

J. R. CRABILL.

Car Bumper.

No. 113,633.

Patented April 11, 1871.

FIG. 1

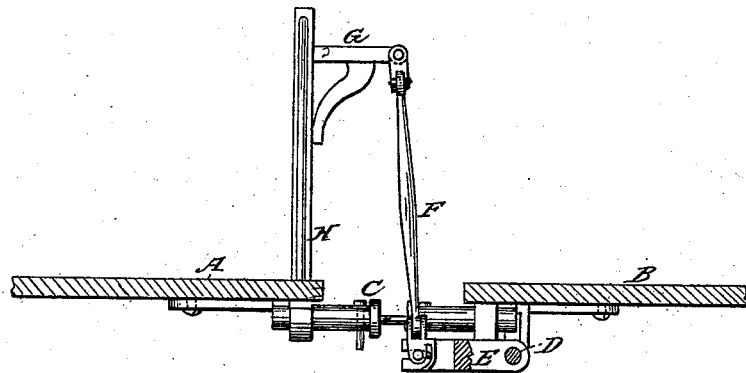
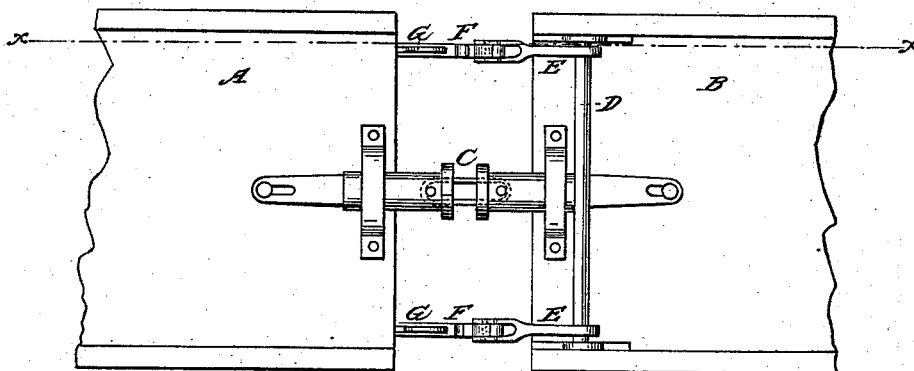


FIG. 2



WITNESSES:  
A. Bennerman & Co.  
Wm. H. C. Smith.

INVENTOR:  
J. R. Crabill.  
PER *M. M. Smith*  
Attorney.

# UNITED STATES PATENT OFFICE.

JOSEPH R. CRABILL, OF LA CROSSE, ILLINOIS, ASSIGNOR TO HIMSELF AND  
FRANK B. MODICA, OF SAME PLACE.

## IMPROVEMENT IN CONNECTIONS FOR RAILWAY-CARS.

Specification forming part of Letters Patent No. **113,633**, dated April 11, 1871.

*To all whom it may concern:*

Be it known that I, JOSEPH R. CRABILL, of La Crosse, in the county of Hancock and State of Illinois, have invented a new and useful Improvement in Anti-Rocking Attachment for Railroad-Cars; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing, forming part of this specification, in which—

Figure 1 is a side view of my improved device as attached to two railroad-cars, partly in section, through the line *x x*, Fig. 2. Fig. 2 is an under-side view of the same.

Similar letters of reference indicate corresponding parts.

My invention has for its object to furnish an improved device for attachment to the adjacent ends of railroad-cars to diminish or stop the vibration or rocking of the cars independent of each, so that the rocking or vibration of each car may be resisted and counteracted by the inertia or weight of all the other cars of the train; and it consists in the device for this purpose, constructed as hereinafter more fully described.

A and B represent the bodies of two adjacent cars, which are coupled by an ordinary coupling, C.

To the end part of one of the cars, as B, are securely and strongly pivoted the ends of the shaft D, to which, near its ends, are keyed or otherwise securely and rigidly attached two projecting arms, E. The outer ends of the arms E are slotted vertically, to receive the lower ends of the connecting-bars F. The lower ends of the bars F have each a curved slot formed in it, to receive a pin attached to the slotted end of the arm E. The end of each

of the arms E is slotted transversely, to receive the ends of a pin passing through and projecting from the sides of the end of the said bars F. This connection allows the bars F and arms E to separate automatically as the cars are uncoupled and run apart, and at the same time allows the bars F to have a free vertical movement. The lower ends of the bars F, close to the end of the arms E, are jointed to give the said bars F a free lateral movement, the bars F and arms E being thus connected by a double-jointed connection. The upper ends of the bar F are connected, by a double-jointed connection, to the outer ends of the arms G, the inner ends of which are rigidly and strongly attached to standards H, the lower ends of which are secured to the framework of the other car, A.

By this construction, when any one of the cars may be vibrated or rocked by a depression of a rail or other cause, the tendency will be resisted by the weight or inertia of all the other cars, so that no one of the cars of a train can rock without all the other cars rocking with it.

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

The rock-shaft D, rigid arms E, connecting-bars F, with their double-jointed connections, rigid arms G, and standards H, constructed and combined with each other substantially as herein shown and described, to adapt them for attachment to the adjacent ends of two railroad-cars, as and for the purpose set forth.

JOSEPH R. CRABILL.

Witnesses:

J. A. MODICA,  
P. B. MODICA.