

W. L. BELT.
Car-Brakes.

No. 151,076.

Patented May 19, 1874.

Fig. 1.

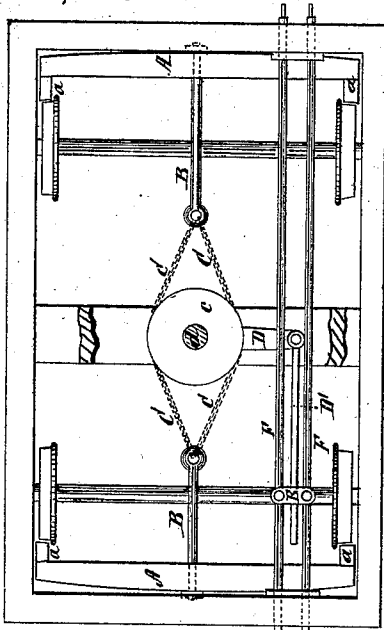


Fig. 3.

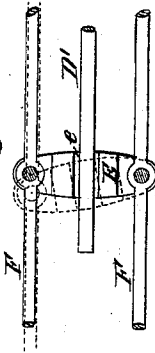
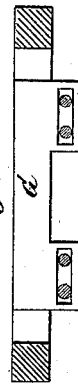


Fig. 2.



WITNESSES.

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WILLIAM L. BELT, OF LITTLE ROCK, ARKANSAS, ASSIGNOR TO HIMSELF
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IMPROVEMENT IN CAR-BRAKES.

Specification forming part of Letters Patent No. 151,076, dated May 19, 1874; application filed
April 18, 1874.

To all whom it may concern:

Be it known that I, WILLIAM L. BELT, of Little Rock, in the county of Pulaski and the State of Arkansas, have invented a new and Improved Railroad-Car Brake; and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing forming a part of this specification, in which—

Figure 1 is a top view, parts being broken out. Figs. 2 and 3 are detail views.

The invention relates to means of operating car-brakes from the engine. These will first be fully described in connection with all that is necessary to a full understanding thereof, and then pointed out in the claim.

A A represent the usual transverse bars provided with brake-shoes *a a*, and connected, by rods B B, as well as chains C C, with the disk *c* of a lever, D. These chains are attached on both sides of the fulcrum-pivot *d*. As long as the lever and brake-bar are parallel the brake-shoes remain away from the periphery of wheels, but as soon as the lever is obliqued, with respect thereto, the shoes are drawn in opposite directions toward the wheels. D' is a bar pivoted to the lever D, and passing through a grapple, E. This has a hole, *e*, sufficiently large to allow a free movement of the grapple thereon as long as the latter is held at right angles thereto by springs or otherwise. When, however, the grapple is obliqued, and then moved, it bites or grips the rod D', and carries it along, thus vibrating the lever D and applying the brakes. This grap-

ple is pivoted at each end to a rod, F, and this rod connected with a rod, F¹, which has a collar, *f*, and passes through a plate, G, on the front of tender. Between the collars *ff* and plates G are placed spiral retracting-springs H, that tend to hold the grapples at right angles to the rods. The rods F are duplicated on the tender because the locomotive is sometimes coupled to one end of it, and sometimes to the other. F² is a rod on engine, connecting one of the rods F¹ with chains I, made fast to a rotary shaft, J. The latter has a sliding friction-wheel that may be brought into contact with a corresponding one on the axle-shaft at the option of the engineer.

When the shaft J is turned, one of the rods F is pulled forward, this movement both obliquing the grapple, and causing it to seize the rod D' and draw it forward. As ordinarily the grapple slides upon the rod D', it makes no difference whether the cars are together, or at what distance they may be separated. The grapple will bite and draw the rod D' equally well wherever it may be.

Having thus described my invention, what I claim is—

The combination, with the vibratory brake-lever D, of the rod D', grapple E *e*, and rods F F, the whole constructed to operate substantially in the manner and for the purpose specified.

WM. L. BELT.

Witnesses:

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