

T. B. COMINS, Jr.

Car Brake.

No. 68,700.

Patented Sept. 10, 1867.

Fig. 1.

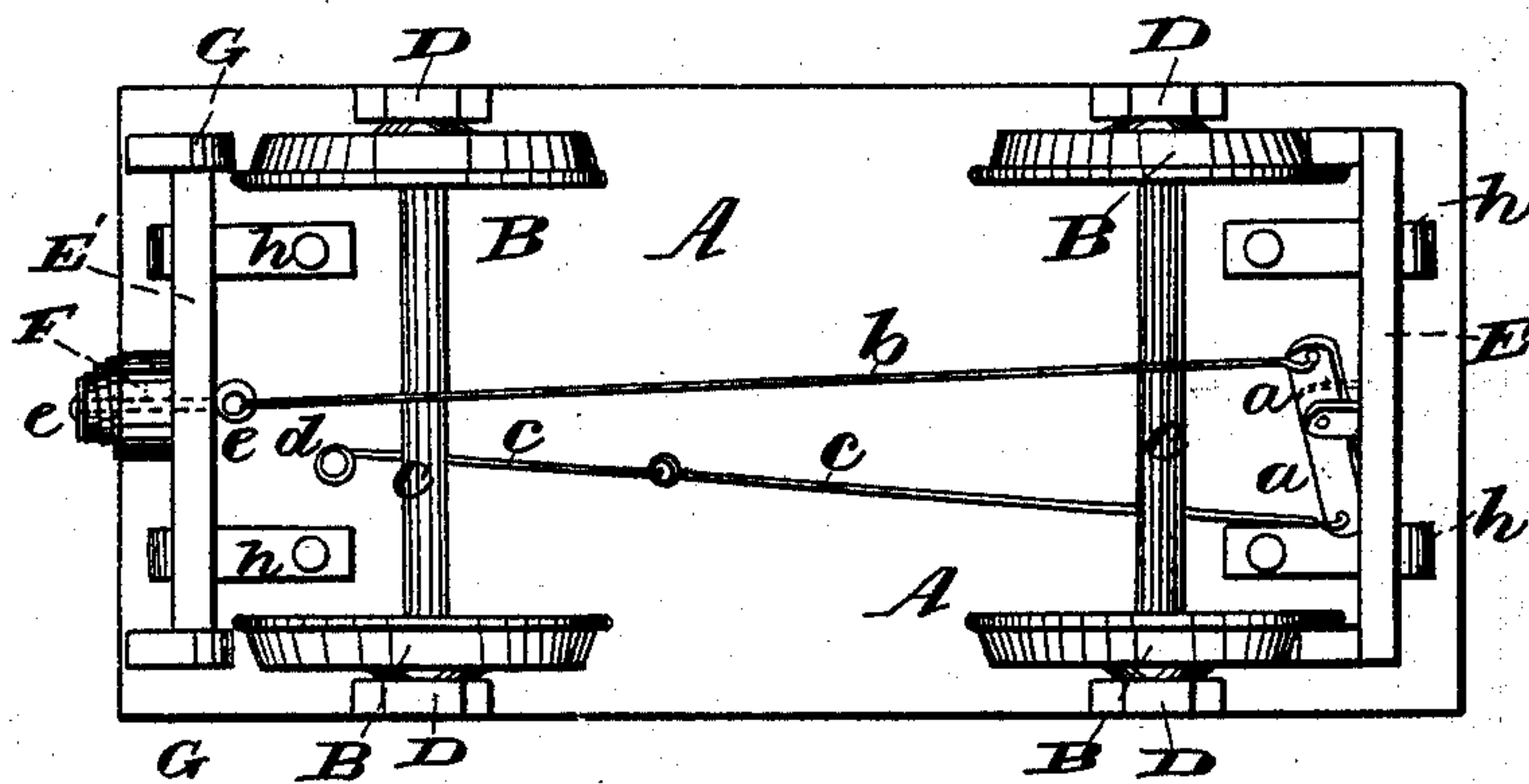


Fig. 3.

