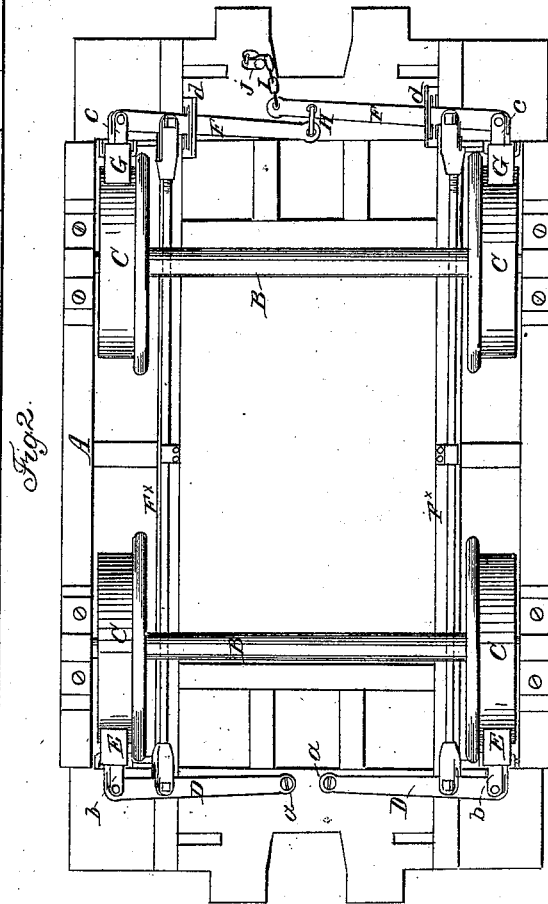
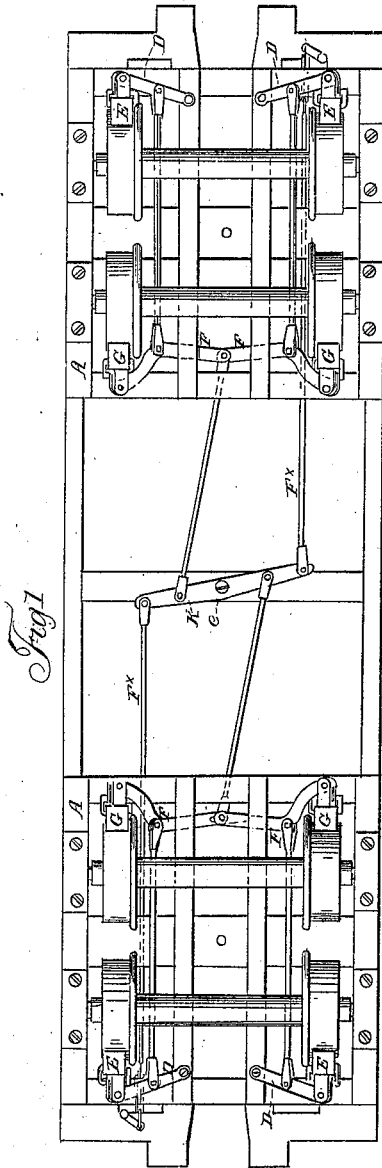


E. R. BROWN.

Car Brake.

No. 52,820.

Patented Feb. 27, 1866.



Witnesses:  
*Theo Fusch*  
*W. Frewin*

Inventor:  
*E. R. Brown*  
*By Munn & Co*  
*Attys*

# UNITED STATES PATENT OFFICE.

E. R. BROWN, OF MAUCH CHUNK, PENNSYLVANIA.

## IMPROVED RAILWAY-BRAKE.

Specification forming part of Letters Patent No. 52,820, dated February 27, 1866.

*To all whom it may concern:*

Be it known that I, E. R. BROWN, of Mauch Chunk, in the county of Carbon and State of Pennsylvania, have invented a new and Improved Railroad-Brake; and I do hereby declare that the following is a full, clear, and exact description of the same, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figures 1 and 2 are plans or top views of car-trucks with my invention applied to them.

This invention has for its object the dispensing with the brake or shoe bar hitherto universally used, and which is attended with considerable annoyance on account of their liability to break, and which not unfrequently is the source of serious accidents.

The invention consists in attaching the shoes directly to levers arranged in such a manner that a brake or shoe bar is rendered entirely unnecessary, and the brake mechanism not only rendered more simple than hitherto, but also less liable to become deranged by use.

A, Fig. 2, represents a car-truck; B B, the axles, provided with wheels C, as usual.

D D represent levers, which are secured by pivots *a* to one end of the truck A, and have arms *b* pivoted to their outer ends, to which arms the usual shoes E are secured.

The levers D D are connected by rods F<sup>x</sup> to similar levers F F, which are at the front end of the truck A, and are provided at their outer ends with pivoted arms *c*, to which shoes G are attached. These levers F F are fitted in guides *d*, secured to the under side of the truck, and the inner ends of said levers are connected by a link, H, the brake-chain I being attached to the inner end of one of the levers F. By

this arrangement it will be seen that when the chain I is drawn taut by winding up the usual brake-shaft J at the end of the truck the shoes of the levers D D F F will be pressed against the wheels, the motion being communicated from the levers F F to the levers D D by the rods F<sup>x</sup>. On releasing the brake-shaft J the shoes will free themselves from the wheels, the levers being so hung or arranged as to admit of that result.

In Fig. 1 the invention is shown applied to a double-truck car, but the principle is not changed. In the latter instance the rods F<sup>x</sup> are divided and attached to the ends of a lever, K, which is secured to the under side of the car-bed by a central pivot, *e*, the outer ends of the rods F<sup>x</sup> being connected one to the end of a lever, D, at the inner end of the truck, and the other to a lever, F, at the opposite end of the truck, as will be fully understood by referring to Fig. 1.

Thus it will be seen that by this simple arrangement I am enabled to dispense entirely with the ordinary brake or shoe bar, and thereby simplify the brake and render it less liable to get out of repair, and avoid accidents which now frequently occur on account of the breaking or casual detachment of the brake or shoe bar.

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

As an improvement in railroad-car brakes, the arrangement of the levers D D and levers F F, in combination with the rods F<sup>x</sup> F<sup>x</sup>, to operate in the manner as herein described.

E. R. BROWN.

Witnesses:

J. W. ENBODY,  
M. J. CORSE.