(No Model.)

2 Sheets—Sheet 1.

E. C. GLOVER

CAR BRAKE.

No. 422,519. Patented Mar. 4, 1890.

Fig. 1.

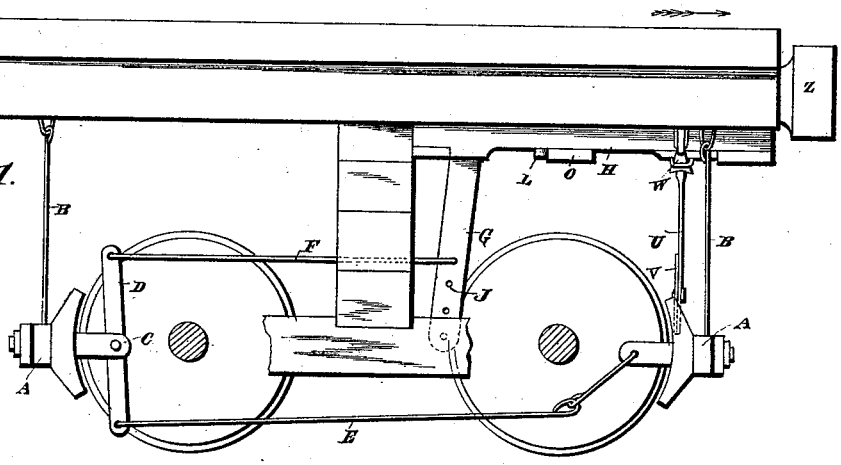


Fig. 2.

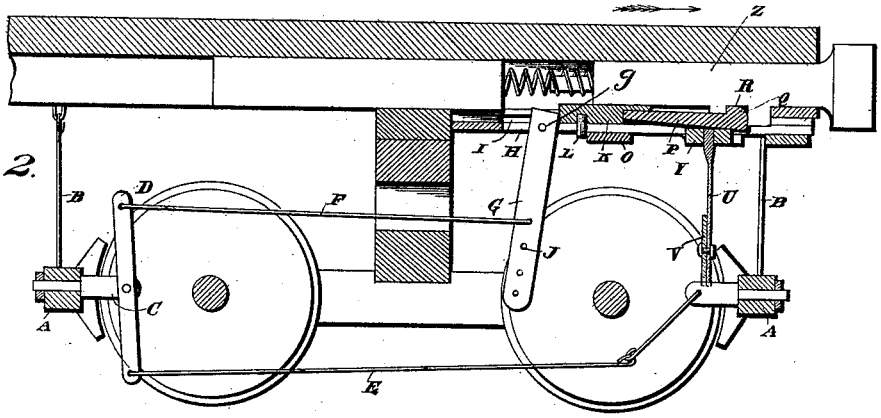
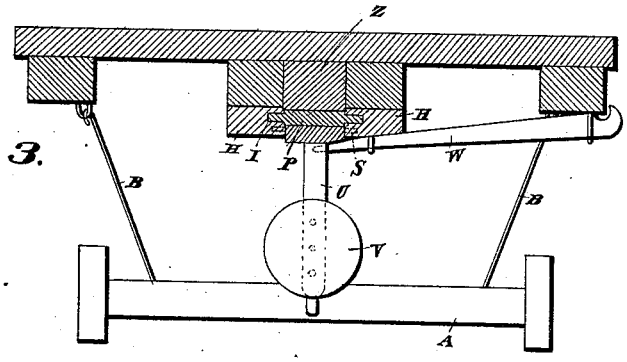


Fig. 3.



Witnesses,
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N. L. Collamer.

Inventor
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By his Attorneys
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(No Model.)

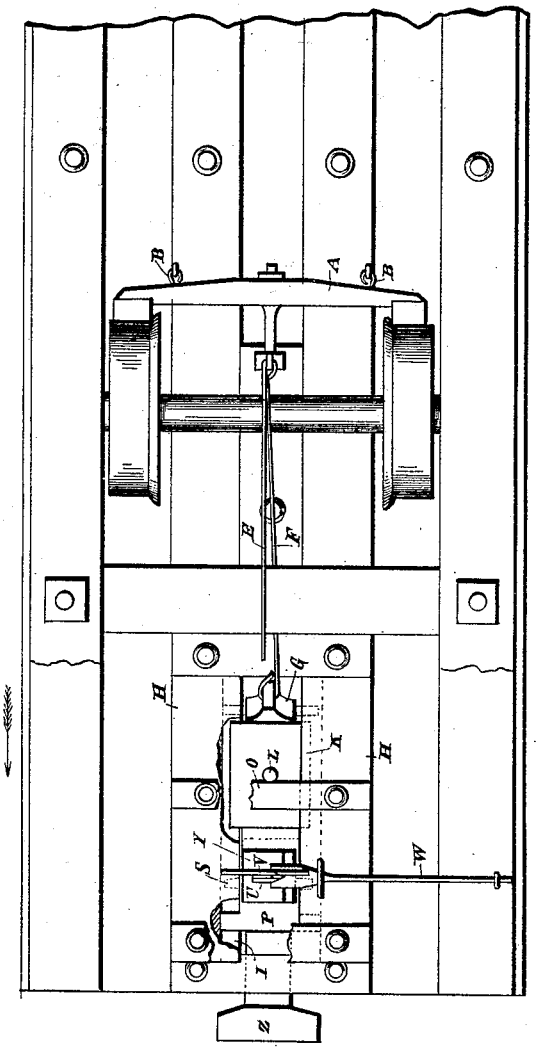
2 Sheets—Sheet 2.

