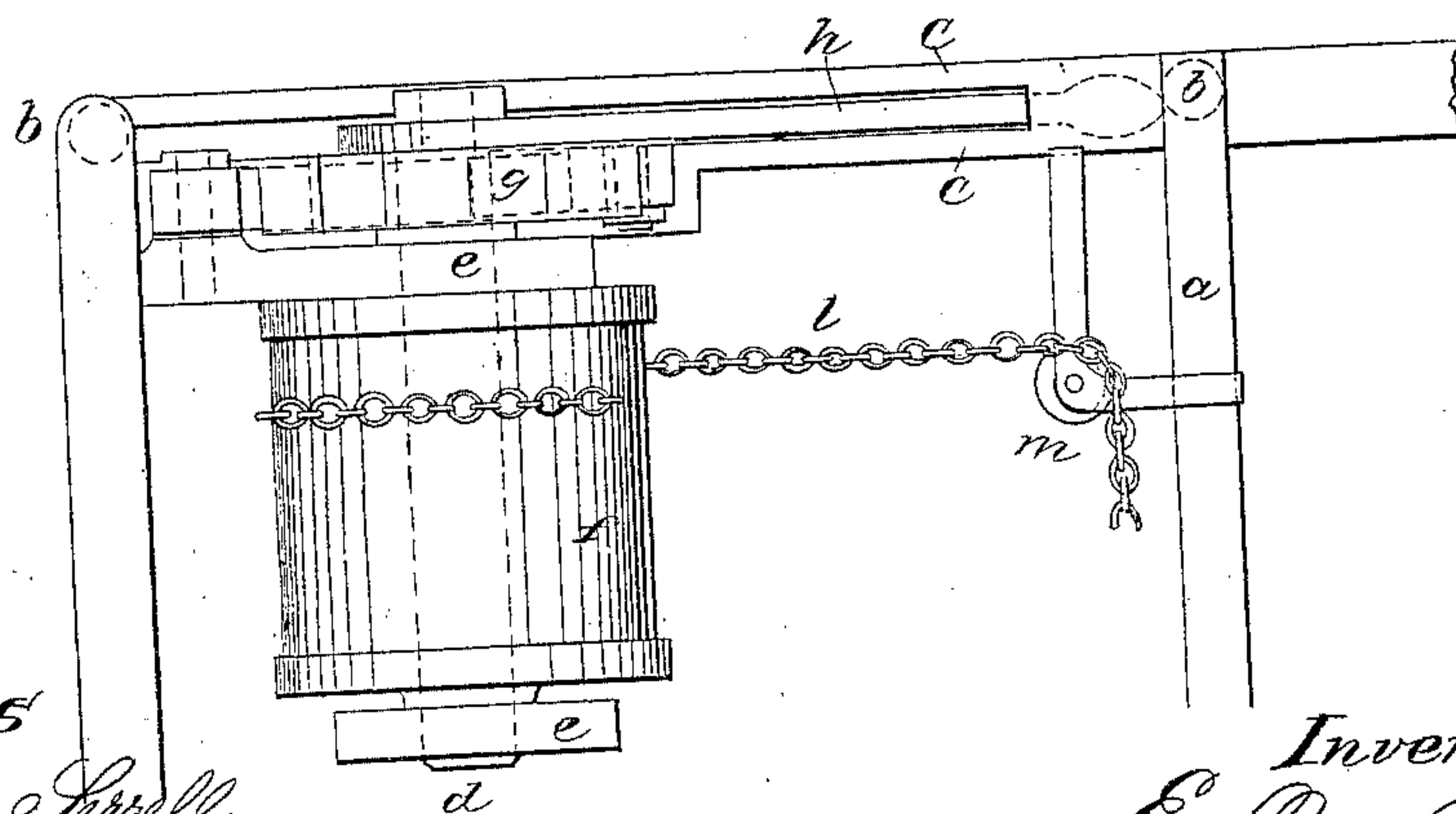
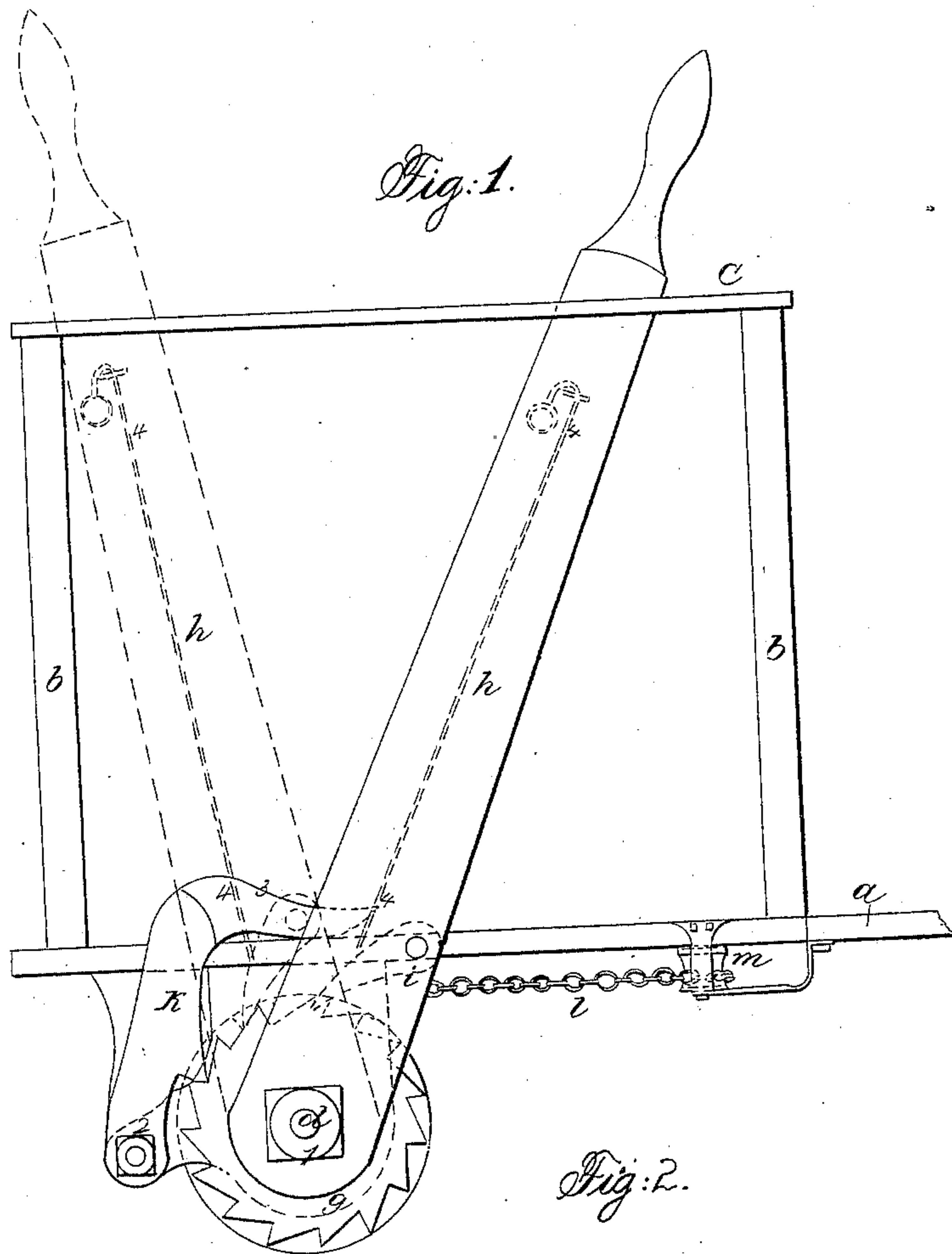


