

(Model.)

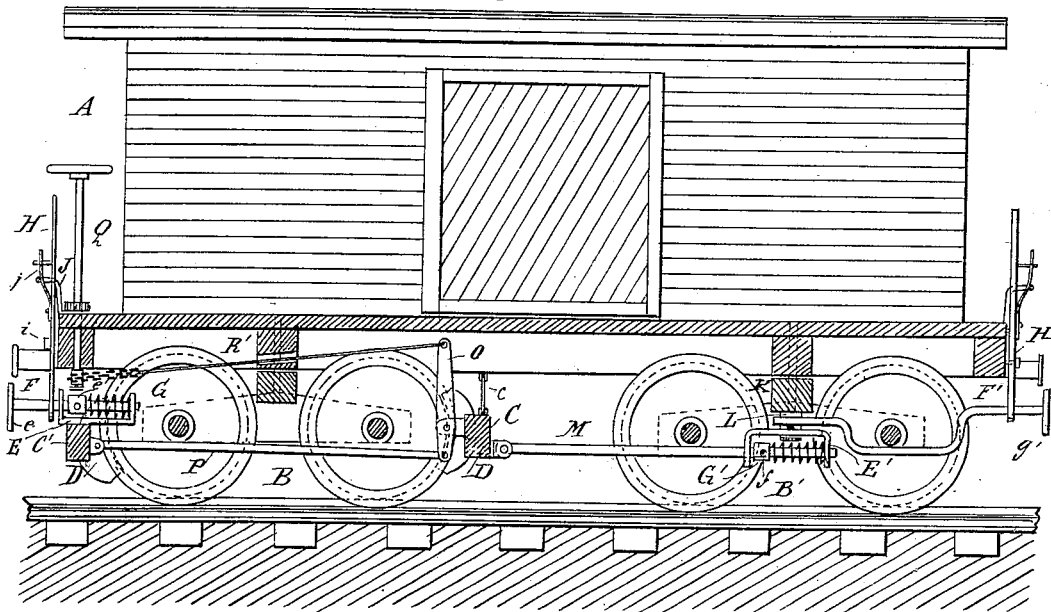
L. D. DAWLEY & A. R. SPAULDING.

CAR BRAKE.

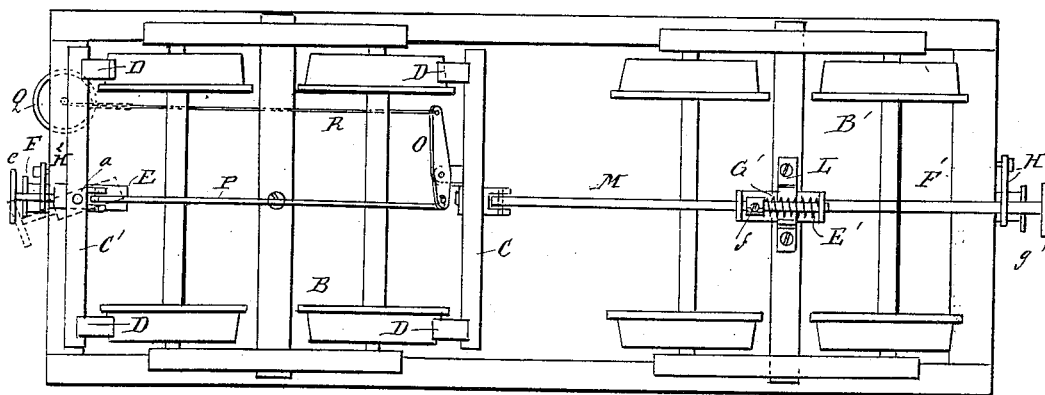
No. 262,378.

Patented Aug. 8, 1882.

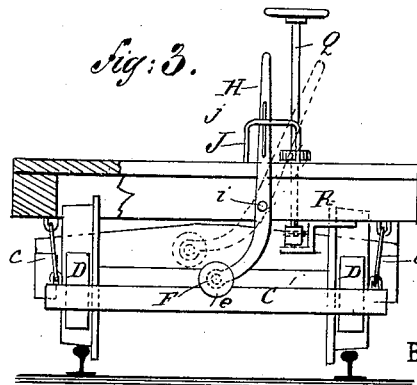
*Fig: 1.*



*Fig: 2.*



*Fig: 3.*



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# UNITED STATES PATENT OFFICE.

LAFAYETTE D. DAWLEY, OF ADA, AND ADDISON R. SPAULDING, OF LAKE CITY, MINNESOTA.

## CAR-BRAKE.

SPECIFICATION forming part of Letters Patent No. 262,378, dated August 8, 1882.

Application filed May 17, 1882. (Model.)