E. C. GLOVER.

CAR BRAKE.

No. 422,519. Patented Mar. 4, 1890.

Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

EDMOND C. GLOVER, OF RANDALL, ARKANSAS.

CAR-BRAKE.

SPECIFICATION forming part of Letters Patent No. 422,519, dated March 4, 1890.

Application filed December 21, 1889. Serial No. 334,497. (No model.)

To all whom it may concern:

Be it known that I, EDMOND C. GLOVER, a citizen of the United States, residing at Randall, in the county of Cleveland and State of Arkansas, have invented a new and useful Car-Brake, of which the following is a specification.

My invention relates to improvements in car-brakes; and it consists in certain novel features hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a side view of my improved brake with the near wheels removed. Fig. 2 is a longitudinal section of the same. Fig. 3 is a transverse section. Fig. 4 is a bottom plan view with parts broken away.

The brake-beams A A are suspended from the bottom of the car by the links B in the usual manner, and the brake-shoes are secured to the ends of the beams and bear on the car-wheels, as will be readily understood. The rear brake-beam is provided on its inner side with an arm C, and a lever D is fulcrumed on the said arm. This lever has its lower end connected with the front brake-beam by the connecting-rod E, and its upper end is connected by a rod F with a lever G. This lever G is pivoted at its upper end, as at *g*, between the longitudinal rails H, which are secured to the bottom of the car at the ends of the same, and are provided with grooves I in their inner faces. The lower end of the lever is provided with a series of perforations J, so that the stroke of the lever may be varied by engaging the front end of the connecting-rod with one or another of the said perforations, as will be readily understood.

Between the rails H and engaging the grooves therein I arrange a slide K, which is adapted to strike against the upper end of the lever G and thereby vibrate the said lever, and this slide is prevented from moving too far forward by a pin L, depending from its under side and adapted to impinge against the cross-bar O, as will be readily understood. In advance of this slide K, I arrange a plate P, which is provided with lateral pins at its front end, adapted to engage the groove I and thereby support the said plate, and on the upper side of said plate, at the front end of the same, I form the transverse rib or flange Q, which is engaged by a groove R in the under side of the draw-head Z. A rock-shaft S is mounted between the rails and is provided with an extension-key Y, upon which the plate P normally rests. An arm U depends from this rock-shaft, and a fan or disk V is secured to the lower end of said arm. A sliding rod W is mounted transversely on the bottom of the car, and it is adapted to engage the arms U to prevent oscillation of the said rock-shaft when so desired.

In practice when the train is moving very rapidly the force of the wind, acting on the fan or disk, will throw the same rearward, thereby causing the extension Y of the rock-shaft to impinge against the plate P and raise the said plate, so that its rear end will engage the front end of the slide K. When the parts are arranged in this manner, any sudden reduction in the speed of the train will cause the ends of the adjacent cars to abut against each other and thereby throw the draw-head inward, consequently pushing the slide rearward, so as to vibrate the lever G about its pivot *g*, and thereby draw on the brake-beams, so as to apply the shoe to the wheels.

From the foregoing description it will be seen that I have provided a car-brake which will be automatically applied when the speed of the car is suddenly reduced, so as to prevent telescoping of the cars. When the car is at rest, the plate P hangs slightly downward, so that any rearward motion imparted thereto by the draw-bar will push it beneath the slide K, and consequently the brakes will not be applied and the cars can be easily started. If it is desired to move the cars backward at a considerable speed, the bar W is pushed inward, so as to engage the arm U and prevent oscillation of the rock-shaft, and the arms W at the rear trucks of the cars of a moving train must be so set, as will be understood.

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

1. The combination, with the rails, of the lever pivoted between the same and connected with the brake-beams, the slide mounted between the rails and adapted to vibrate the lever, the plate adapted to engage said slide, and means for operating said plate, as set forth.

2. The combination of the vibrating lever connected with the brake-beams, the slide acting on said lever, the plate adapted to engage the slide, means for moving the said plate longitudinally, the rock-shaft acting on said plate and having a depending arm, and a fan carried by said arm, as set forth.

3. The combination of the vibrating lever connected with the brake-beams, the slide acting on said lever, the plate adapted to engage said slide, the rock-shaft adapted to act on said plate and having a depending arm and a fan carried by said arm, and the transverse locking-bar adapted to engage the depending arm of the rock-shaft, as set forth.

4. The combination of the rails, the vibrating lever pivoted between the same and connected with the brake-beams, the slide mounted between the rails and adapted to actuate said lever, the plate mounted between the rails and adapted to engage the slide and provided with a transverse rib at its front end, the draw-head having a transverse groove engaging said rib, and means for throwing the said plate into engagement with the slide, as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

EDMOND C. GLOVER.

Witnesses:
G. A. J. MAY,
J. D. GLOVER.