E. M. JUDD.

Car Brake.

No. 37,098.

Patented Dec. 9, 1862.



Witnesses
Lemuel W. Scrull
Chas. H. Smith

Inventor
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UNITED STATES PATENT OFFICE.

EDWARD M. JUDD, OF NEW BRITAIN, CONNECTICUT.

IMPROVEMENT IN RAILROAD-CAR BRAKES.

Specification forming part of Letters Patent No. 37,098, dated December 9, 1862.

To all whom it may concern:

Be it known that I, EDWARD M. JUDD, of New Britain, in the county of Hartford and State of Connecticut, have invented, made, and applied to use a certain new and useful Improvement in Brakes for Railroad-Cars; and I do hereby declare the following to be a full, clear, and exact description of my said invention, reference being had to the annexed drawings, making part of this specification, wherein—

Figure 1 is an elevation of my said brake as attached at the end of a platform, and Fig. 2 is an inverted plan of my said brake.

Similar marks of reference denote the same parts.

The brakes ordinarily in use are of such a nature that the brakeman cannot apply his strength in an advantageous manner. The turning of the brake-wheels in commencing to "brake up" is comparatively easy, but at the latter part is exceedingly hard, and the brakeman often cannot exert the power required to stop the cars quick enough.

The nature of my invention consists in a barrel actuated by a lever and pawl, by means of which the chain to the brake-levers can be drawn in by said barrel, and the leverage obtained is such that the brakes can be applied to the wheels with more or less power, as required, and the brakeman can apply his strength to great advantage in moving the lever by which the barrel is rotated. Besides this, the horizontal wheels, which now occupy so much room on the platforms, are dispensed with.

In the drawings, *a* represents a portion of the platform of a car of any usual character. *b b* are the vertical metal bars at the ends of the platform, and *c* is the top rail, which, for my purpose, is to be made double or formed

with a slot lengthwise through the center thereof, as seen in Fig. 2.

d is a shaft sustained in bearings *e e* from the under side of the platform, and on this shaft *d* is a barrel, *f*, firmly attached to or formed with said shaft. *g* is a ratchet-wheel on the outer part of this shaft *d*, (also firmly attached,) and *h* is a lever having the said shaft *d* as its fulcrum, and held in place by the nut *1*. *i* is a pawl on said lever taking the teeth of the ratchet-wheel *g*, and *k* is a stop-pawl on a center, *2*, and provided with an arm, *3*, by which it can be thrown out from the teeth of *g*, when required. *l* is a chain leading to the brake-levers, as usual; but said chain passes around the roller *m*, and one end is attached to the drum *f*. It will now be evident that the brake-chain can be drawn in so as not to hang slack, and that by moving the lever *h* from the position shown in Fig. 1 to that represented by dotted lines the brakes will be applied to the car-wheels with great power; or, if necessary to take up the slack chain, the lever *h* may be moved back and forth several times. When the pawl *i* is to be disconnected, it may be done by a chain, rod, or cord, as shown by dotted lines at *4*, Fig. 1. The upper part of the lever *h* is guided by passing through the slot in *c* aforesaid.

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

The barrel *f* and ratchet-wheel *g*, in combination with the lever *h* and pawls *i k*, substantially as and for the purposes specified.

In witness whereof I have hereunto set my signature this 6th day of November, 1862.

E. M. JUDD.

Witnesses:

LEMUEL W. SERRELL,
CHAS. H. SMITH.