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F. GEHRICKE & F. BOLLMANN.

SAFETY DEVICE FOR RAILWAY VEHICLES IN CASE OF DERAILMENT.

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NO MODEL.

Fig. 1.

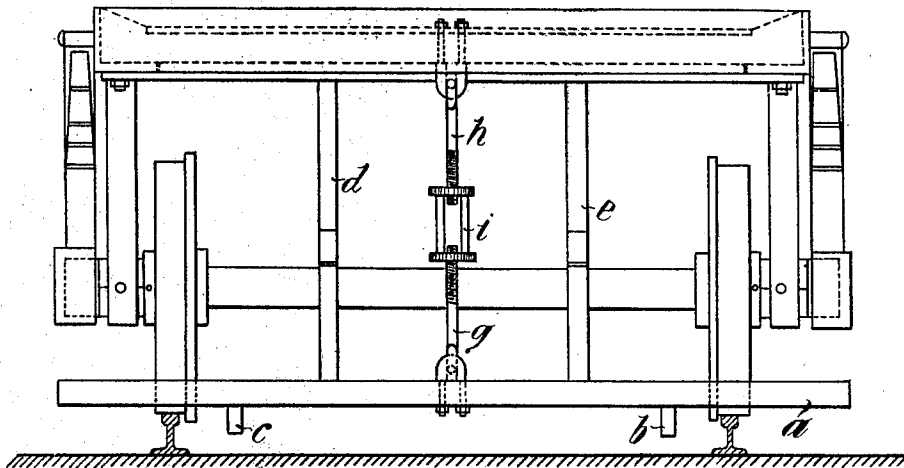
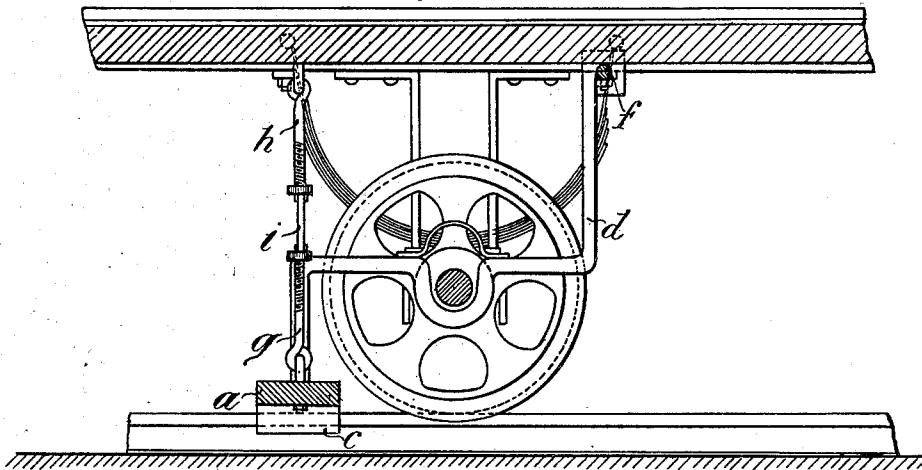


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

FRIEDRICH GEHRICKE AND FRIEDRICH BOLLMANN, OF BERLIN, GERMANY.

SAFETY DEVICE FOR RAILWAY-VEHICLES IN CASE OF DERAILMENT.

SPECIFICATION forming part of Letters Patent No. 735,239, dated August 4, 1903.

Application filed October 30, 1902. Serial No. 129,350. (No model.)

To all whom it may concern:

Be it known that we, FRIEDRICH GEHRICKE and FRIEDRICH BOLLMANN, subjects of the King of Prussia, Emperor of Germany, and residents of Berlin, Germany, have invented an Improved Safety Attachment for Railway-Vehicles, of which the following is a specification.

This invention relates to the application to railway-vehicles of an appliance having for its object to prevent the vehicle from passing entirely off the rails when the wheels become derailed and to support it in such manner as to allow of its continued travel. For this purpose there is arranged in front of or behind each pair of wheels a transverse bar adapted to come into contact with and slide upon the rails when the wheels become derailed, such bar being provided with downward extensions situated between the rails. So long as the wheels of the vehicle run upon the rails the skidding-bar is raised up to a certain height from the rails; but when the wheels are derailed the bar sinks onto the rails and at the same time the one or other downward extension comes into contact with the inner side of the corresponding rail, according to the direction in which the wheels have run off the rails. By this means the vehicle is prevented from passing entirely off the rails and can continue to travel by reason of the skidding-bar sliding along the rails.

The invention is shown on the accompanying drawings, in which—

Figure 1 is a front view of portion of a car-truck provided with our improvement, and Fig. 2 is a vertical cross-section of the same.

a is the skidding-bar, extending transversely across the track and having downward projections *b c* situated, respectively, near the inner side of each rail. *d* and *e* are cranked levers the lower ends of which are bent downward and secured to the skidding-bar while the upper ends are pivotally connected to a transverse bar *f*, fixed to the under side of the car or vehicle so that they can rock thereon in a vertical direction, but cannot shift in a horizontal direction. The levers are curved around the under side of the wheel-axle, so that on the derailling of the wheels the lever will bear with such curved part against the under side of the axle. The skid-

ding-bar is held at a certain distance from the rails by means of any suitable device. In the arrangement shown by way of example there are attached, respectively, to the vehicle-body and to the skidding-bar rods *h* and *g*, having right and left handed screw-threads on which is screwed a double nut *i*, so that by turning this in the one direction or the other the skidding-bar *a* can be adjusted to a higher or lower position. This adjustment will depend upon the extent to which the vehicle is loaded, as with a heavy load the body of the vehicle would sink somewhat on the springs and the bar *a* would be brought correspondingly nearer to the rails and would require to be adjusted higher in order to prevent it from coming in contact with the rails while the wheels are running thereon.

The means of adjustment should preferably be so arranged in any known manner that it can be worked from the side of the vehicle.

With vehicles having two or three wheel-axes one such appliance should be provided for each axle. With vehicles having four axes, each two of which are mounted on a swiveling bogie-frame, one skidding-bar would have to be provided in front of and behind each bogie.

It will be seen that on a pair of wheels becoming derailed the vehicle-body would sink so as to bring the skidding-bar *a* onto the rails and at the same time the levers *d e* would support the vehicle-body upon the bar *a* by taking a bearing upon the under side of the wheel-axle.

What we claim is—

1. The combination with a railway-vehicle of a skidding-bar, of downward projections attached to said skidding-bar between the rails, an adjustable connection of this bar to the carriage-body adapted to hold the bar at a certain distance above the rails, levers so formed as to take a bearing against the axle when the skidding-bar bears against the rails, substantially as set forth.

2. In a car, a skidding-bar extending transversely across the track, combined with levers connected to said bar and having bearings beneath the car-axle, and with means for suspending the bar from the car, substantially as specified.

3. In a car, a skidding-bar extending trans-

versely across the track and having depending projections between the rails, combined with levers having bearings beneath the car-axle, and with means for adjustably suspending the bar from the car, substantially as specified.

In witness whereof we have hereunto signed

our names in the presence of two subscribing witnesses.

FRIEDRICH GEHRICKE.
FRIEDRICH BOLLMANN.

Witnesses:

HENRY HASPER,
WOLDEMAR HAUPT.