R. HEMMING.

Car Coupling.

No. 4,233. Patented Oct. 11, 1845.

Fig. 1.

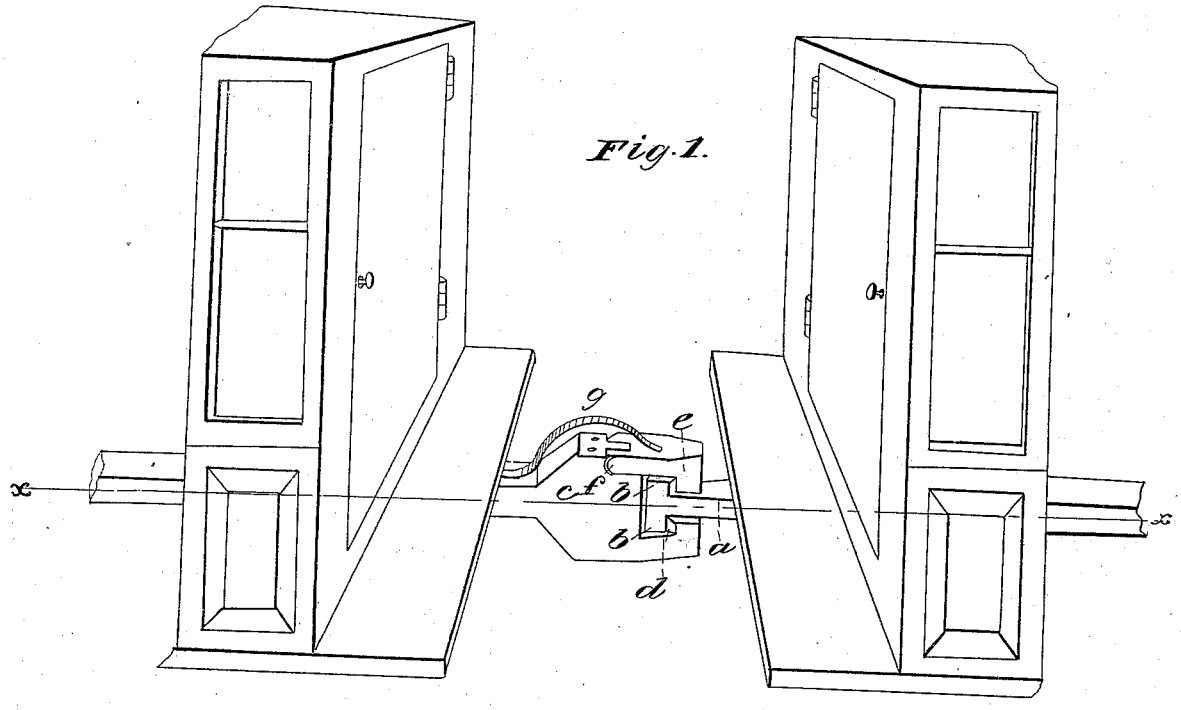
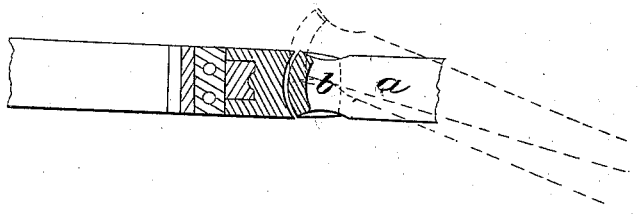


Fig. 2.



UNITED STATES PATENT OFFICE.

RICHARD HEMMING, OF BOSTON, MASSACHUSETTS.

CONNECTING-LINK FOR RAILROAD-CARS.

Specification of Letters Patent No. 4,233, dated October 11, 1845.

To all whom it may concern:

Be it known that I, RICHARD HEMMING, of the city of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in links for connecting railroad-cars, locomotives, &c., which will liberate itself when the locomotive or any of the cars runs off the track, and thus prevent the other cars in the train from being drawn off, and that the following is a full, clear, and exact description of the principle or character which distinguishes it from all things before known and of the manner of making, constructing, and using the same, reference being had to the accompanying drawings, which make part of this specification, in which—

Figure 1 is a perspective view of the link connecting two cars together, and Fig. 2, a horizontal section, taken at the line X X of Fig. 1.

The same letters are used in all the figures to indicate like parts.

The nature of my invention consists in providing the link with a segment of a circular flanch above and below, embraced by corresponding recesses in jaws (one of which is jointed) in the end of the draft beam of one of the cars, the center of the circle of the flanches corresponding with any point desired between the two cars, so that the flanches shall slide in the recesses when the cars deviate from a straight line, but shall slide entirely out when either of the cars runs off the track.

The link (*a*) is made with two flanches (*b*, *b*) one above and the other below, and of sufficient strength to draw the train without the liability to buck. These flanches are of the form of a segment of a circle struck from a point taken somewhere between it and the car to which it is attached, and the length of the segment can be in proportion to the angle which the cars are to make in passing around the smallest curve on the road, and therefore can be regulated at pleasure. The end of the draft beam (*e*) of the next car is enlarged and cut out as it (*d*) to receive the end of the link and embrace the flanches, and at the same time permit them to slide freely. By reference to the dotted lines in Fig. 2 it will be seen that the moment the cars deviate from the true line sufficiently to carry one end of the flanches beyond a line running from the off side of the draft beam (*c*) to the center of the truck to which the link (*a*) is attached, that the flanches will be liberated and the cars separated, so that the constructor can regulate the length of the flanches to have them escape at any angle desired.

The upper portion (*e*) of that part of the draft beam which embraces the flanches is jointed to the main body thereof as at (*f*) and the inner edge of the flanch (*b'*) of the link (*a*) is rounded off a little so that if by any accident one of the cars should be thrown sufficiently out of the horizontal line to endanger the safety of the train this jaw will be opened and liberate the flanches. A spring (*g*) is attached to the draft beam with its end bearing on the jointed part (*e*), for the purpose of keeping it in place except when an unusual force is applied. This jointed part is not indispensable to the liberation of the link in a horizontal direction, and therefore the flanched link may be used without it, but by their combined use, a car will be liberated from the train when moving out of the proper line of the road, either horizontally, perpendicularly or both together.

What I claim as my invention and desire to secure by Letters Patent, is—

Connecting railroad cars, locomotives, &c., by a link provided with a segment or segments of a circular flanch, which will be liberated when the bodies thus connected deviate sufficiently from the line of the road, substantially as described, in combination with a spring joint as herein described, to facilitate the liberation of the link when the car &c., leaves the track by a motion upward or downward as well as horizontal, as set forth.

RICHARD HEMMING.

Witnesses:

CHS. M. KELLER,

J. J. GREENOUGH.