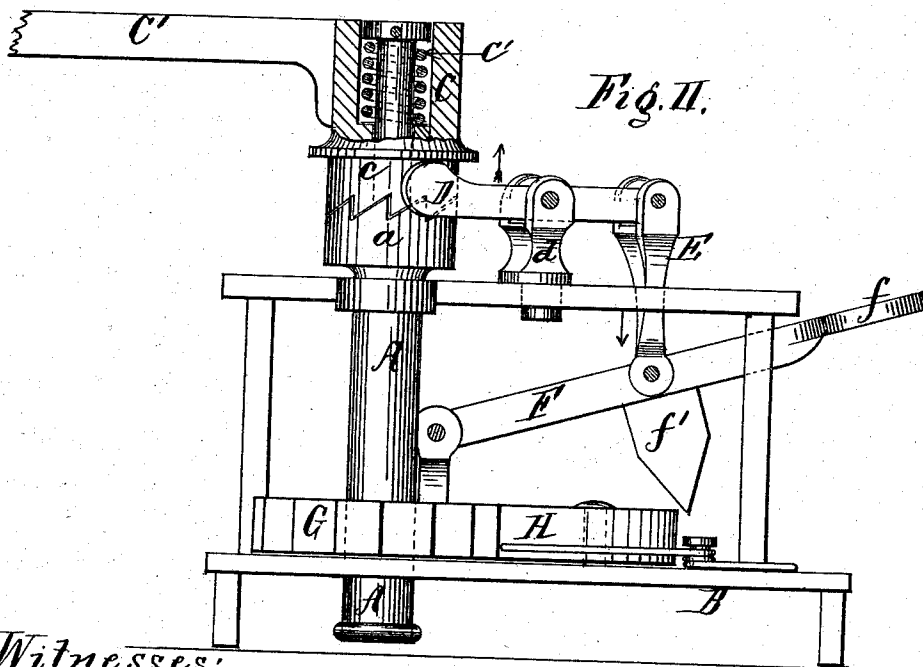
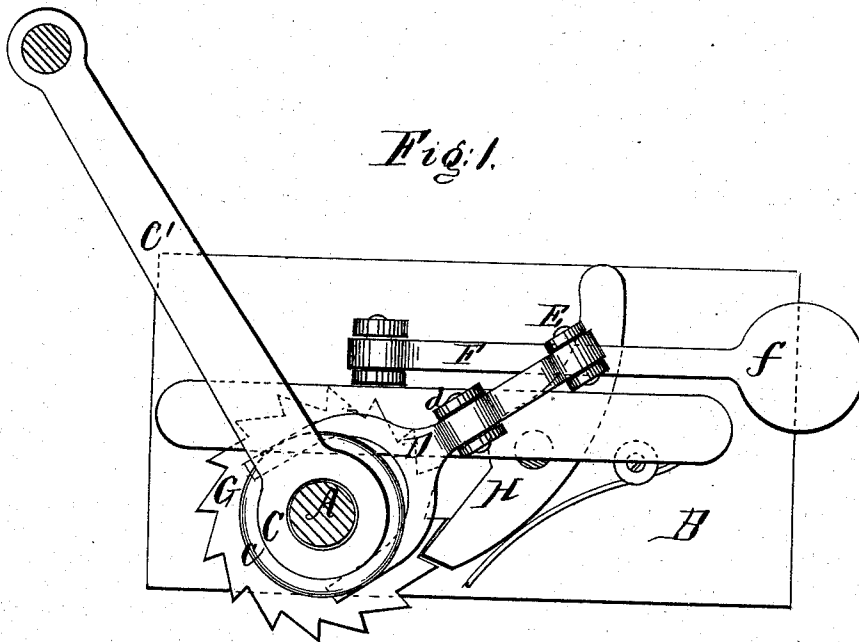


J. SADLER.
Car-Brakes.

No. 157,697.

Patented Dec. 15, 1874.



Witnesses:
Franklin Barritt,
Richard Germer.

Inventor:
Jonah Sadler.
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Atty.

UNITED STATES PATENT OFFICE.

JONAH SADLER, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF HIS RIGHT
TO THOMAS P. STEPHENSON, OF SAME PLACE.

IMPROVEMENT IN CAR-BRAKES.

Specification forming part of Letters Patent No. **157,697**, dated December 15, 1874; application filed
September 14, 1874.

To all whom it may concern:

Be it known that I, JONAH SADLER, of the city, county, and State of New York, have invented a new and useful Device for Operating Car-Brakes; and I hereby declare the following to be a full and clear description thereof, which will enable others to use my improved brake-connections.

This invention consists in the application of a crank, having a sliding ratcheted sleeve, to the brake-rod, so arranged as to automatically engage the brake-rod when the crank is operated in the direction required to apply the brake, and a clutch, operated by a lever and treadle, is used to disengage the aforesaid ratcheted crank from the brake-rod when the brake is to be released.

The invention will be readily understood by reference to the accompanying drawings, of which—

Figure I is a plan of a car-platform provided with the improved brake device. Fig. II is a front elevation of the same.

The brake-rod A is connected with the car-platform B in the usual manner, and the lower end of the said rod is to have the brake-chain wound upon it for tightening the brakes, as in the ordinary method of tightening brake-chains. Near the top end of the brake-rod A, and concentric with it, is a ratchet, *a*, and on the said rod, higher up, is an annular sleeve, C, fitted to slide up and down on the said brake-rod, and a ratchet, *c*, formed on the lower end of the said sleeve is arranged to engage the teeth of the ratchet *a* when the sliding sleeve is thrown down. A crank, C', projecting from the side of the sleeve C at or near its top end, is used to turn the rod A and set up the brake in the usual manner. A brake-wheel might of course be used in lieu of the crank; but I prefer the crank, or at least a crank-pin if a wheel is used, for, by the ratcheted connection between the crank and the brake-rod, the operator can always apply the

crank in the position to secure the greatest leverage. For the purpose of disengaging the ratchet *c* from the ratchet *a*, and thereby releasing the brake instantly, I employ a lever, D, arranged to engage the sleeve C and slide it up on the brake-rod. The lever D is fulcrumed to the post *d*, which rests on the railing of the car-platform, and is connected, by means of the link E, with a treadle-lever, F, which last-named lever is fulcrumed to the car-platform. When the operator places his foot on the rest *f* and presses down, the link E and its connecting-levers are moved in the direction of the arrows, and the aforesaid ratchets are thereby disengaged, as required. A spiral spring, *c'*, within the sleeve is arranged to occupy an annular chamber concentric with the rod A and sleeve C, and hold the ratchet *c* down upon the ratchet *a*, except when thrown up by the action of the treadle-lever F, as above described. A retaining-ratchet, G, on the lower part of the brake-rod just above the car-platform, is engaged by the spring-pawl H, so as to hold the brake firmly set in the usual manner. The pawl H is released from its ratchet simultaneously with the release of the clutch *a c* by the action of the same lever F, which has a lug, *f'*, arranged to press against the lever F and disengage it as the said lever F is pressed down.

The brake-operating device herein described is especially adapted to use on street-cars; yet it may be readily applied to steam-cars as well.

Having described my invention, I claim—

1. The device for operating a car-brake, consisting of the ratchet brake-rod A *a* and ratchet-sleeve C *c*, combined to operate as set forth.
2. The unshipping device, consisting of the parts D E F G H, combined to operate as set forth.

JONAH SADLER.

Witnesses:

FRANKLIN BARRITT,
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