G. HILLER.

Railway-Car Brake.

No. 161,789. Patented April 6, 1875.

Fig: 1.

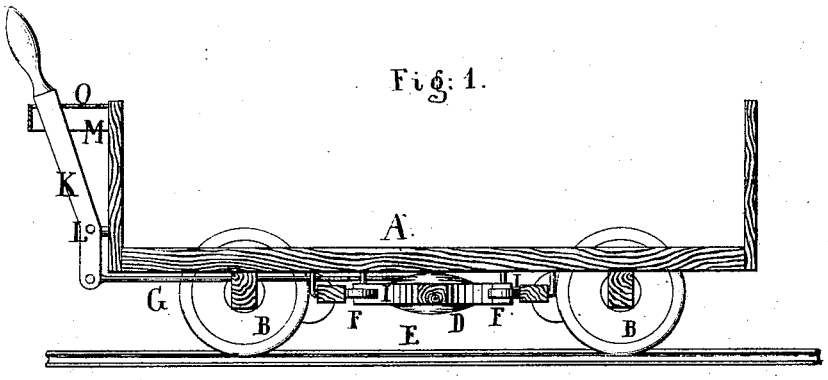
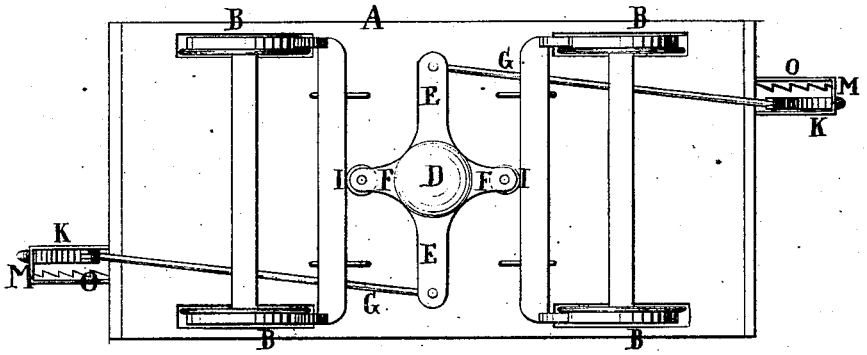


Fig: 2.



Witnesses:

Chas. Wahlers.

Henry Gintner.

Inventor:

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UNITED STATES PATENT OFFICE.

GOTTLOB HILLER, OF NEW YORK, N. Y.

IMPROVEMENT IN RAILWAY-CAR BRAKES.

Specification forming part of Letters Patent No. **161,789**, dated April 6, 1875; application filed September 11, 1874.

To all whom it may concern:

Be it known that I, GOTTLOB HILLER, of the city, county, and State of New York, have invented a certain new and useful Improvement in Car-Brakes, of which the following is a specification:

This invention consists in a cam-lever having arms which connect respectively with the brake rods or chains and with the brake-heads in such a manner (the brake-head arms being provided with friction-rollers) that when the rods or chains are tightened from either end of the car the said cam-lever is oscillated and the brake is put on, as hereinafter more fully described.

The braking arm or arms of the cam-lever are provided with anti-friction rollers, by means of which the action of the brake is rendered exceedingly easy. The brake-rods extend to each end of the car, and are connected to levers, by means of which they are tightened, and with the levers are combined detents in such a manner that the levers can be held or retained in any desirable position.

This invention is illustrated in the accompanying drawing, in which Figure 1 represents a longitudinal vertical section. Fig. 2 is an inverted plan view.

Similar letters indicate corresponding parts.

In the drawing, the letter A designates the platform of a railroad-car, and B are the wheels. To the under side of the platform is pivoted the cam-lever D, consisting of four arms, E E F F, which are at right angles to each other. The arms E E constitute connecting-arms, by means of which the brake rods or chains G are connected with the cam-lever and the arms F F, braking-arms—or, more properly, the cams of the cam-lever—acting directly on the brake bars or heads. The outer ends of the arms last named are provided with anti-friction rollers I, which, when the brake is put on, move on the surface of the brake-heads and materially ease the working of the brake.

When the brake is on the several arms of the cam-lever are in the position shown in Fig. 2, being held against the brake-heads by the retentive force of the brake-rods G, which are in turn held by levers K K, hereinafter described.

Instead of making the cam-lever D of four arms, I can use three or two—that is to say, two connecting-arms and one braking-arm, or vice versa, or one of each—with a like result.

K K are levers, by means of which the brake rods or chains are tightened in the act of putting on the brake.

When these levers, or either of them, are pushed in one direction the brake-rods are tightened and the brake is put on, while when they are pushed in the other direction the rods are let loose and the brake is off.

The levers K K are pivoted at L and work in guides M, which are provided with detents or ratchets O, so disposed that the lever can be made to engage therewith, and is thereby firmly held in position.

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

1. The cam D, having arms E E for connecting with the brake rods or chains, and arms F F, having friction-rollers for operating the brake-heads, all combined for operation from either end of the car, substantially as and for the purpose specified.

2. The combination, with the arms E E and with the brake-heads, of anti-friction rollers I, substantially as specified.

3. The levers K K and detent O, in combination with the brake-rods G and the cam lever D, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 5th day of September, 1874.

GOTTLOB HILLER. [L. S.]

Witnesses:

W. HAUFF,

CHAS. WAHLERS.