

W. WARINNER & W. L. D. JOHNSON.

Link-Guides for Car-Couplings.

No. 144,297.

Patented Nov. 4, 1873.

Fig. 1.

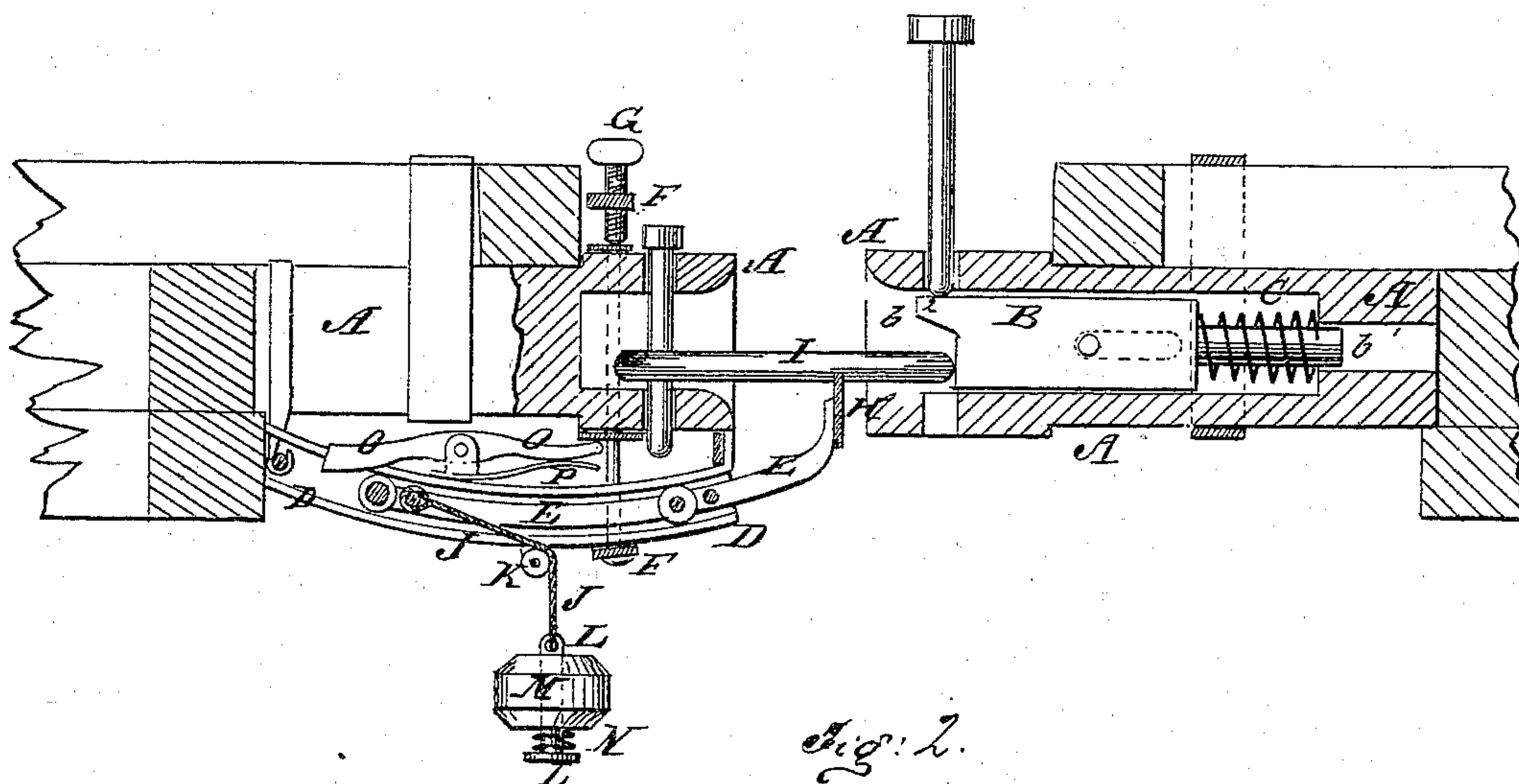
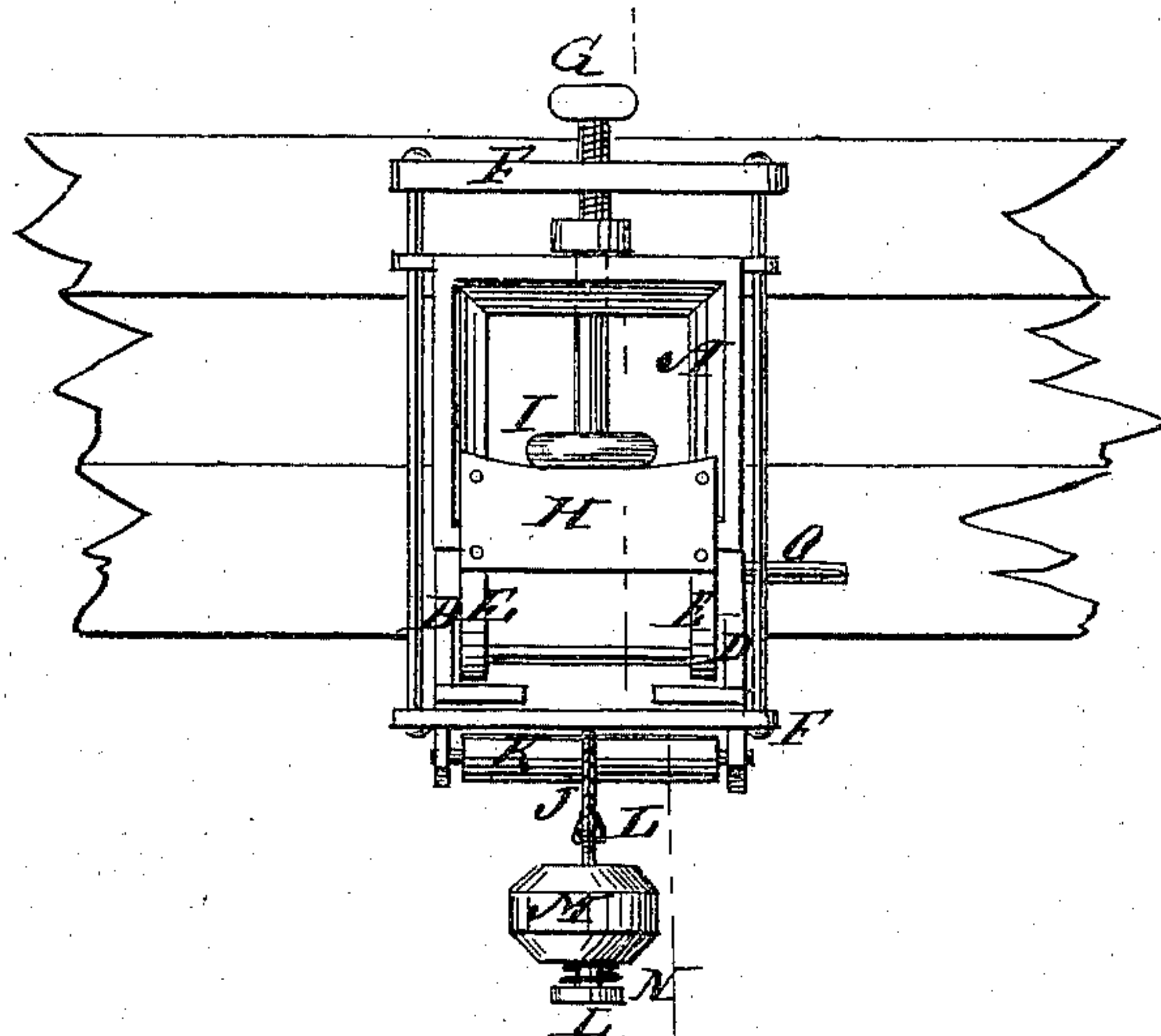


