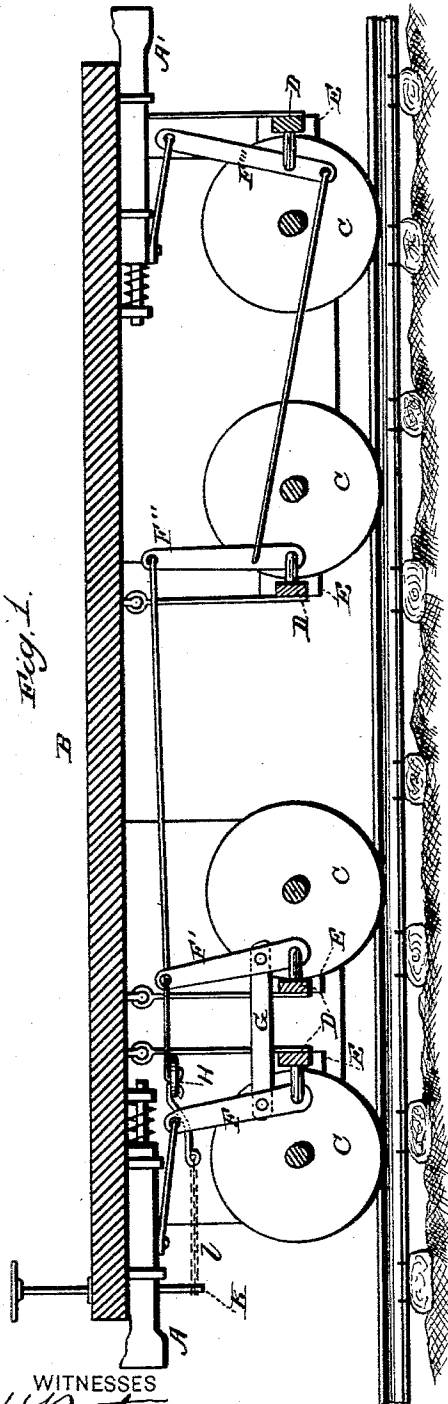


(No Model.)

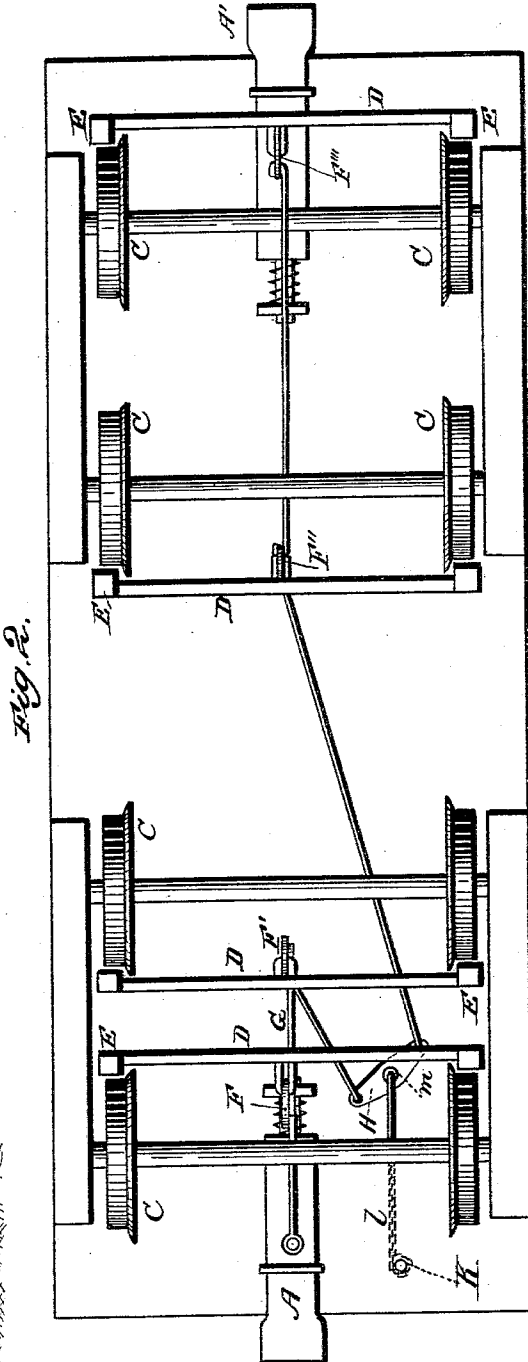
E. FARNSWORTH.
AUTOMATIC CAR BRAKE.

