

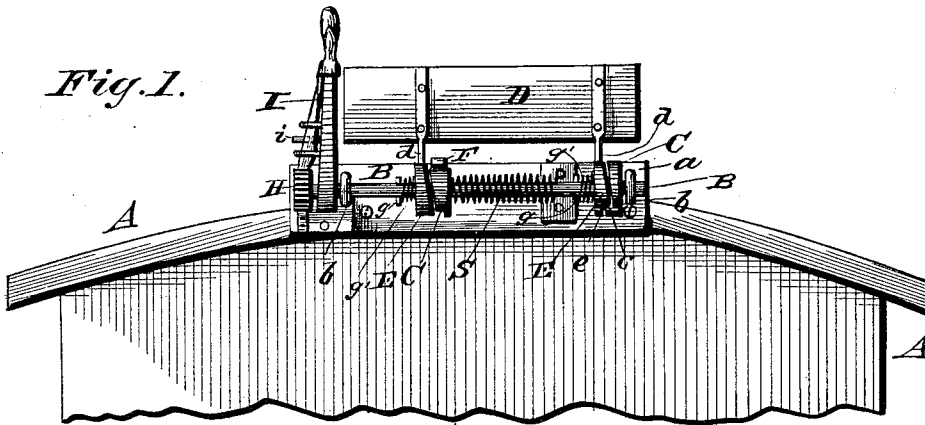
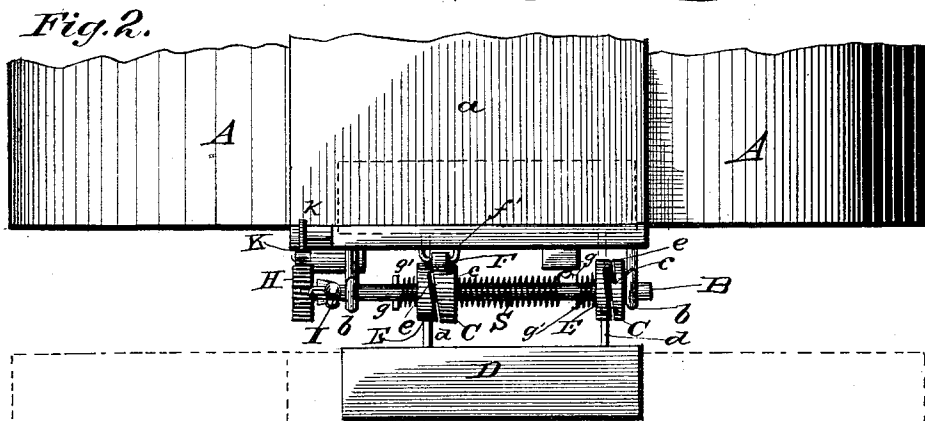
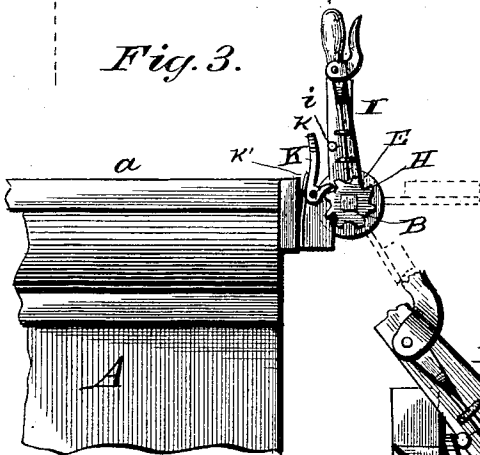
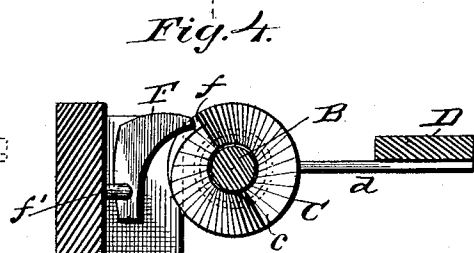
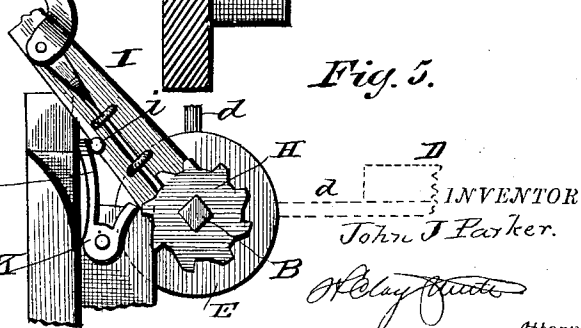
(No Model.)

J. J. PARKER.

SAFETY CAR PLATFORM.

No. 344,286.

Patented June 22, 1886.



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SAFETY CAR-PLATFORM.

SPECIFICATION forming part of Letters Patent No. 344,286, dated June 22, 1886.

Application filed November 14, 1885. Serial No. 182,879. (No model.)

To all whom it may concern:

Be it known that I, JOHN J. PARKER, a citizen of the United States, residing at Aitkin, in the county of Aitkin and State of Minnesota, have invented certain new and useful Improvements in Safety-Platforms for Railroad-Cars; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to freight or other cars; and the novelty consists in a safety-platform arranged upon one car, to serve with it and an adjacent one, as will be more fully hereinafter set forth, and specifically pointed out in the claims.

I will describe the invention as applied to ordinary freight-cars; but it will be understood that it may apply to any car which is operated from the top, or any car in which the brakemen have to pass from one car to another from top to top.

