

(No Model.)

B. L. FERRIS.

SAFETY BRIDGE FOR RAILWAY CARS.

No. 298,075.

Patented May 6, 1884.

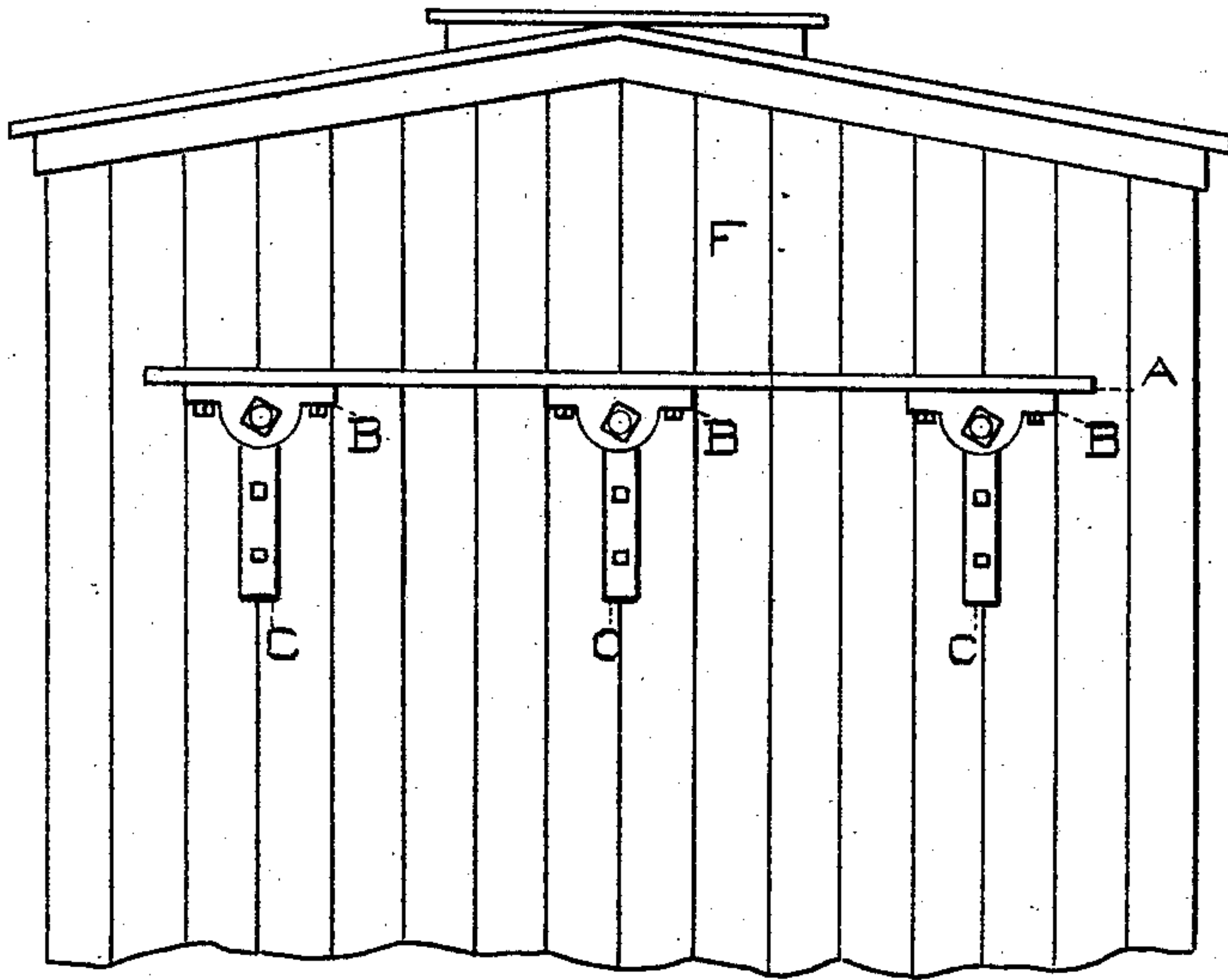


FIG 1.

