J. A. MUSGROVE, Jr.

SAFETY BRIDGE FOR CARS.

APPLICATION FILED MAY 19, 1908.

915,622.

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Fig. 1.

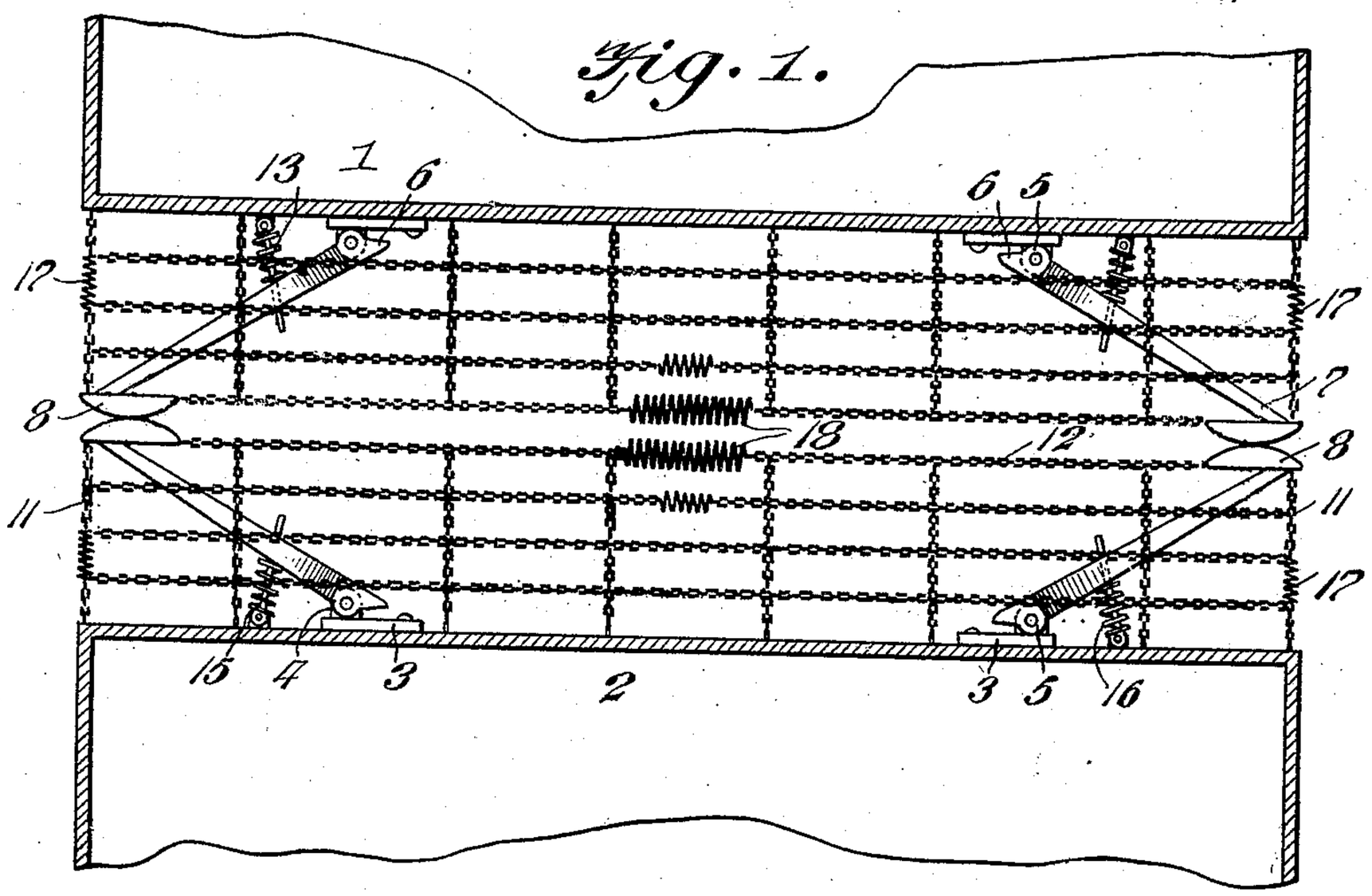


Fig. 2.

