

E. TILP.
CAR-PLATFORM.

No. 170,415.

Patented Nov. 23, 1875.

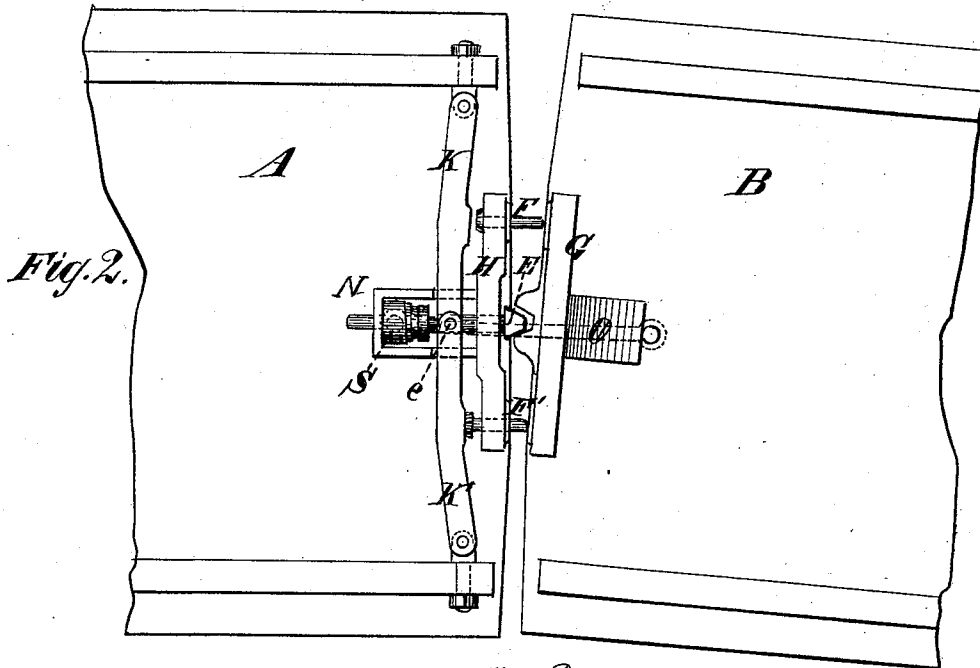
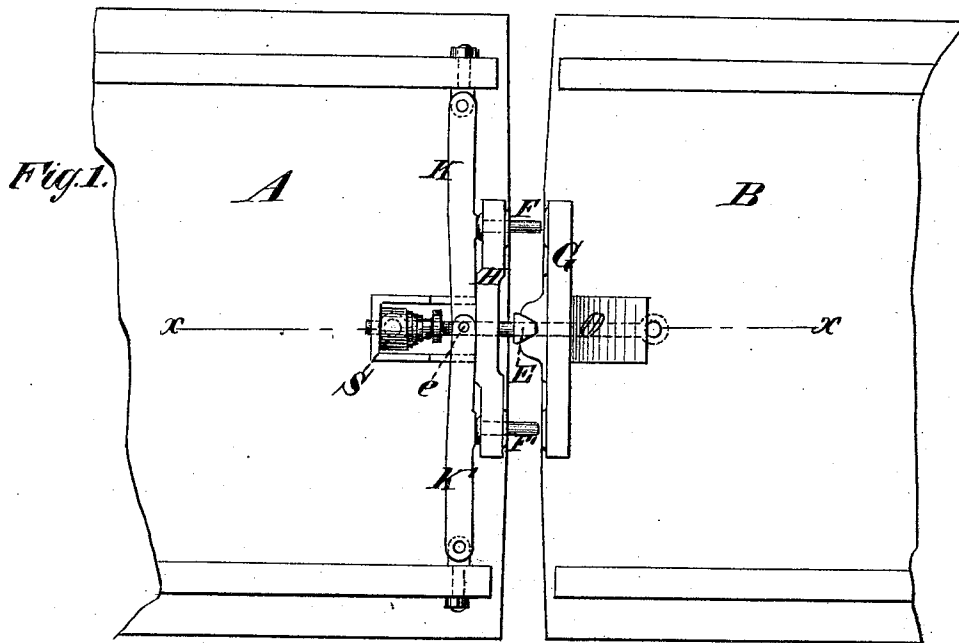
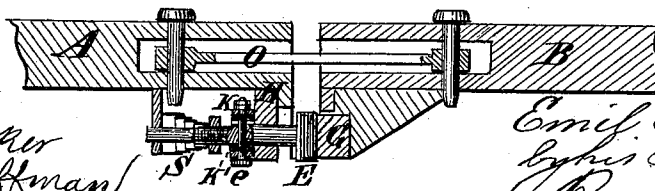


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

EMIL TILP, OF VIENNA, AUSTRIA.

IMPROVEMENT IN CAR-PLATFORMS.

Specification forming part of Letters Patent No. **170,415**, dated November 23, 1875; application filed September 15, 1875.