*To all whom it may concern:*

Be it known that we, LAFAYETTE D. DAWLEY, of Ada, in the county of Norman and State of Minnesota, and ADDISON R. SPAULDING, of Lake City, in the county of Wabasha and State of Minnesota, have invented a new and useful Improvement in Car-Brakes, of which the following is a full, clear, and exact description.

10 Our invention relates to improvements in automatic car-brakes; and it consists in the peculiar construction and arrangement of parts, as hereinafter more fully set forth.

Reference is to be had to the accompanying 15 drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional elevation of a railroad-car and trucks having our new and improved 20 momentum-brake applied thereto. Fig. 2 is an inverted plan view of the same; and Fig. 3 is an end elevation, partly in section, showing the means for swinging the buffer out of line with the buffer of the adjacent car.

25 The body A and the trucks B B' of the car may be of any approved construction, and the cross pieces or bars C C', to which the brake-shoes D D are attached, are of ordinary form, and are suspended in the ordinary manner 30 from the bottom of the car or from the frame of the truck by means of the chains, rods, or links c c. Upon the cross-piece C', in the center thereof, is pivoted the angle-plate or housing E, which carries the buffer-rod F and coiled 35 or other spring G, placed upon the rod F. The outer end of this rod F is enlarged to form the buffer plate or head e, and is provided within the housing E with the adjustable collar e', for adjusting the tension of the spring G, and the 40 rod is held loosely in the said housing or plate, so that it is adapted to have longitudinal movement therein against the action of the spring.

45 H is a lever attached at one end to the buffer-rod F, and is pivoted to the end or platform of the car, as shown at i, for swinging the buffer-rod and housing-plate upon the pivot a (shown in Fig. 2) out of line with the center

of the car, as shown in dotted lines in Figs. 2 and 3. For holding lever, buffer, rod, and housing 50 at any desired position the bent ratchet-bar J is provided, with the teeth of which the spring plate or pawl j engages, as will be understood from Fig. 3. Leading from the cross-bar C is the connecting-rod M. 55

To the center piece, K, of the truck B' is attached the hanger L, in which the angle-plate or housing E' is held so as to be adapted to have longitudinal movement. This plate or housing is precisely similar in construction to 60 the plate E. It holds loosely the outer end of the connecting-rod M and the coiled or other spring G' placed upon the rod the same as the housing E holds the buffer-rod F, except that the plate E' is riveted and is adapted to move 65 upon the rod M against the tension of the spring G', whereas the plate E is held rigid against all longitudinal movement. The tension of the spring G' is adjustable by means of the collar f, placed upon the rod. 70

Pivoted to the housing E' is the bent buffer-rod F', the outer end of which is enlarged to form the buffer plate or head g', and is held by the pivoted lever H', which latter is in all respects like the lever H, and serves a like purpose of throwing the buffer-rod F' out of line 75 with the center of the car, so that it will not come against the buffer of the adjacent car, in which position the brakes will have no automatic action. 80

To the cross piece or bar C is pivoted the ordinary brake-lever O, which is connected with the cross-piece C' by means of the connecting-rod P, and with the hand-wheel Q by means of the rod, chain, or similar connection R, for 85 applying the brakes in the ordinary manner when the automatic or momentum mechanism for applying the brakes is out of action or when not sufficient to control the train.

When the automatic or momentum mechanism 90 for applying the brakes is arranged for operation, which is done by bringing the buffers by means of the lever H or H' in line with the center of the car, so that the heads of the buffers throughout the train will come together 95 when the speed of the train is retarded by

slackening the speed of the engine, the buffer-rods will crowd against each other and be forced forward and rearward against the springs G G' by the pressure of the buffer-rods against each other, due to the momentum of the cars, and thus will force the cross piece or bars C and C' toward the wheels of the truck and automatically apply the brakes.

When the buffers are thrown out of line by operating the lever H or H' it will be understood that the cars may be drawn in any direction without operating the brakes, and it will be understood that the buffer-rods must be a little longer than the draw-heads and ordinary buffers of the cars, so that they will have sufficient backward and forward movement for applying the brakes, and instead of using the adjustable springs on the buffer-rods other mechanism—such as levers, cranks, eccentric—may be used and not depart from the spirit of our invention.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The combination, with the cross-pieces C

C', of the buffer-rods F F' and plates or housings E E' with the springs G G', substantially as described.

2. The combination of the cross-pieces C C' of the buffer-rods F F', the plates or housing E E', the springs G G', and the levers H H' for throwing the buffer-rod out of line, substantially as shown and described.

3. The combination, with the lever H, pivoted to the end of the car, and the cross-bar C', of the plate-housing E, pivoted to the bar C', the buffer-rod F, provided with the head e, the spring G, and the adjusting-collar e', substantially as and for the purpose set forth.

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