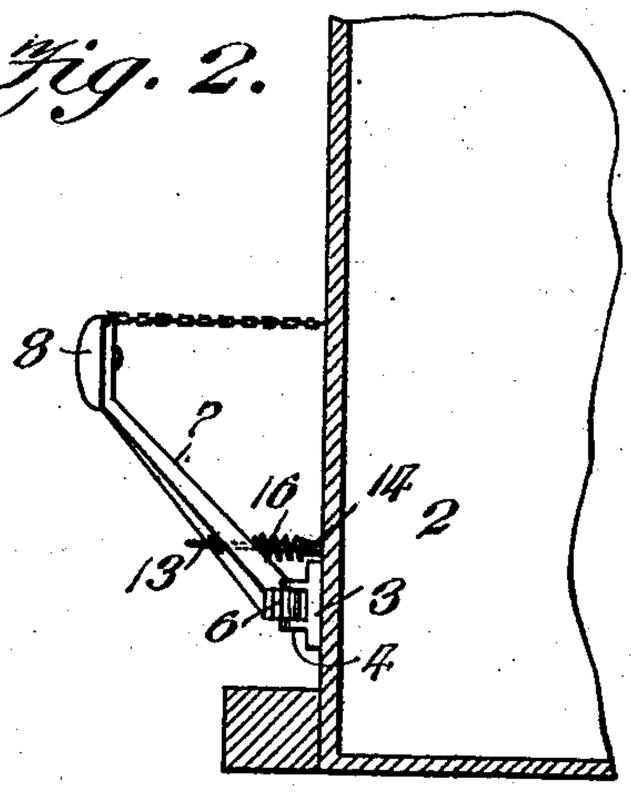
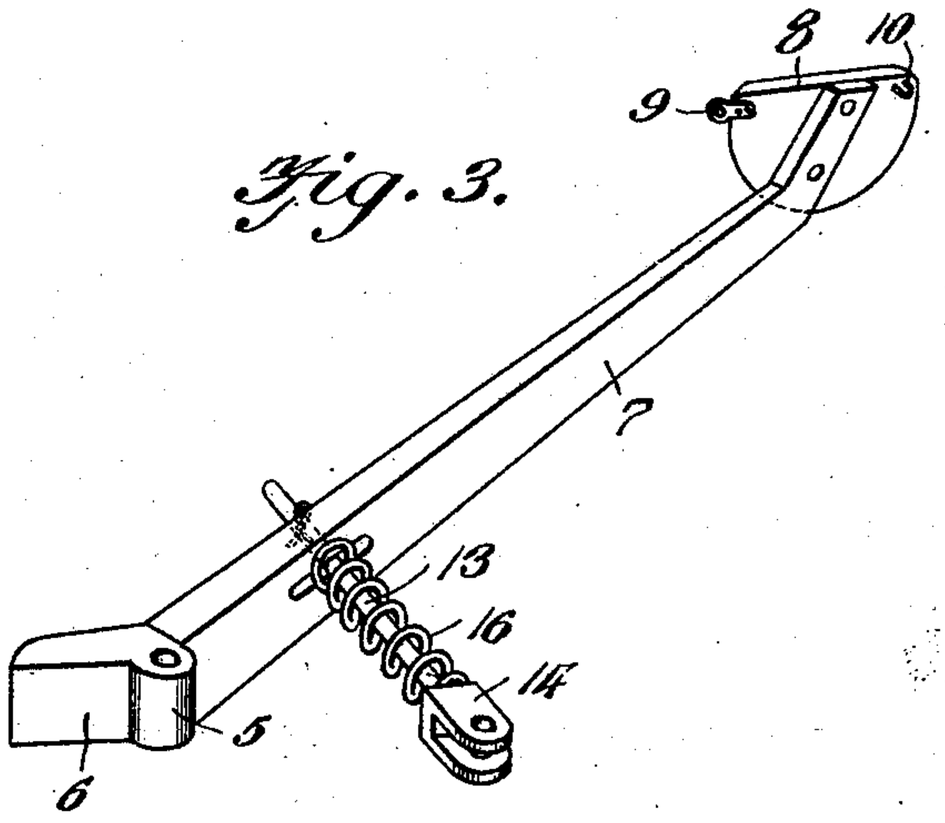


Fig. 3.



Witnesses

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JAMES A. MUSGROVE, JR., OF NORTON, VIRGINIA, ASSIGNOR OF ONE-HALF TO CAMM H. PATTESON, OF NORTON, VIRGINIA.

SAFETY-BRIDGE FOR CARS.

