(No Model.)

2 Sheets—Sheet 1.

# J. S. BOKENKOTTER.

## TRACK BRAKE FOR CARS.

No. 376,363. Patented Jan. 10, 1888.

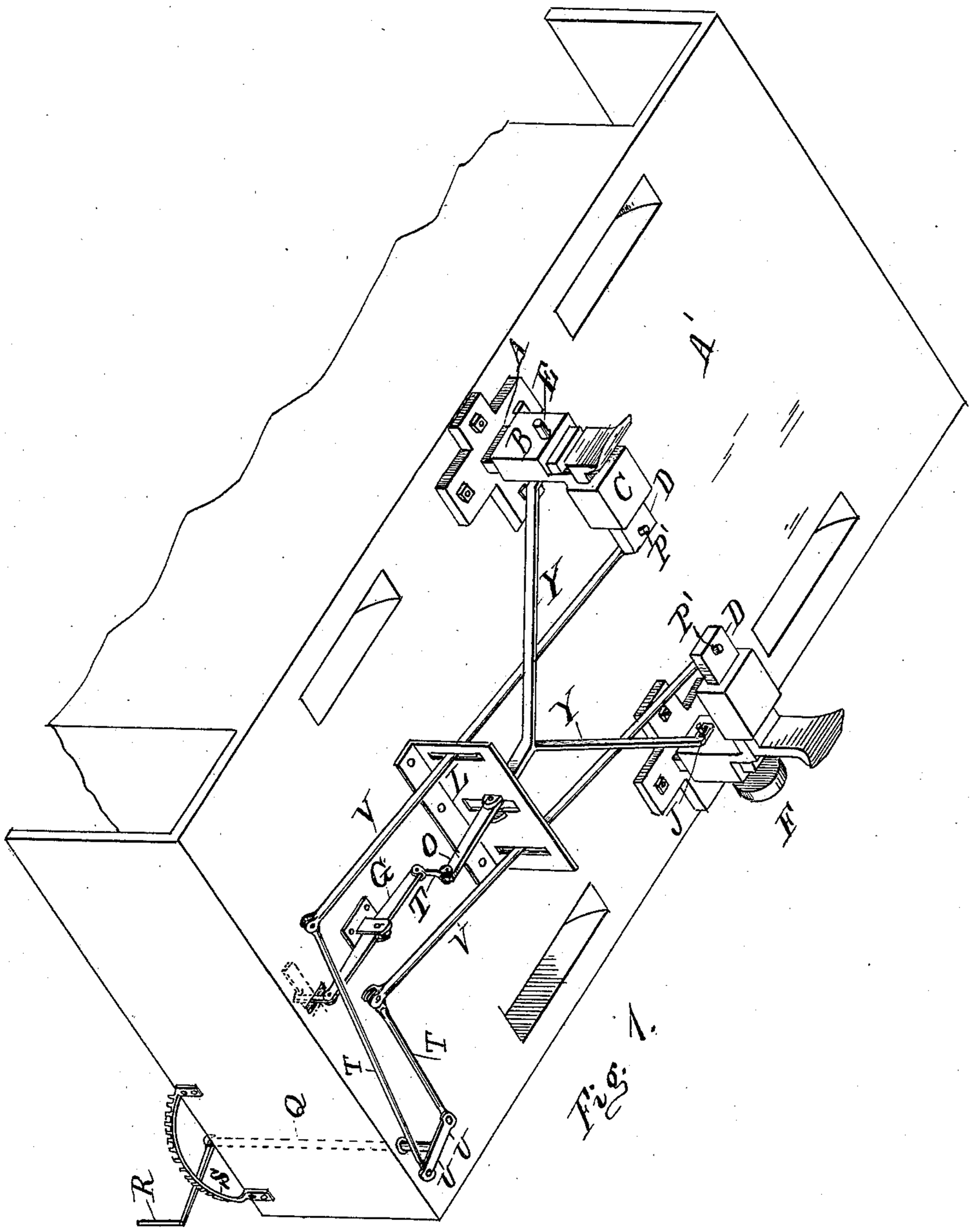


Fig. 1.

WITNESSES:

Robert Kirk.

Robt. S. Millar

INVENTOR:

John S. Bokenkotter.

