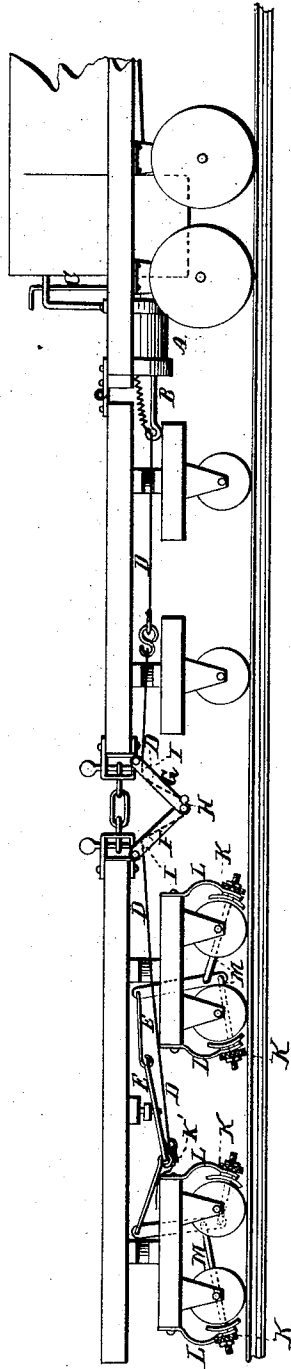


L. T. HAY.
Car-Brake.

No. 160,428.

Patented March 2, 1875.



WITNESSES
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By

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UNITED STATES PATENT OFFICE.

LAMAR T. HAY, OF XENIA, OHIO.

IMPROVEMENT IN CAR-BRAKES.

Specification forming part of Letters Patent No. **160,428**, dated March 2, 1875; application filed May 28, 1874.

To all whom it may concern:

Be it known that I, LAMAR T. HAY, of Xenia, in the county of Greene and State of Ohio, have invented certain new and useful Improvements in Railroad-Car Brakes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to certain new and useful improvements in car-brakes.

In the drawings is represented a side elevation of a train of cars with my improvement attached.

My invention consists in the combination and arrangement of devices and appliances, as hereinafter set forth and claimed, wherein A represents a cylinder, adjacent to the locomotive, in which operates a piston, B, governed by a valve-rod, C. D is the brake-cord, attached to the piston B, and extending back, where it is attached to the brake-rod E of the cars. F G represent a coupling device for the brake-cord, consisting of two frames, hinged to the cars respectively, and to each other. At the junction of the two frames is a roller, H, and adjacent to the cars, on each side, are rollers I I. The cord or chain, coming from the brake-rod E, passes over the first roller I, under the roller H, and over the second roller I. As the cars come together this frame will yield downward, keeping the chain or cord taut, while the frame itself will only yield as the cars separate or come together. It is evident that the cars back of the first one can

be connected to the first in the same manner by carrying the brake cord or chain right back through the train, connecting it with the brake-levers under each car successively, or, as is shown in the drawing, attaching it to the brake-rod E in succession.

In order that quick strains may not come upon the cord or chain D and frame F G, to derange them, I employ rubber springs K K at the ends of the rods M, when they pass through the brake-bars L, and also at intervals along the brake chain or cord, where they are attached to the brake-rods E, as at K'. The rods M pass through the bars L, and then through the rubber, so that quick and sudden strains are extended upon the rubber springs.

Although I make use of, and describe and illustrate this yielding frame or cord-connection between the cars, yet I lay no claim thereto, as this is old, and forms the subject of patents granted prior to this application.

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

The combination, with the brake cord or chain D, yielding frame F G, brake-rods E, and brake-connections, of the rubber springs K K', whereby the cord D, yielding frame F G, and brake-shoes are relieved of sudden strains, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand this 9th day of May, 1874.

LAMAR T. HAY.

Witnesses:

T. R. BURROWS,
B. B. HAY.