

(No Model.)

C. BULLOCK.

SAFETY BRAKE FOR CABLE CARS.

No. 395,736.

Patented Jan. 8, 1889.

Fig. 3.

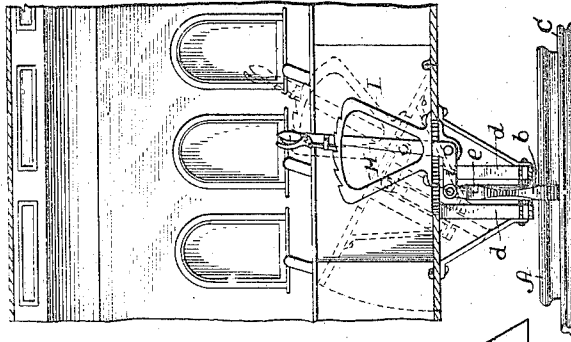


Fig. 2.

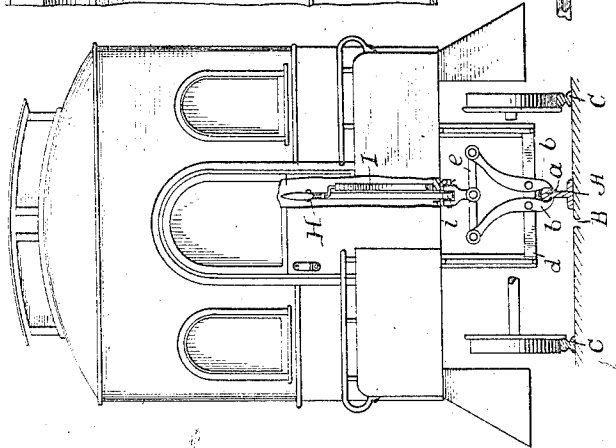
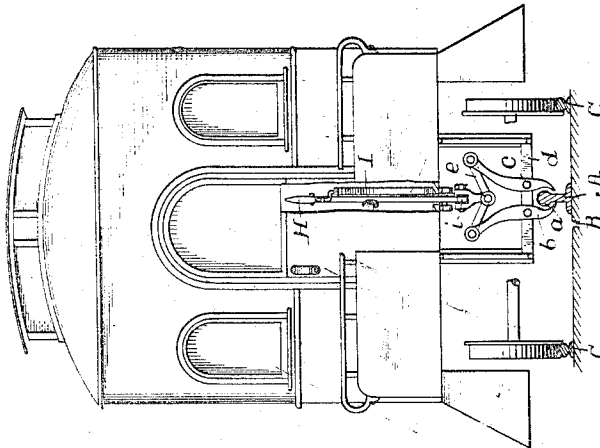


Fig. 1.



Witnesses

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SAFETY-BRAKE FOR CABLE CARS.

SPECIFICATION forming part of Letters Patent No. 395,733, dated January 8, 1889.

Application filed February 24, 1888. Serial No. 265,128. (No model.)

To all whom it may concern:

Be it known that I, CHESTER BULLOCK, of Kansas City, Wyandotte county, Kansas, have invented a new and useful Improvement in Safety-Brakes for Cable Cars, of which the following is a fully clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to brakes provided with gripping-jaws which engage a gripping-rail; and it may be said to consist in the devices and the peculiar combination, construction, and arrangement of devices hereinafter set forth, and pointed out in the claims.

The object of my invention is to secure safety for cable cars while ascending and descending inclined planes.

In the drawings, Figure 1 is a broken sectional elevation of a cable car having my invention applied thereto, the car shown supposed to be descending an incline upon a double-track cable road. Fig. 2 is a similar view, except that the car shown is supposed to be ascending an incline upon a double-track road; and Fig. 3 is a broken side elevation of a portion of a car having the brake applied thereto.

In this invention there is a special gripping-rail, A, placed near the slot B between the ordinary rails, C, and running parallel therewith the entire distance of the incline, or as far as is necessary for the safety of the car. This rail may be of any ordinary construction; but I prefer to provide it with a round head or gripping-surface, *a*. A pair of oppositely-located gripping-levers, *b*, are pivoted at *c* to a suitable supporting-frame, *d*, suspended from the framing of the car at suitable height. The lower or outer ends of gripping-jaws *b* are to be forcibly brought into contact with the head *a* of rail A by means of a toggle, *e*, which connects their upper ends.

A suitable operating-lever, H, which is L-shaped in form and provided with a suitable notched bar, I, for holding it in any desired adjustment, has its bent end *i* connected to the toggle, so that when said lever is drawn back said toggle will be straightened out and the outer ends of the gripping-jaws will be forcibly brought into contact with the grip-

ping-rail, as clearly indicated in the several figures.

It is evident that this brake may be used whenever desired; but as it is more particularly designed as an emergency device it is evident that it need be used only on such occasions as when the grip or cable breaks, which accidents quite frequently occur. By a suitable arrangement the frame *d*, in which the gripping devices are suspended, can be raised to pass over objects that may be on the track when on level portions of the road, and again lowered to grip the gripping-rail when an incline is reached.

If so desired and preferred, the gripping-rail A may be arranged on the outside of the track and raised to a sufficient height to be engaged by the gripping-jaws, which in such case would project from the side or sides of the car or the platform thereof, the construction being substantially the same as here shown.

It is evident that numerous slight changes in details, such as would suggest themselves to a skilled mechanic or a person of ordinary intelligence, could be resorted to without departing from the spirit and scope of my invention; hence I wish it understood that I do not confine myself to the precise construction, herein shown, but consider myself entitled to all such variations as come within the scope of my invention.

In Fig. 3 I have indicated by dotted lines the supporting-frame hinged at one end to the car-framing, so that it may be raised and tilted upward so as to raise the gripping-jaws, for the purpose before described.

Having thus described my invention, what I claim is—

1. In a safety-brake for cable railways, a pair of oppositely-located gripping-jaws secured together at their upper ends by a toggle-joint and operated by means of an L-shaped lever, in combination with a notched bar for holding said lever at any desired adjustment, substantially as described.

2. The combination, in a safety-brake for cable cars, of a pair of oppositely-located gripping-jaws connected at their free ends by means of a toggle-joint, an L-shaped lever

which is attached to said toggle and by which said joint is operated, and a notched bar secured to the car and adapted to hold said lever at any desired adjustment, substantially
5 as described.

3. In a safety-brake for cable cars, the combination of a pair of gripping-jaws, a stationary rail having a rounded head, a toggle connecting said jaws at their upper free ends, an
10 L-shaped lever by means of which said jaws are operated, a link connecting said lever to

the toggle-joint, and a notched bar for holding the lever at any desired adjustment, all arranged and adapted to operate substantially
as described.

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

CHESTER BULLOCK.

Witnesses:

S. S. MOREHOUSE,
J. C. HIGDON.