By J. L. Zerbe

Attorney.

(No Model.)

2 Sheets—Sheet 2.

# J. S. BOKENKOTTER.

## TRACK BRAKE FOR CARS.

No. 376,363. Patented Jan. 10, 1888.

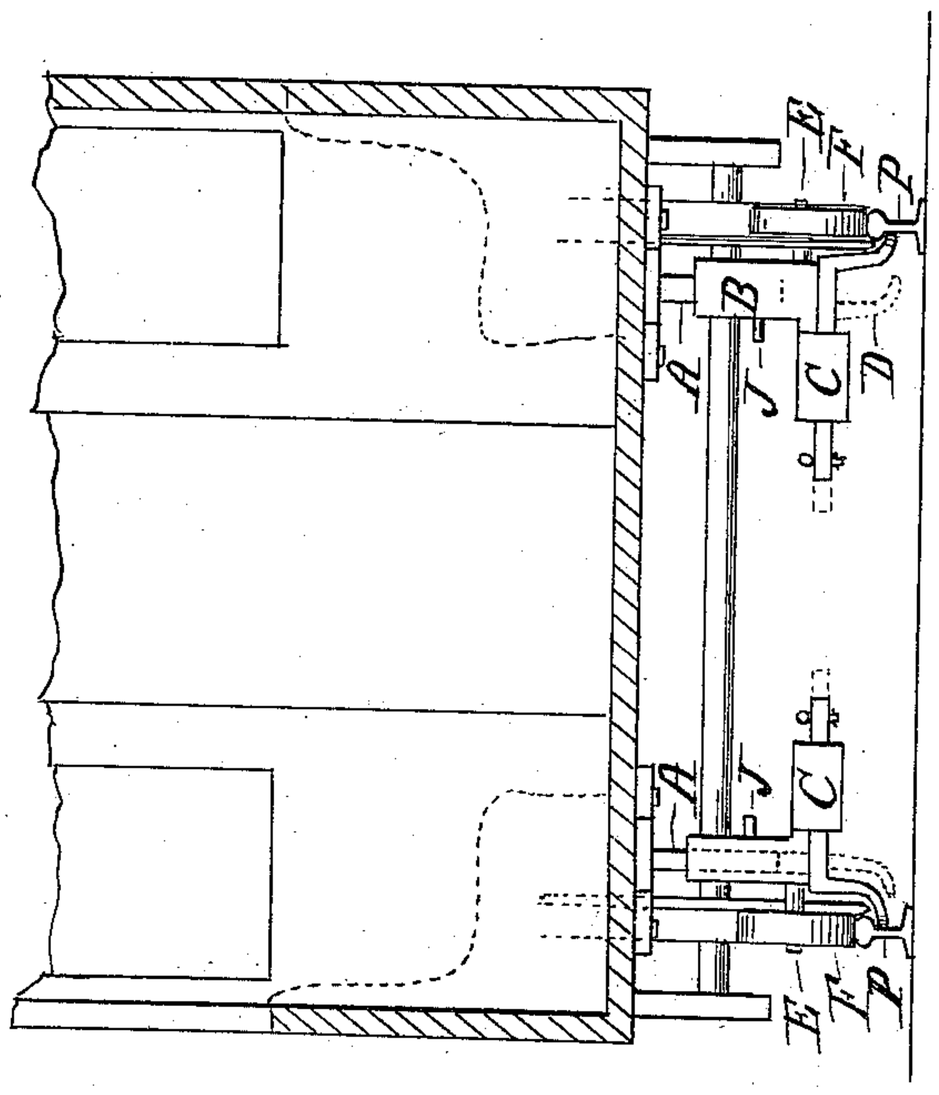


Fig. 2.

WITNESSES:

Robert Kirk.

Robt S. Millar

INVENTOR:

John S. Bokenkotter

By J. L. Zerbe

Attorney.

# UNITED STATES PATENT OFFICE.

JOHN S. BOKENKOTTER, OF NORWOOD, OHIO.

## TRACK-BRAKE FOR CARS.

SPECIFICATION forming part of Letters Patent No. 376,363, dated January 10, 1888.