Fig. 2.



Witnesses:

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# UNITED STATES PATENT OFFICE.

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KENTUCKY.

## IMPROVEMENT IN LINK-GUIDES FOR CAR-COUPPLINGS.

Specification forming part of Letters Patent No. **144,297**, dated November 4, 1873; application filed  
June 14, 1873.

*To all whom it may concern:*

Be it known that we, WILLIAM WARINNER and WILLIAM L. D. JOHNSON, of Creelsborough, in the county of Russell and State of Kentucky, have invented a new and useful Improvement in Car-Coupling, of which the following is a specification:

Figure 1 is a vertical longitudinal section of our improved car-coupling. Fig. 2 is a front view of the same.

Similar letters of reference indicate corresponding parts.

This invention will first be fully described and then clearly pointed out in the claim.

A represents the bumper-heads of the cars, which are constructed in the ordinary manner, except that their cavities are deepened, and have blocks B inserted in them. The blocks B have stems *b'* formed upon their inner ends, which enter holes in the inner parts of the bumpers A, and around which are coiled the springs C, by which the blocks B are held forward. Upon the upper part of the forward ends of the blocks B are formed lips or flanges *b<sup>2</sup>* to support the pin when withdrawn, as shown in Fig. 1. D is a curved frame, upon the inner sides of the side bars of which are formed grooves to receive the side bars of the inner frame E. The rear end of the frame D is hinged to the rear part of the bumper-head A, and its forward part is supported by a yoke, collar, or frame, F, which passes around and is secured to the frame D, and the side bars of which pass through guides attached to the bumper-head A. The frame F is made larger vertically than the bumper A and frame D, and is supported by a hand-screw, G, which screws through the top bar of said frame and rests upon the upper side of the bumper A, so that the frame D can be raised and lowered, according to the height of the adjacent car, by simply turning the said screw G. To the outer end of the frame E is attached a plate, H, which, as the said frame E is drawn outward, comes into such a position

as to support the link I in a horizontal position. To the rear part of the inner frame E is attached one end of a small rope or chain, J, which passes over a roller, K, pivoted to the middle part of the frame D. To the other end of the cord or chain J is attached the end of a short rod, L, upon which is placed a weight, M, of sufficient size to draw the frame E forward as soon as released. The weight M is supported by a small coiled spring, N, placed upon the lower part of the short rod L to relieve the jar when the cars are run together, and the weight M is drawn upward. The frame E is held when pushed inward by the lever-pawl O pivoted to the frame D and held to its place by a spring, P, attached to said frame D, and pressing against the forward part of the said lever-pawl O. The forward end of the lever-pawl O projects at the side of the bumper A, so that it can be readily operated to release the frame E and allow it to be drawn forward by the weight M.

For convenience, each bumper should be provided with the device for supporting the link, and with the device for supporting the pin, which devices do not all interfere with each other.

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

The hinged and grooved curved frame D, the sliding curved frame E, the supporting and adjusting frame F, and hand-screw G, the chain, weight, and roller J, M, K, and the pawl and spring O P, in combination with the bumper-head A, substantially as herein shown and described.

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Witnesses:

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