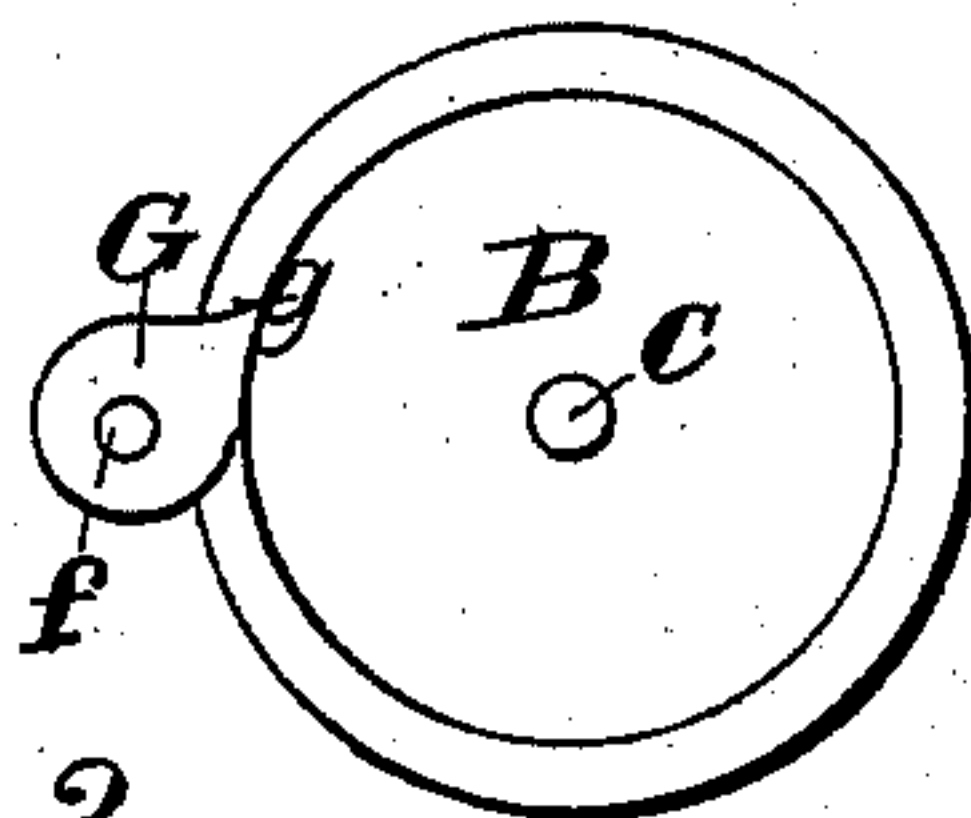
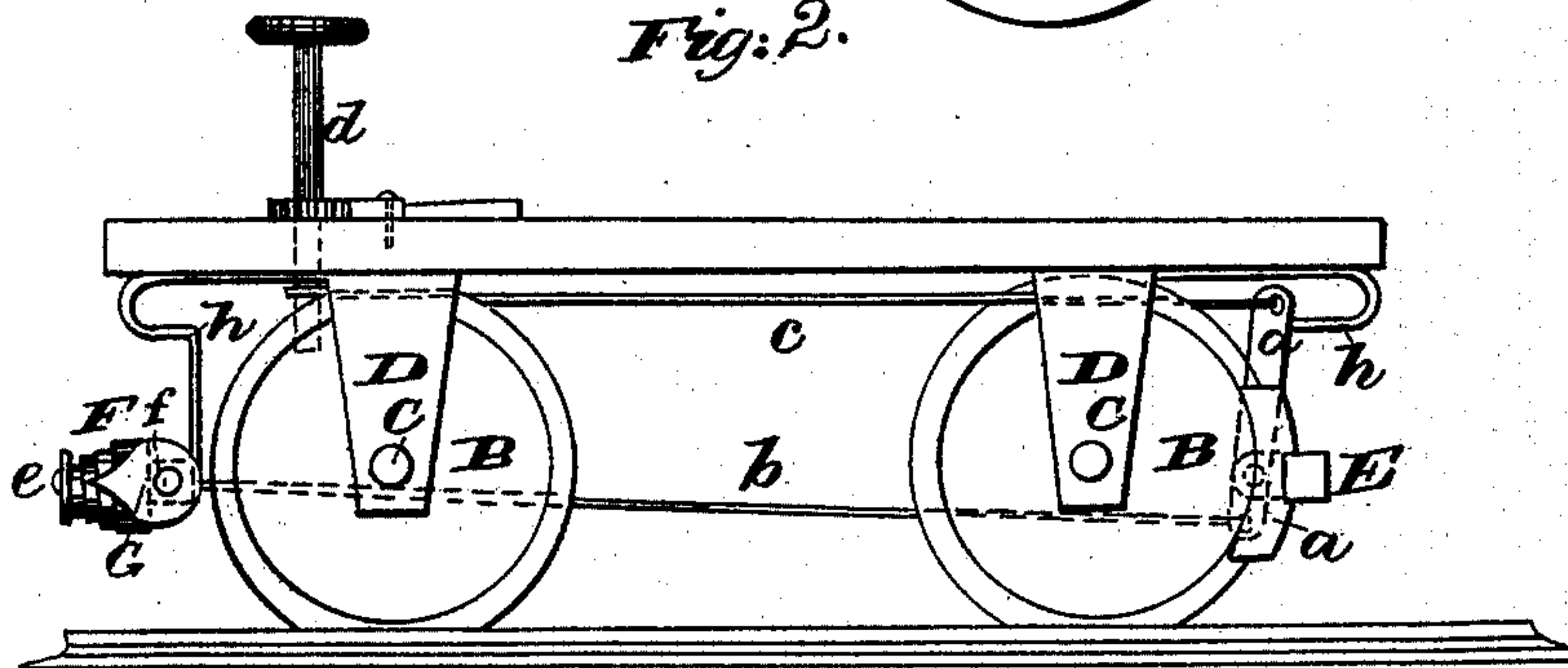