Application filed June 9, 1887. Serial No. 240,754. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN S. BOKENKOTTER, of Norwood, in the county of Hamilton and State of Ohio, have invented a new and useful Improvement in Track-Brakes for Cars, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is an under perspective view of a street-car to which my invention is applied; and Fig. 2 is a transverse view forward of the locking device, showing the latter in engagement with the rails.

The object of my invention is to provide an efficient and simple device, whereby street-railway and incline cars may be readily and reliably stopped; and it consists of parts hereinafter described, reference being had to the accompanying drawings by suitable letters and figures corresponding to like letters and figures in specification; and it consists of an operative mechanism, whereby a pair of brake-shoes are brought laterally into engagement with the inner sides of the rails, taking a locking-hold under the eaves of the rail-crown.

In order to carry my invention into effect, I provide on either side between the wheels a downwardly-projecting arm or stud, A, rigidly secured to the bottom of the car A'. Upon this stud is a sleeve, B, which conforms in shape thereto, and which slides up and down a limited distance, for purposes hereinafter set forth. This sleeeve B has its lower end turned laterally, forming a rigid integral extension. Projecting outwardly from the sleeve is a stud, E, carrying a friction-roller, F. Upon this lateral extension is formed integrally a second sleeve, C, into which sleeve is placed a sliding plate or short bar, D, which moves laterally with respect to the car. This plate D is at a suitable point turned vertically downward, thence outward, the latter portion being formed oblong, and outwardly somewhat rounded.

In order to bring the device into action, two movements are required—viz., a downward movement of the main sleeve B upon the stem A and an outward movement of the locking-plate against the rail P. The first movement is effected by using the following mechanism: A vertical shaft, Q, provided at its top with a handle, R, working over a notched segment, S, is suitably journaled, and extends beneath the bottom of the car, its lower end provided with vertically-projecting arms U U. To these arms are respectively secured connecting-rods T T. The other ends of these rods join to the forward ends of stiff bars V V, that extend rearwardly to and connect with the sliding lock-plates at P' P'.

About midway of the bars V there is a rigidly-pendent plate, L, secured to the bottom of the car. This plate is provided with slots through which the bars V pass, and which slots serve as fulcrum-bearings for the bars in operating the sliding lock-plates D.

The vertical movement, which really should have been described first, is accomplished by the following mechanism: Pivotally secured to the pendent plate L is an arm, O, which rearwardly of the plate is formed with two prongs, Y, extending, respectively, to the vertical sliding sleeves upon the vertical pendent rigid stem. These prongs are provided with slotted or forked terminations to engage with a rigid stud, J, projecting from the sleeve, so as to compel its movement up or down on the stem when required. The forward extension of the pivoted arm is, by means of a short connecting-rod, T, joined to a foot-lever, G. This foot-lever extends upwardly through the bottom of the platform and terminates with a foot-plate within easy reach of the operator.

Although my device is eminently adapted to street-cars, it is obvious that the sphere of its usefulness extends much farther, and will be applicable to railroad-cars, or cars of any description operating on rails.

Having described my invention, what I claim as new is—

1. A locking device for cars, consisting of retractile plates brought into and out of engagement with the sides of the track-rails, said plates being operated by a dual system of compound leverage, mounted as described, and terminating forwardly with suitable engagement-points in reach of the operator, substantially as herein set forth.

2. A brake for railway-cars, consisting of two pendent arms on the lower side of the car-body, one on each side, each carrying a sleeve provided with an inwardly-projecting

right-angled or horizontal sleeve at its lower end, said horizontal sleeve having therein a horizontal sliding bar with its outer end depressed or bent downward and provided with a shoe which comes in contact with the inner side of the railway-rail, said sleeve and brake-bar being manipulated by suitable levers in reach of the brakeman, substantially as herein set forth.

3. In a brake for railway-cars, the pendent arms beneath the cars, each provided with sleeves sliding thereon, the lower ends of said sleeves having horizontal sleeves carrying the brake-bars, and a pulley or friction wheel on the outside of each vertical sleeve, which rests on the track when the sleeve is depressed, substantially as herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand, this 24th day of February, 1887, in the presence of two witnesses.

JOHN S. BOKENKOTTER.

Witnesses:
E. D. BATEMAN,
J. W. ROSS.