To all whom it may concern:

Be it known that I, EMIL TILP, of the city of Vienna and Empire of Austria, have invented a new and useful improved steadying attachment to the platforms of locomotives, tenders, and other railway-vehicles, of which the following is a specification:

My invention has for its object the prevention of the horizontal oscillations of moving vehicles on railways, and to allow each vehicle to move easily in a curved track, keeping the center line of the car in the true sine of the center line of the track—that is to say, perpendicular to the radius of the curve, reducing thereby the liability of the vehicles to get off the track, and preventing the displacement of rails.

The invention consists in a novel combination of springs and levers, acting on a suitably-arranged and guided bolt, which is provided with a wedge-shaped head, and in pins sliding in a bracket on each side of the bolt, which assist in starting the levers and the bolt connected therewith, the whole being arranged on and fastened to the platforms of the vehicles. The invention consists, further, in a grooved or slotted bracket, fastened to the opposite platform, into which the above-mentioned bolt-head is forced and held by a spring.

In the accompanying drawing, Figure 1 represents an under view of a pair of platforms of any class of railway-vehicles, as they will appear on a straight track, coupled and provided with my attachment; Fig. 2, an under view of the same platforms, but on a curved track; Fig. 3, a central vertical section on the line *xx*, Fig. 1.

Similar letters refer to corresponding parts in the diverse views.

A and B in the drawing represent two facing platforms of either car, tender, or locomotive. To the under side of the platform A, and to the cross-beam carrying the draw-head, are fastened the levers K K', spring S, the wedge-headed bolt E, and pins F F', by means of brackets and bearings. To the platform B the metallic end piece G is firmly secured. The platforms A and B are held in a suitable distance from each other by the coupling-rod or link O, generally provided for this purpose. The wedge-shaped head of bolt E and the pro-

jecting lugs of the cross-piece or bracket G fully engage with each other in the space between the platforms A and B when the cars or vehicles are coupled and on a straight track. The pins F F', sliding in the bracket H on platform A, are arranged equidistant from opposite sides of the bolt E, which also slides in the bracket H. The pins F F' are provided on one end with stops, which stops are in contact with the levers K K'. The levers are situated in the rear of the cross-piece or bracket H. The levers K K' are of equal length, and are hinged together in the center line of the platform, while their other ends, which form the fulcrum of the levers, are pivoted to the frame of the car. The pins F F' project toward the cross-piece or bracket G on platform B, nearly touching the former. The bolt E passes through the cross-piece or bracket H on platform A, and through the hinge of the levers K K' backward through spring S, and has its end fitted to slide in the bolster N of the spring S. The pin *e* of the hinge of the levers passes through the bolt E, whereby the bolt and the levers are made to work in concert. The bolt is provided with a screw-thread and nut behind and near the hinged part of the levers. One end of the spring bears on the nut, while the other end of the spring rests on the aforementioned bolster, through which the bolt E passes. The nut serves to increase the tension of the spring, and consequently the outward action of the bolt E.

The action of the attachment when the vehicles are coupled and in motion is as follows: The bolt E on platform A engages with the notch or groove of the bracket or cross-piece G on platform B, and is held in position by the power of the spring S when the train moves on a straight track. (The power of the spring is calculated to exert a pressure of about one ton.) The lateral vibration is entirely checked by the spring, and the train runs, rigidly coupled, over the track. As soon as the train enters a curve, and the platforms of two coupled vehicles near each other on the inner side of the curve, the bracket G on platform B comes in contact with the pin F' on platform A, and moves by means of the lever H', which partly overcomes the pressure of the

spring S, (the bolt E inward,) thereby allowing the adjustment of the head of bolt E and the groove G. The balance of power in the spring suffices to overcome the lateral vibration of the vehicles, because the one side of the face of the wedge-shaped head of bolt E is in contact with the lug on cross-piece or bracket G, and to cause the train to run smoothly over the curved track, by allowing the vehicle to run in the true sine of the center line of the curve.

I do not confine myself, however, to the peculiar arrangement of my attachment. The parts may be duplicated so as to make either end of the vehicles serviceable to the same purpose, and I desire to state also that it may be fastened to any platform of vehicles without altering the coupling already in position on such vehicles, or any part of the same. Railway-vehicles provided with my attachment will lessen the wear of the rails, tires of the wheels, and bearings of the axles, and lessen or entirely do away with the dangers of the running-off of the train from the track.

I claim—

1. The bolt E, having a wedge-shaped head, and attached to and carried by the platform A, in combination with the notched rigid bracket or cross-piece G, and the platform B, as herein described, for the purpose specified.

2. The pins F F', sliding in the bracket or cross-piece H on platform A, in combination with the bracket G on platform B, substantially as and for the purpose set forth.

3. The bolt E and the pins F F', in combination with the levers K K', substantially as described.

4. The bolt E, pins F F', levers K K', in combination with spring S, for the purpose herein set forth.

5. The bolt E, pins F F', levers K K', spring S, and bracket or cross-piece H on platform A, in combination with the notched bracket or cross-piece G on platform B, substantially as and for the purposes herein set forth.

EMIL TILP.

Witnesses:

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E. PASS.