unnecessary any breaking of bulk, change of freight, or transfer of passengers to new cars on each different road.

A represents a truck; B B, the pairs of wheels, and C the bolster. Each of the wheels B B has a separate axle, D, which is journaled at the outside end in the usual bearing E, while both are journaled at the other or inside end in a common box, F, and separated by a plug or spacing-block, G, that fits into a cavity, *g*, of the box. The block is preferably connected, by a chain, *g'*, to the box F, to prevent it from being misplaced or lost. The axles D have journals D¹, with ring-flanges *d'*, to hold the brasses D² fixedly, and cause them to always slide with the axles, and be kept in alignment by a coupling-pin, *d*².

When it is desired to pass from a broad to a narrower gage, the plug G is withdrawn, and the truck switched off on a connecting track, whose rails converge toward the narrow track. As soon as the latter is reached the axles will be found to have approached each other, with their inside ends a distance corresponding to the difference of gage between the two connecting roads. I now insert between the wheels and bearings E E a brass or other metallic plate, H, having the two prongs

h h, which straddle the journal, and a shoulder, *h*¹, which rests upon a part, *b*, of the frame. The plate is held by the eyes *h*² *h*³, which are locked by a pin, *h*⁴. Thus a car is readily transferred from one road to another of different gage without loss of time, with no appreciable labor or expense, and the necessity of changing freight or passengers entirely obviated.

With a maximum gage I use only the plug G; with a minimum one only the plates H.

In order to fix the box F securely and support it well I groove it subadjacently at *f*, so as to fit over the metallic plate or bar I, which is extended and sustained at the end by a cross-bar, J. The latter is upheld by the extensions of the longitudinal bars or plates I' K' L' L' and cross-bar J', all these being fastened by strong bolts M, and separated by spacing-tubes N. I also use diagonal braces O O, extending from the top of bearings E downwardly to each corner of truck. By this means the box F is rigidly held at all times, and without danger of working loose by any displacement resulting from jars or strain of any kind.

Having thus described my invention, what I claim as new is—

1. The plates H, having prongs *h h* and shoulder *h*¹, combined with axles D D and car-wheels B, to adapt them to minimum gages of road.

2. The combination, with middle box, F, and end-recessed journals, of the diametrically-perforated vertical plug G, and horizontal pin passing therethrough, as and for the purpose specified.

3. The combination, with the subadjacently-grooved middle box or bearing, F, of the extended longitudinal bars I I' K' L' L' and the cross-bars J J', all bolted together, as and for the purpose set forth.

JOHN M. BROSIUS.

Witnesses:

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