The invention consists, essentially, in a hinged platform carried permanently upon one car, and adapted to be either folded upon that car or over upon another car, to form a bridge between the two at will. The platform is solid or a skeleton, but is so constructed as to provide a safeguard against an attendant falling between the cars when in motion.

I provide means for automatically folding the safety-platform back upon its own car as soon as the uncoupling and departure of the adjacent car upon which it rests as a bridge shall have been accomplished.

I provide that the platform may rest between two cars at an incline—as when one car is higher than another—and that it may have liberty to rise and fall freely at either end to accommodate the rise and fall of the cars relatively to each other.

The invention, in what I consider the best way of carrying it out, is illustrated in the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is an end view of a car with my

improvement attached, the platform being shown up. Fig. 2 is a plan view showing in full lines the platform resting upon an adjacent car, and in dotted lines its position when folded. Fig. 3 is a side elevation showing the means for revolving the shaft to throw the spring at a tension. Fig. 4 is a section showing the trip in its relation with the shaft, and Fig. 5 is a detail showing the manner of disconnecting the shaft-holding pawl when the trip is engaged.

Referring to the drawings, A designates an ordinary freight-car, and *a* the walking board thereof. In bearings *b* at the end of the car I support loosely a shaft, B, which carries rigid collars C, having side catches, *c*, which, at suitable occasions to be described, are adapted to engage corresponding shoulders or catches, *e*, on collars E, loosely hung on the shaft B, and impelled in the direction of the collars C by springs *g*'. The loose collars carry rigid arms *d*, supporting a skeleton or other platform, D, and the springs *g*' are arranged between the collars E and stops *g*.

Secured at one end to any stationary part of the car or apparatus and at the other end to one of the catch-collars C is a spiral spring, S, and pivoted at *f*' is a trip or dog, F, the tooth of which engages the notch *f* of one of the collars C when the spring is under a tension, to prevent a back motion of the shaft B. The location of the notch *f* is adjacent to one of the catches or shoulders *e*, it being understood that the catches *e* and *c* are duplicated on each collar, and the trip is arranged to be thrown out of engagement with said notch by such catch *e*, as will be explained.

I designates a catch-lever, by means of which the shaft B may be revolved to throw the spring S under tension, and K designates a pawl arranged to operate in connection with a gear-wheel, H, rigid on the shaft B, and to take up and hold the motion imparted to such shaft by the said lever as against the action of the spring S. The pawl K has a long arm, *k*, which lies in the path of a pin or lug, *z*, on the lever I when said lever is folded down upon the car to which it is attached.

By means of the lever I and the pawl K the shaft B is revolved to put the spring under

tension, the pawl K holding all the motion taken up until the trip F engages its notch *f* on the collar C. The brakeman or other attendant then throws the platform D over upon the adjacent car as a bridge, as indicated in Fig. 2.

As the trip F is set and the platform in place, the lever I is allowed to fall upon its own car, and this action brings the pin *i* in contact with the arm *k* of the pawl K, as seen in Fig. 5, and serves to throw said pawl out of engagement with the gear H. This leaves the entire force of the spring S controlled by the trip F.

It will be observed that when the trip F is engaged with the notch *f* and the platform D is in position, the catches *c* and *e* are at a distance apart, and that the platform has perfect freedom to rise and fall with the motion of the cars without affecting in any manner the other parts of the device. Cars of greatly varying heights are readily accommodated by the platform. When, however, the adjacent car is liberated or uncoupled and passes from under the platform, there is nothing to prevent the platform from falling, and this will result until the back catch, *e*, of the collar E engages the trip F and forces it from its notch *f*. The spring now being allowed to act with its full force turns the shaft B, the shoulders *e* and *e* engage, and the platform is folded back upon its own car, as shown in dotted lines in Fig. 2.

A spring, as K', may serve with the pawl K, as indicated in Fig. 2, to throw the said pawl into engagement with the gear H as soon as the lever I is again raised.

The device may readily be applied to cars now in use.

Modifications in the details of construction may be made within wide limits without departing from the principle or sacrificing the advantages of the invention, and parts of the invention may be used without the whole.

I have described and shown a complete invention, and have designated what I consider the best means of carrying it out; but other means may be employed for rotating the shaft B to place the spring under tension, and other

means may be employed for liberating the trip.

The platform should be a skeleton, in order to avoid clogging with snow.

What I claim as new is—

1. In combination with a freight-car or the like, a safety-platform carried on one car, and arranged to be projected over and to rest with its outer end upon an adjacent car, and to be folded back upon its own car at will, as set forth.

2. A spring safety-platform arranged upon the end of a car, and held normally in the direction thereof with capacity to be projected so as to rest at its outer end upon an adjacent car, combined with a trip for controlling the spring, and a trigger for releasing the trip to throw the platform back upon its car, as set forth.

3. A spring-platform arranged to be folded upon one car and to be projected upon another adjacent car, a spring for holding the platform in the direction of its own car, and a trip for controlling the spring, the said trip being arranged to release the spring automatically when the adjacent cars are separated to allow the platform to fall by gravity, substantially as set forth.

4. The shaft B, having rigid catch-collars C, and the spring S, for holding the said shaft in one direction with a constant force, combined with a platform, D, supported on loose catch-collars hung on said shaft, and the trip F, as and for the purposes set forth.

5. The combination, with the shaft having catch-collars, and means, as I K, for placing the spring at a tension, of the platform supported on catch-collars hung loosely on said shaft, the trip F, and the dog or pawl K, arranged to be thrown out of operation by the pin *i* of the lever I, all combined, arranged, and operating as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN J. PARKER.

Witnesses:

S. S. LUTHER,

A. Y. MERRILL.