No. 300,585.

Patented June 17, 1884.



WITNESSES
E. H. Bates.
J. J. Shuey.



INVENTOR
Enoch Farnsworth
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UNITED STATES PATENT OFFICE.

ENOCH FARNSWORTH, OF SMITH'S MILLS, PENNSYLVANIA.

AUTOMATIC CAR-BRAKE.

SPECIFICATION forming part of Letters Patent No. 300,585, dated June 17, 1884.

Application filed May 12, 1883. (No model.)

To all whom it may concern:

Be it known that I, ENOCH FARNSWORTH, a citizen of the United States, residing at Smith's Mills, in the county of Clearfield and State of Pennsylvania, have invented certain new and useful Improvements in Car-Brakes; and I do 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 appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a vertical sectional view of my brake, and Fig. 2 is a bottom view of the same.

This invention has relation to automatic car-brakes for railway-cars; and it consists in the construction and novel arrangement of parts, as will be hereinafter fully described, and particularly pointed out in the claim appended.

In the accompanying drawings, the letters A, A' designate the draw-heads or yielding bumpers at the ends of a car-frame, B.

C C indicate the car-wheels, and D D the brake-bars, having the brake-shoes E. To each brake-bar is connected a brake-lever.

In the construction illustrated the bumper A is connected to the first brake-lever, F, which is connected to the second brake-lever, F', by a fulcrum-bar, G, and the upper arm of the second brake-lever is connected to the movable or adjustable lever or regulator-bar H at one end thereof, the other end of the adjustable lever or regulator H being connected to the next brake-lever, F'', and this brake-lever to the next in succession, F'''. All the brake-levers of the car are connected in this manner, the last brake-lever being connected to the bumper A' at the other end of the car.

K indicates the brake-stem or operating device, which is connected to the car-frame at the end thereof. This brake-stem is connected to the regulator-lever H by means of a chain, L.

As the fulcrum-point *m* of the regulator or governor-bar H is not fixed with relation to the car-frame, being at the point of attachment of the chain L, and as this governor-bar

or regulator is in connection with all the brake-levers of the car, its operation affects all of said brake-levers in the following manner: 55 When it is desired to adjust the brakes in position for automatic action, the operating or adjusting stem K is turned sufficiently to bring the brake-shoes toward the wheels, so that they will barely touch or just escape touch- 60 ing the same. This adjustment is made through the governing-lever H when the bumpers are in position at rest. All the brakes of the cars of the train are similarly adjusted, and the action of the brakes will then be automatic 65 and successive. As the engine is slowed down the bumpers of the cars in succession come together, and as they are in connection with the trains of brake-levers, these are put in operation successively, and apply the brakes either 70 sharply or gradually, according to the manner of stopping or slowing down the engine.

In order to throw the brakes off for backing or other purpose, the operating-stem is turned to loose the chain L, so that the brake-bars are 75 allowed by the governor H to fall away from the wheels. Under this adjustment the action of the bumpers will not put the brakes on.

In order to put the brakes on a single car, the brake-stem should be turned down tightly, 80 so that it will, through the governor-bar, operate all the brakes of the car. Should the brake-shoes wear away somewhat under use, the effectiveness of this mode of operating them will not be impaired, as the adjustable 85 nature of the governing device is sufficient to compensate for all the wear liable to occur.

Having described this invention, what I claim, and desire to secure by Letters Patent, is— 90

The combination, with all of the brake-bars, brake-levers, and both sliding bumpers of a car, and an operating-stem near one end of the car, of a governor-lever in connection with all of the brake-levers of the car, and a chain 95 connecting said governor-lever through its fulcrum-point to the operating-stem, substantially as specified.

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

ENOCH FARNSWORTH.

Witnesses:

THEO. MUNGEN,
PHILIP C. MASL.