

# R. A. COWELL

## R.R. Car Extension Platform.

110901

PATENTED JAN 10 1871

Fig. I.

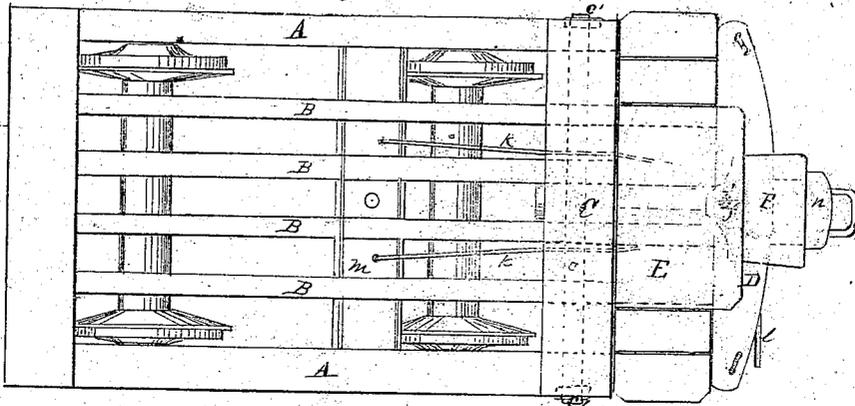


Fig. II.

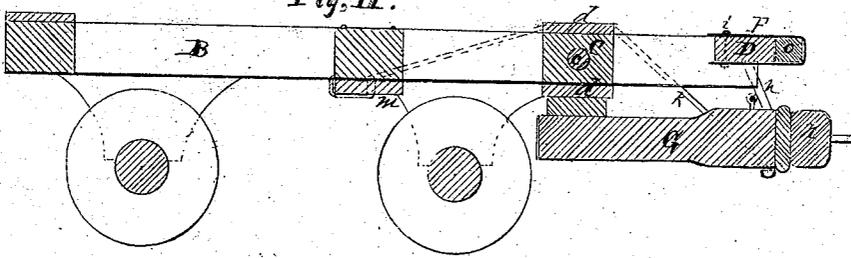
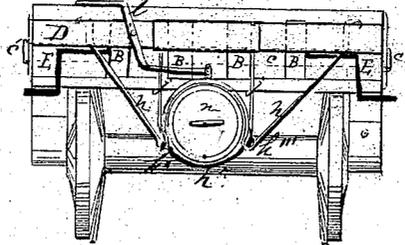


Fig. III.



Witnesses.

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# United States Patent Office.

RENSELAER A. COWELL, OF CLEVELAND, OHIO.

Letters Patent No. 110,901, dated January 10, 1871.

## IMPROVEMENT IN RAILWAY-CAR PLATFORMS.

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, RENSELAER A. COWELL, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented a new and useful Improvement in Railway-Cars; and I hereby declare the following to be a full, clear, and exact description thereof, sufficient to enable those skilled in the art to which my invention appertains to fully understand and to make and use the same, reference being had to the accompanying drawing making part of this specification, and in which—

Figure 1 is a plan view.

Figure 2 is a longitudinal section.

Figure 3 is an end view.

Like letters of reference indicate like parts in the various figures.

My invention consists in the peculiar construction and arrangement of the parts as hereinafter fully described and claimed, whereby a much improved, safe, and strong car is made, capable of resisting a very great shock. It also leaves no open space between cars, endangering the lives of persons by slipping and falling between them.

Referring to the drawing—

A A represent the two side rails of the base or platform of a car, and

B B are intermediate rails, all lying lengthwise of the car, the side rails A A being shorter and terminating at the end of the house or body of the car, while the intermediate rails B B are longer and extend beyond the body of the car to form the platform.

The end sill C, forming the end of the car proper, is made by square blocks fitted between the rails B B, and having a strong bolt, *c*, passing through them and the rails, and secured by nuts *c'* on the outside face of the side rails A A.

There are also heavy planks *d d* placed across, one on the upper side and one on the under side of the blocks and rails. This makes the end of the frame quite as strong as the sides and allows the rails B B to extend beyond, for reasons hereinafter shown.

Across the end of the rails B B is a cross-head, D.

The floor and steps of the platform are made of a plate of sheet-boiler iron, E, bent to form the steps, and roughened on the upper side so as not to be slippery.

A piece of iron, F, is bent so as to embrace the cross-head D, as seen in fig. 2, thus forming the extension-platform.

The upper side is slipped in under the floor-plate E, and a slot, *f*, is cut in both the upper and lower parts, through which and the cross-head a bolt, *i*, passes.

The iron F extends out beyond the cross-head a

short distance, and the space between its outer end and the cross-head D is occupied by a rubber spring, *o*, which acts to keep the iron extended, and will also allow it to turn sidewise a little to conform to the curve in which two cars may be in.

This piece of iron F is as wide as the space between the hand-rails of the platform, and the two (one on each car) meet and cover the space usually found between the cars.

The draw-head G is secured at its rear end in its usual manner, but the front end I secure by braces, as follows:

A heavy iron rod, *h*, is bent, as seen in fig. 3, and nearly embraces the bumper, the ends being secured in the ends of the cross-head D.

A bar, *k*, under the bumper, unites with the braces at *h' h''*, and thus secures the bumper firmly in its place.

The two bars *j j*, extending from the joints *h' h''*, to the cross-head D, will prevent the bumper being forced upward.

There are also two strong iron braces, K K, which pass from *h'* and *h''* at the front of the bumper back over the sill C to a transom, *m*, to both of which they are firmly secured.

By this mode of constructing a platform greater strength is obtained. By having the rails B B extend out to the cross-head D or front end of the platform, and by having the platform floor and steps of iron and the brace-rods K K arranged as shown, the liability of the cars breaking into each other or telescoping, as it is termed, in cases of collisions, is overcome, as the timbers forming the base or foundation would come in contact directly end to end.

The plates F, forming the extension-platform in two contiguous cars, also touch each other at all times, so that the space between two cars is always closed.

The point of meeting of the two extension-platforms is over the central part of a rubber bulb, *n*, on the link between the two draw-heads.

The draw-heads or couplings (a former invention of mine) are designed to work in conjunction with this, my improved extension-platform.

I claim—

1. The combination and arrangement of the rails B B, blocks C C, bolt *c*, and braces K K, as and for the purpose described.

2. The combination and arrangement of the brace-rods *h h*, connecting bar *k*, and upright supports *j j*, with the draw-head G, substantially as shown, and for the purpose set forth.

Witnesses:

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