

T. B. COMINS, Jr.

Car Brake.

No. 68,701.

Patented Sept. 10, 1867.

Fig: 1.

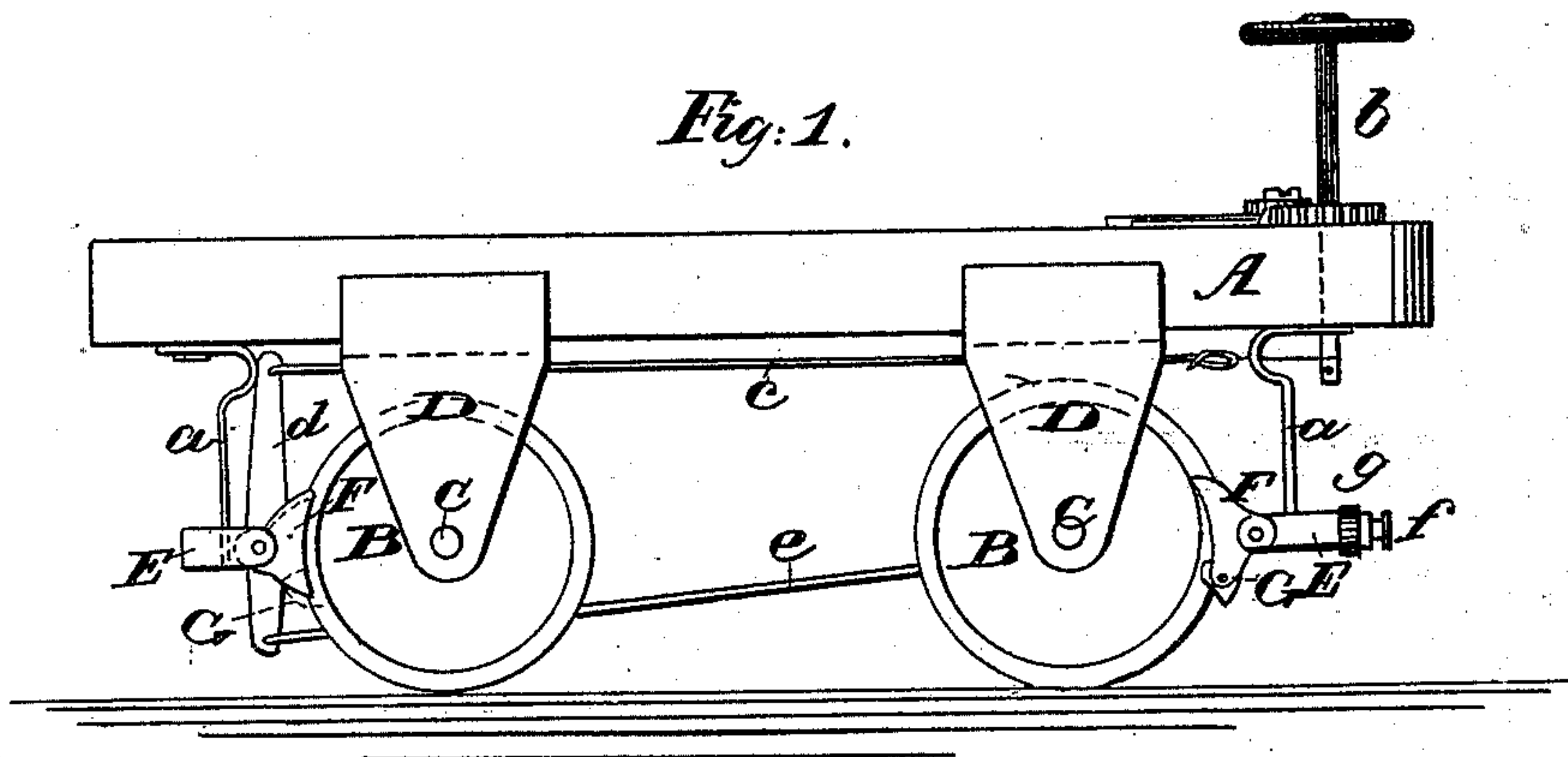
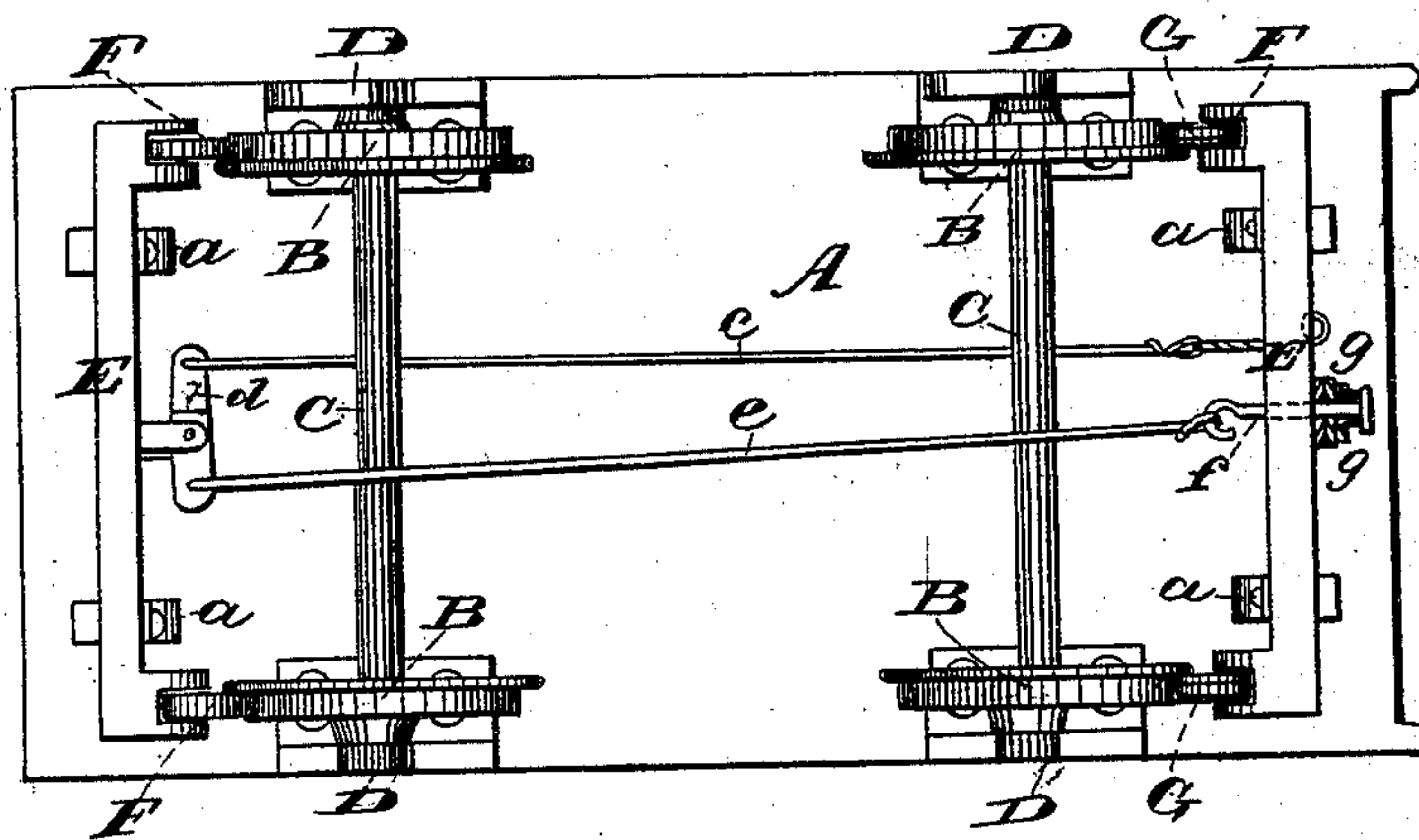


