

(No Model.)

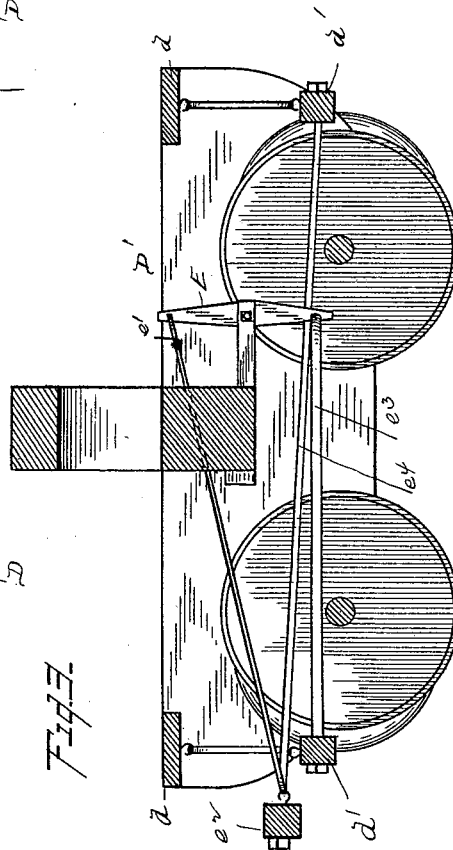
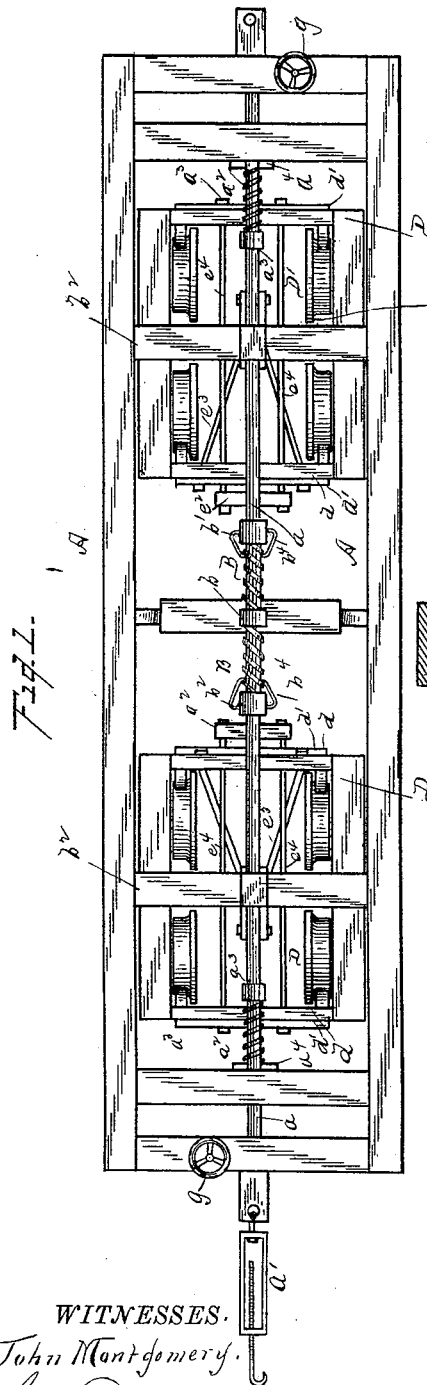
2 Sheets—Sheet 1.

G. G. OLDFIELD.

CAR BRAKE.

No. 386,342.

Patented July 17, 1888.



WITNESSES.
John Montgomery.
Geo. Fox.

INVENTOR.
Gideon G. Oldfield
By *[Signature]*
Attorneys.

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2 Sheets—Sheet 2.

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Fig. 2.

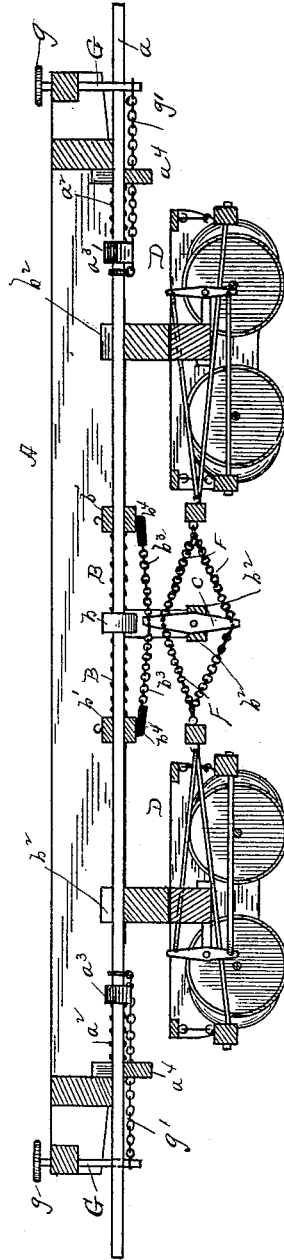
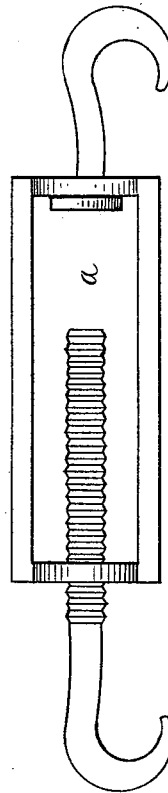


Fig. 4.



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UNITED STATES PATENT OFFICE.

GIDEON G. OLDFIELD, OF FERENBAUGH, NEW YORK.