Fig. 2.



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

Letters Patent No. 68,700, 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 Railroad-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 an inverted plan view of my invention.

Figure 2 is a side elevation of the same.

Figure 3 is a detail side view of one wheel and operating-cam.

Similar letters of reference indicate corresponding parts.

This invention relates to certain improvements on the railroad-car brake for which I made application for Letters Patent on or about the 20th day of February, 1867.

The improvements consist in attaching the cam directly to the end of the shoe-bar, and not to the lower end of the shoe, as described in my aforesaid application. The shoe is done away with, and the cam only applied as a brake, which it has been found operates better than the shoe alone, and as good as the shoe and cam combined. The eccentric is weighted so as to swing clear of the wheel when not applied.

A is the car platform. B B are the wheels, which are mounted on axles C, which have their bearings in boxes D, in the ordinary manner. E E are the shoe-bars, which are suspended from springs, *h h* and on one of which a vertical (or nearly so) lever, *a*, is secured, to the lower end of which a rod, *b*, is secured, by which the two shoe-bars are connected, while to the upper end of the lever *a* the end of a chain or cord, *c*, is attached, which is wound around a revolving upright shaft, *d*, as is clearly shown in the drawings, and as fully described in my aforesaid application. The free end of the rod *b* connects with a bolt, *e*, which passes through the shoe-bar E', between which and the head of the bolt a spring, F, is arranged, as shown, and as also described in the aforesaid application. To the ends of the one or of both the shoe-bars are pivoted, by means of pins *f f*, eccentric cams G G, which are weighted so as to swing clear of the wheels whenever the chain *c* is slackened, as shown in fig. 2. But when the brake is to be applied the cams are pressed against the periphery of the wheel, and then, as the wheel turns, the cam is carried around until a stop, *g*, prevents it from being turned any further (see fig. 3.) That portion of the cam which is most distant from the pivot *f* is then applied to the wheel. By this arrangement the brake is gradually applied to the wheels, and not as suddenly as usual. The cams G are made symmetrical, so that they will work with equal effect when the car moves in either direction. The regulating-spring F can be attached to a stationary projection from the car platform or frame, and will operate as well as long as it is connected with the brake-rod *b* in the manner shown. These eccentric cams can be applied to one or more wheels of one car.

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

1. The eccentrics G, attached to the ends of the shoe-bars, substantially in the manner and for the purpose herein shown and described, the said eccentrics being free to turn on their pivots, and weighted, substantially as and for the purpose herein shown and described.

2. The spring F, in combination with the shoe-bars E E' and eccentrics G, all made and operating substantially as and for the purpose herein shown and described.

THOS. B. COMINS, JR.

Witnesses:

WM. F. McNAMARA,

ALEX. F. ROBERTS.