Fig: 2.



Witnesses:
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United States Patent Office.

THOMAS B. COMINS, JR., OF LOWELL, MASSACHUSETTS.

Letters Patent No. 68,701, dated September 10, 1867.

IMPROVED CAR-BRAKE.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN :

Be it known that I, THOMAS B. COMINS, Jr., of Lowell, Middlesex county, Massachusetts, have invented a new and improved Car-Brake; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 represents a side elevation of a car, to which my improved brake is applied.

Figure 2 is a bottom view of the same.

Similar letters of reference indicate corresponding parts.

This invention relates to an improved car-brake, which is so arranged as to bear with more than usual power upon a point on the periphery of the wheel, while the pressure is still increased by the application of a spring, which, although it serves to increase the pressure of the brake, still prevents the same from being dull, and makes the whole elastic, and more durable and effective than the brakes now in general use.

A represents the platform of a railroad car, and B B are the wheels, which are secured to their axles C C, that hang in boxes D D, as shown, and all of which parts are arranged in the usual manner. E represents the shoe-bars, which are suspended from springs *a a*, and operated by a vertical rod, *b*, which is connected with a horizontal bar *c*, that is attached at one end to a lever, *d*, as shown. The latter is pivoted to one shoe-bar, and to its lower end is attached another horizontal bar, *e*, which connects with a bolt, *f*, and passes through the opposite shoe-bar, as shown. Between the outer head of the bolt *f* and the shoe-bar through which it passes, is arranged a spiral or other spring, *g*, which has a tendency to throw the shoe against the wheel, and which, when the shoes are drawn against the wheels, by revolving the rod *b*, increases the pressure of the same against the periphery of the wheel, but also prevents sudden shocks, and insures the elasticity of the apparatus. The spring further prevents the wheels from sliding on the rail without turning, as when so much power is applied that the dead weight of the car is pulled, the spring will give enough to let the wheels revolve. F are the shoes hinged to the ends of the shoe-bars, as shown. The upper part of each shoe, when the brake is applied, bears against the wheel, and in the lower part of each shoe an eccentric, G, is pivoted, which also bears against the wheel. The wheel acts upon the eccentric, and turning it, (as shown in red lines on the left-hand side of fig. 1,) throws off the lower end of the shoe and causes the upper end of the same to bear or press with increased power against the wheel, thereby making a much more effective brake than the old ones are, which bear with whole surface against the wheel. When released from the wheel the eccentric hangs down, as shown on the right-hand side of fig. 1. As the wheel turns the eccentric the upper end of the shoe is forced against the wheel, and the brake is thus partly self-acting, not requiring any more turning of the rod *b* after the eccentric once comes in contact with the wheel.

I claim as new, and desire to secure by Letters Patent—

1. The eccentric G, when secured to the ends of the shoes F, substantially as herein shown and described.
2. The construction and arrangement of the vertical springs *a* supporting the shoe-bar E, horizontal bar *c*, lever *d*, and spring *g*, between the outer head of the bolt *f* and shoe-bar E, as herein set forth for the purpose specified.

THOMAS B. COMINS, JR.

Witnesses:

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