

GEORGE F. MORSE.

Improvement in Railway-Car and Engine Trucks.

No. 114,587.

Patented May 9, 1871.

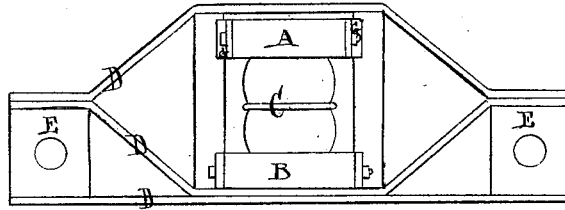


Fig. 1

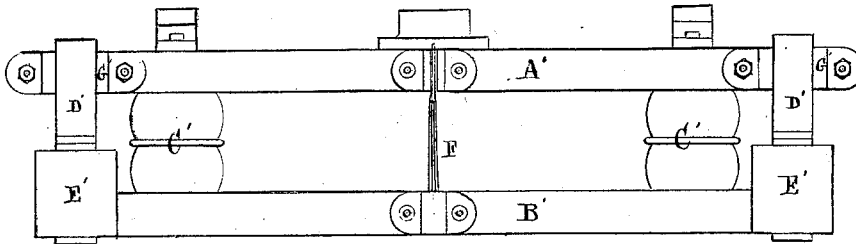


Fig. 2.

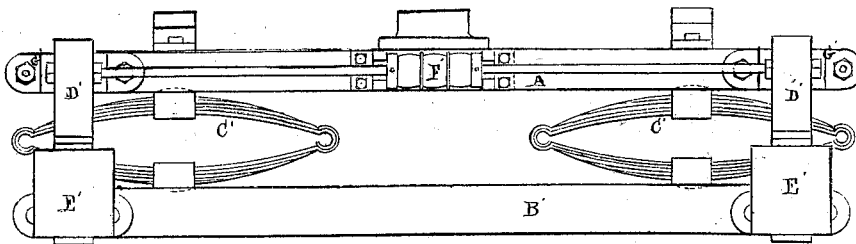


Fig. 3.

Witnesses:

Wm. Henry Clifford.
Henry C. Houston.

Inventor:

Geo. Fred. Morse

United States Patent Office.

GEORGE FRED. MORSE, OF PORTLAND, MAINE.

Letters Patent No. 114,587, dated May 9, 1871.

IMPROVEMENT IN RAILWAY-CAR AND ENGINE-TRUCKS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern :

Be it known that I, GEORGE FRED. MORSE, of Portland, in the county of Cumberland and State of Maine, have invented a new and useful Improvement in Railway-car and Engine-Trucks ; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable others to make and use my invention, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 shows a side elevation of the truck-frame with my improved sway-beams.

Figure 2 shows an end elevation of the truck-frame, showing the sway-beam and the spring for maintaining the sway-beam in central position.

Figure 3 shows same view as fig. 2, with another variety of spring for maintaining the sway-beam in a central position, and a different variety of riding springs.

Same letters show like parts in all of the figures.

My invention consists of an improvement in railroad-car or engine-trucks, by means of which the lateral motion so desirable in railway cars can be more cheaply attained, and can also be obtained with certain forms of truck-frames in which the ordinary swing-beam cannot well be used. This lateral motion in railway cars is usually obtained by hanging the beams of the truck that carry the bolster-springs upon links which swing laterally to the desired extent, being brought back to position by gravity. In these cases both the upper beam of the truck upon which the car is supported and the lower beams supporting the springs swing, being suspended by the links above referred to, said links hanging on pins supported by the cross-timbers of the truck.

In my invention it is only the upper beam of the truck, carrying the center irons and car-bearings, that moves laterally, the lower beam supporting the springs being rigidly fastened to the side frames of the truck. The upper beam, therefore, having play allowed by the side frames, sways laterally to the motion of the car, rocking or rolling on the springs, and is brought back to position by the springs F F'.

The amount of swaying or lateral motion is governed by the guides G G. This upper or swaying beam is allowed to freely rise and settle on the springs by the play allowed at the guides.

In fig. 1—

A is the sway-beam ;

B is the rigid beam carrying the springs ;

C is one of the springs ;

D, the side of the truck-frame ; and

E E are the axle journal-boxes.

In figs. 2 and 3—

A' is the sway-beam ;

B', the rigid beam ;

C' C', the riding springs ;

D' D', the sides of the truck-frame ; and

E' E' the axle journal-boxes.

F in fig. 2 and F' in fig. 3, respectively, show the springs for retaining or bringing back the sway-beam to a central position. It will be observed that the form of the spring for the accomplishment of this purpose is varied to adapt it to varying kinds of trucks.

In the drawing fig. 2 shows a metallic spring working in a guide in the sway-beam, so that it is bent by the motion of the beam, and brings the same back to a central position by resuming its own position.

In fig. 3 a rubber spring is represented, which is compressed by the swaying of the beam, and restores it to a central position by its own elasticity.

I do not desire to limit myself to the employment of either of the devices shown.

I do not claim the application of springs to each side of the bolster-beam, as set out in A. Bridges' patent, May 27, 1862, No. 35,410. My invention, moreover, relates not to a swinging bolster-beam, but to a sway-beam.

Neither do I claim recessing the bolster in the middle on each side in such manner that it can be suspended on half-elliptic springs occupying the recessed spaces ; patent of J. L. Gill, January 23, 1866, No. 52,158.

Neither do I claim the construction of a bolster-buffer or spring made with a projecting head or plunger to act upon the plated face of the side truck frame-piece, nor the springs' bearing-plate or table and sockets for carrying the springs, as set forth in P. G. Gardiner's patent, No. 98,049, December 21, 1869.

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

The swaying beam A' A, arranged to rock or roll laterally on the springs or on suitable rockers or rollers, in connection with the springs F F' and guides G G, as herein set forth.

GEO. FRED. MORSE.

Witnesses:

WM. HENRY CLIFFORD,

HENRY C. HOUSTON.