No. 915,622. Specification of Letters Patent. Patented March 16, 1909.

Application filed May 19, 1908. Serial No. 433,768.

To all whom it may concern:

Be it known that I, JAMES A. MUSGROVE, Jr., a citizen of the United States, residing at Norton, in the county of Wise and State of Virginia, have invented new and useful Improvements in Safety-Bridges for Cars, of which the following is a specification.

This invention relates to safety bridges for freight cars, and the object of the invention is to provide the ends of cars with a flexible yieldable platform which will effectively support a person falling between the cars.

With these objects in view the invention resides in the novel construction of elements and their arrangement in operative combination, hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is a longitudinal sectional view of a pair of freight cars provided with the improvement. Fig. 2 is a partial vertical longitudinal sectional view of one of the cars with the improvement in position thereon. Fig. 3 is a perspective view of one of the supporting arms.

In the accompanying drawings the numerals 1 and 2 designate a pair of connected freight cars. Each of these cars have their adjoining ends thus provided with a pair of plates 3. These plates 3 are secured to the ends of the car a suitable distance from the side thereof, and are provided with ears 4, adapted for the reception of a knuckle 5 provided upon the horizontal portion 6 of an inclined supporting arm 7. This arm 7 has its upper extremity offset, and secured to this offset is a buffer member 8 having its outer face rounded as clearly illustrated in Figs. 1 and 2 of the drawings. This buffer member 8 has its inner face provided near its upper edges with suitable staples or eyes 9 and 10. The eye 10 is adapted to receive a longitudinally extending flexible member, such as a chain 11. The opposite end of the chain 11 is secured in any suitable manner to the end of the cars adjacent the side thereof. The eye 9 of the buffer is adapted for the reception of a transverse flexible member, such as a chain 12. It is to be understood that a pair of supporting arms are provided upon the end of each of the cars, and that the flexible element 12 connects with the buffers of both of the supporting arms. The platform upon each of the cars comprises a plurality of spaced flexible elements running transversely with the end of the car and connected with the end longitudinally extending flexible elements 11. A plurality of spaced longitudinal flexible elements are also employed, and these elements connect with the transverse elements so as to provide a flexible, yieldable platform.

In order to retain the supporting arms 7 normally pressed away from the ends of the cars so as to retain the platforms substantially taut, the arms 7 are provided with a suitable opening adapted for the reception of a rod 13, having one of its ends provided with ears 14 adapted for pivotal connection with an ear 15 secured upon the ends of the car. The outer end of the rod 13 is provided with a suitable perforation adapted for the reception of a cotter pin, or like securing device, by which the rod is retained in position upon the arm 7. Interposed between the inner face of the arm 7 and the ears 14 is a helical spring 16, which normally tends to force the arm outward until contacted by the cotter pin or other securing device.

It is to be understood that when a pair of cars provided with the improvement are coupled together, the buffers 8 contact with each other, and the platform being yieldable, as well as the supporting arms being pivoted the car may readily round ordinary curves of the rails without interfering with the flexible platforms.

In order that the platforms may be rendered sufficiently yieldable to allow the cars to round sharp curves in the rail, the end longitudinal flexible elements are provided with tension springs 17, and the outer, and if necessary next to the outer, transverse flexible element 12 is provided with tensional springs 18, preferably centrally positioned. By this arrangement it will be noted that the platforms are readily yieldable, and adapt themselves to the various inclinations which the ends of the cars assume when rounding sharp curves.

Having thus fully described the invention what is claimed as new is:

1. In a safety bridge for cars, a platform constructed of a plurality of flexible longitudinal elements having one of their ends connected with the car and a plurality of connecting flexible transverse elements, and inclined spring pressed members pivotally connected with the car and having buffer

heads secured to the end sections of the flexible members.

2. A freight car having a pair of supporting arms pivotally connected to the end thereof, buffers upon the arms, tensional devices normally forcing the arms away from the car, means for limiting the movement of the arms, eyes upon the buffer, longitudinal flexible elements provided with a tension element connected with one of the eyes and to the end of the car, a transverse flexible element provided with a tensional element connecting the opposite eyes of the buffers, a plurality of transverse flexible elements connecting the longitudinal elements, and a plurality of flexible elements connecting the transverse elements and secured to the end of the car.

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

JAMES A. MUSGROVE, JR.

Witnesses:

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