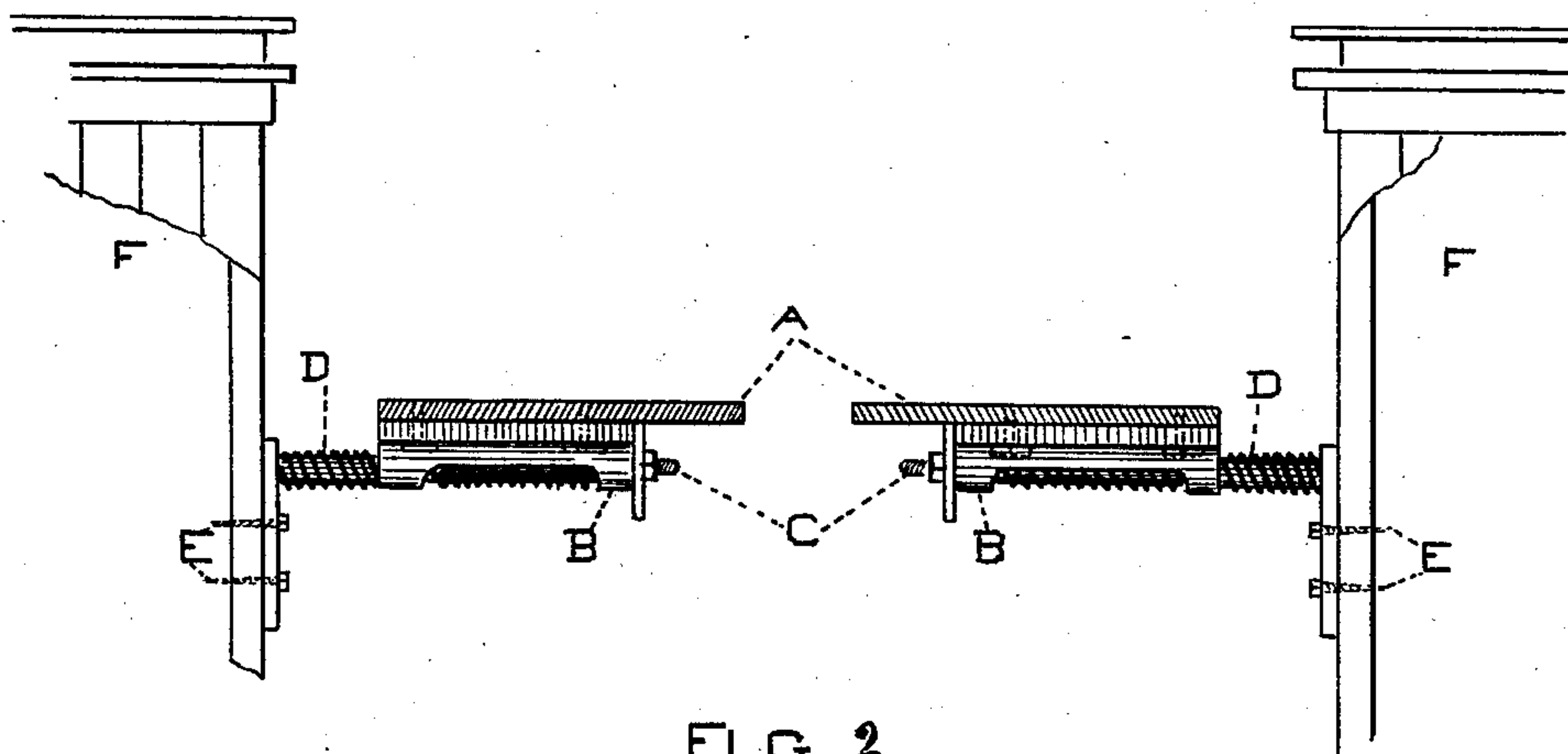


FIG 2.

WITNESSES:

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# UNITED STATES PATENT OFFICE.

BENJAMIN L. FERRIS, OF KANSAS CITY, MISSOURI.

## SAFETY-BRIDGE FOR RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 298,075, dated May 6, 1884.

Application filed January 18, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, BENJAMIN L. FERRIS, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Safety-Bridges for Railway-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 consists of a platform or a plank of suitable width, and of a length somewhat shorter than the width of the end of a freight-car to which it is applied; and its object is to prevent the falling of train-men from and between the cars to the track below, and the loss of life and limb consequent upon such a fall.

Figure 1 is an elevation of the end of a box-car with the device attached thereto; and Fig. 2 shows in sectional elevation two complete safety attachments, as they appear in practical operation with the cars in position on the track.

A represents a life-board secured at any desired height on the end of the car F, by the bracket C, to which it is loosely connected by the sliding bearings B.

In Fig. 2 the cars F are shown at their greatest distance apart, and while in this position the sliding bearings B are held in the position shown upon the brackets C by the coiled springs D. Should the cars, however, be suddenly brought together—as, for instance, in a slight collision, or an obstruction on the track—the front edges of the safety-boards A first come in contact. Then, as the movement continues, the springs D are compressed until the limit is reached by the dead-wood blocks on each car coming together. Should the cars be of different heights, the platforms A will readily pass each other. The apparatus thus adapts itself to all the different movements of the cars, and when, as in Fig. 2, the draw-

bars are fully distended there is not a sufficient opening between the guard-boards A to permit the body of a man to pass down to the wheels beneath; and no matter how slippery the car-top, or should a brake-wheel come off in the hands of a brakeman and he fall, the life-guard A will catch him; and although he may roll to either side and the ground, the injuries will be comparatively slight.

The sliding bearings B may be constructed of any suitable material; but, preferably, they should be cast-iron, and fastened to the boards A with screws or short bolts, as shown.

The brackets are preferably constructed of a single wrought-iron rod, of sufficient length and diameter, by bending to a right angle, flattening and upsetting the end that is attached to the car by the bolts E, and providing the longer arms, upon which slide the bearings B, with a screw-thread and nut, as represented.

Strengthening-braces may be provided for the brackets C, but they are unnecessary in the construction above described.

There may be two or more fastenings to the car for the platform A, and to prevent twisting and sagging three are used, as shown in Fig. 1.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a safety-bridge for freight-cars, the combination, with the wooden platform A, attached to the end of a car, through the medium of sliding blocks B, brackets C, and wood-bolts E, of the short springs D, substantially as shown and described.

2. A safety attachment for cars, having a narrow platform of wood, A, loosely connected to stationary supporting-brackets, in the manner substantially as shown and described, and for the purposes herein set forth.

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

BENJAMIN L. FERRIS.

Witnesses:

A. H. JEWELL,  
J. W. HILL.