CAR-BRAKE.

SPECIFICATION forming part of Letters Patent No. 386,342, dated July 17, 1888.

Application filed April 7, 1888. Serial No. 269,975. (No model.)

To all whom it may concern:

Be it known that I, GIDEON G. OLDFIELD, a citizen of the United States of America, residing at Ferenbaugh, in the county of Stenben and State of New York, have invented certain new and useful Improvements in Car-Brakes, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention pertains to certain new and useful improvements in car-brakes, the same being operated by a piston-connection with the engine-boiler, or by hand, as desired.

The object of the invention is the provision 15 of a car-brake comprising but few parts and capable of readily and easily chocking and braking the wheels; and the invention comprises advantages in points of simplicity, durability, and general efficiency, substantially as hereinafter fully set forth, and particularly 20 pointed out in the claims.

In the accompanying drawings, Figure 1 is a plan view of my invention. Fig. 2 is a vertical longitudinal sectional view thereof, and 25 Figs. 3 and 4 are detail views.

Referring to the drawings, A indicates the bottom frame-work of an ordinary car, beneath which is passed a longitudinal rod, *a*, which at each end is provided with an eye or aperture for 30 connection thereto of a screw-swivel, *a'*, whereby connection is established between the longitudinal rods of the cars composing the train. One of the hooks of the swivel is screw-threaded so as to permit of its adjustment at the 35 desired point, according to the width it is desired to maintain between the cars. This rod *a* is encircled by two coil-springs, *a² a²*, which bear at their ends against collars *a³ a³* on the rod *a*, and against apertured plates *a⁴*, depending from a cross-bar of the frame-work A.

40 B B are two coil-springs encircling the bar *a* at its central portion, and bear against a central collar, *b*, at their opposite inner ends, while against their outer ends bear sleeves or 45 thimbles *b' b'*, as shown.

C is a lever fulcrumed between cross-bars *b² b²* of the frame-work A, and to the upper end of this lever are connected the inner ends of 50 chains *b³ b³*, the outer ends of which are connected to U-shaped rods *b⁴ b⁴*, attached to the sleeves or thimbles *b' b'*.

DD are the wheel frames or trucks, to which are secured the axles of the ordinary carrying-wheels, as shown. From cross-bars *d d*, at each end of each frame or truck, are hung the brakes 55 *d' d²*, the outer curved portions of which are, as shown, designed to come in contact with the car-wheels.

E is a lever fulcrumed in a short stud or projection, *e*, attached to a cross-bar of the frame 60 or truck D, and to its upper end is connected one end of a chain or rod, *e'*, attached at its outer end to a cross-head, *e²*, while to the lower end of this lever E is connected the curved portion of a rod or chain, *e³*, the outer ends of 65 which are connected to the brake *d²*.

To the cross-head *e²* are connected the ends of rods or chains *e⁴ e⁴*, which are also connected at their outer ends to the other brake, *d'*. Thus it will be seen by pulling on the cross- 70 head *e²* the same will effect the pulling forward of the upper end of the lever E, causing the brake *d²* to apply to the wheels adjoining the same, and by reason of the rods or chains *e⁴* the brake *d'* will be brought against its 75 wheels.

F F are upper and lower divergent chains, connected, respectively, to the upper and lower ends of the lever C, and at their outer meeting points are connected to the cross- 80 heads *e²*, as shown.

In practice, by pulling in either direction on the rod *a*, the same will, through the agency of the chains *b b*, effect the tilting of the upper end of the lever C, which will effect the pull- 85 ing in opposite directions of the diagonally-opposite chains of the series F F, thus pulling the cross-heads *e² e²* toward each other and applying the brakes to the wheels.

It is obvious that my device can be oper- 90 ated in any desired manner, that which I generally employ having a piston-connection, (not shown,) having a lever-valve for permitting the steam to pass from the boiler thereinto and to cause the movement in the desired di- 95 rection of the brake-rod *a*. I also provide vertical spindles G G, having hand-wheels *g* attached to their upper ends for operating the brakes by hand when necessary, the lower ends of said spindles having connected thereto 100 chains *g' g'* passed around the brake-rod *a* just in rear of the collars *a³ a³*.

The object of the springs on the brake-rod *a* is to prevent the jerking usually experienced in applying the brakes and to provide for the easy and ready application thereof, and also to restore the rod *a* to its normal position when the brakes are released.

The rods or chains *e*¹ *e*² have adjustable connections with their respective parts, so as to compensate for wear of the brakes.

10 I claim as my invention—

1. As an improvement in car-brakes of the class herein described, the brake-rod having the springs encircling the same, the central vertically-disposed lever, the chains connected to the upper and lower ends thereof, and the brakes, to the cross-heads of which said chains are connected, substantially as shown and described.

2. As an improvement in car-brakes, the brake-rod having the central vertically-disposed coil-springs, the sleeves or thimbles, the chains connected thereto, the central lever, and

the brakes having head-bars connected to said lever, substantially as shown and described.

3. As an improvement in car-brakes of the class herein described, the vertical lever *E*, the rods or chains connected to the upper and lower ends thereof, the cross-heads, the brakes, and the brake-rod connected to said cross-heads, substantially as shown and described.

4. The combination, with the brake-rod and the central lever connected to sleeves or thimbles thereof, of the vertical lever, the rods or chains connected thereto, the cross-heads, the brakes, and the series of chains connecting said cross-heads to said central lever, substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

GIDEON G. OLDFIELD.

Witnesses:

GEO. R. BROWN,
JOHN H. WAY.