

(No Model.)

M. M. WOOD.
TROLLEY POLE CATCHER.

No. 471,206.

Patented Mar. 22, 1892.

Fig. 1.

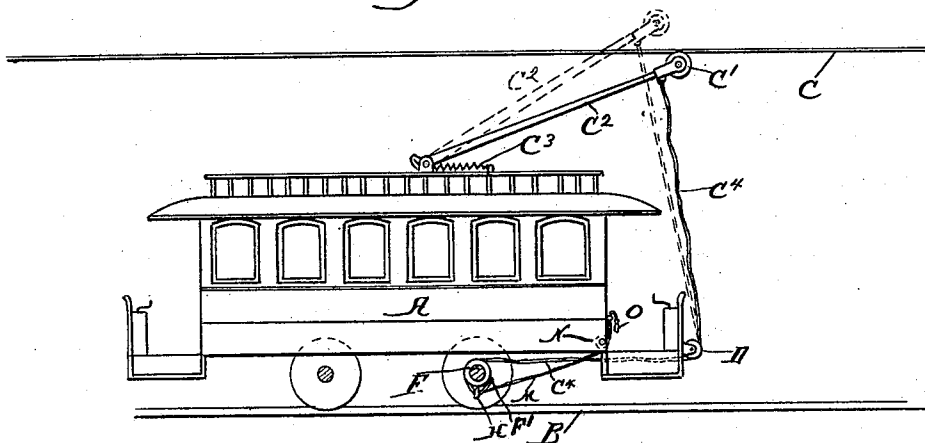


Fig. 2.

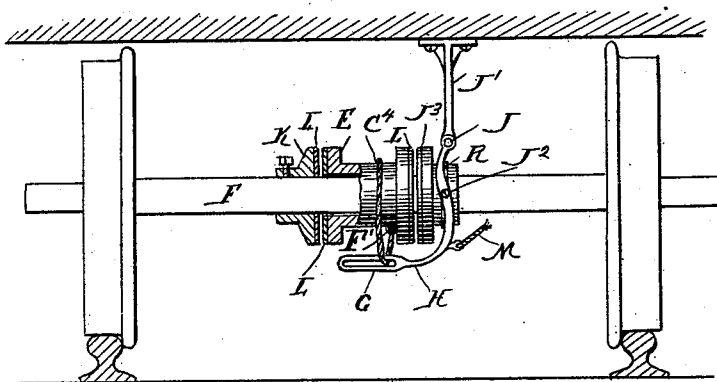
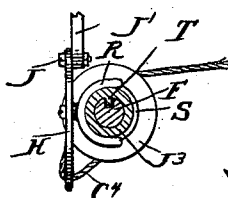


Fig. 3.



Witnesses:

Celeste P. Chapman
Harriet M. Day.

Inventor:

Mantraville M. Wood.

by Francis W. Parker,
Attorney.

UNITED STATES PATENT OFFICE.

MONTRAVILLE M. WOOD, OF CHICAGO, ILLINOIS.

TROLLEY-POLE CATCHER.

SPECIFICATION forming part of Letters Patent No. 471,206, dated March 22, 1892.

Application filed June 4, 1891. Serial No. 395,075. (No model.)

To all whom it may concern:

Be it known that I, MONTRAVILLE M. WOOD, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Trolley-Pole Catchers, of which the following is a full, clear, and exact specification.

My invention relates to trolley-catchers, and has for its object to provide means whereby the motion of the car or some part thereof may be utilized to bring the trolley-catcher down. It is illustrated in the accompanying drawings, wherein—

Figure 1 is a view of a car with my device attached. Fig. 2 is a detail side view of the drum or sleeve and clutch. Fig. 3 is a cross-section.

Like parts are indicated by the same letters in all the figures.

A is the body of the car; B, the track on which it runs; C, the trolley-wire, adapted to be engaged by the trolley C' on the end of the trolley-pole C², which is normally upwardly forced by the spring C³ and controlled by the rope C⁴, which is normally slack. The rope C⁴ passes over the pulley D on the end of the car, and thence about the sleeve E on the axle F, thence through the slot G on the lever H, and is finally attached to the sleeve F at F'. The lever H is pivoted at J to the frame J' on the bottom of the car or portion of the truck, and is also pivotally connected at J² with the yoke R on the movable collar J³, which rotates with the axle F.

K is a fixed collar on the axle F.

L L are bearing-surfaces or friction-plates upon the collars K and J³ and upon the ends of the sleeve E.

M is a rope secured to the lever H and passing upwardly over the roller N and terminating in the handle O.

The yoke R rests in the groove S in the collar J³, and the collar is keyed to the shaft F by the key T, so that the collar is movable along the shaft and rotates with it. These parts might be modified considerably without departing materially from the spirit of my invention, it merely consisting in employing the motive power of the car, either the axle thereof or some driven mechanism or part.

The use and operation of my invention are as follows: Normally in the operation of street-cars the trolley is kept elevated against the trolley-wire; but if it should escape from the trolley-wire, which sometimes occurs, great damage is likely to result from the engagement of the trolley-pole with wires or other obstructions with which it may come in contact. Hence it is necessary or desirable to have means of drawing down the trolley-pole. The rope C⁴ is normally slack; but if the trolley thus escapes from the trolley-wire the pole, being upwardly forced by its spring, will tighten the rope C⁴ and pull upon the same, thus rocking the lever H on its pivotal point J, whereby the collar J³ is moved along the shaft F far enough to cause the engagement of the several friction-plates L, so as to make the sleeve E rotate on the shaft F far enough to wind up the rope C⁴ until the trolley-pole is brought down and the trolley lowered below the trolley-wire. When this result is observed, the operator may release the trolley-pole by throwing the lever out and separating the friction-plates L by pulling upon the handle O of the rope M. He may then permit the trolley to rise to its accustomed position, loosening the rope C⁴ and unwinding the sleeve until the parts have resumed their normal position.

I claim—

1. In a trolley-catcher, the combination of a trolley normally upwardly held against the trolley-wire, a rope whereby the same may be drawn down, means for winding the rope to bring the trolley down, ordinarily disconnected from the motor mechanism of the car, and a catch to throw such winding apparatus into operation, said catch adapted to be operated by the tightening of the rope.

2. In a trolley-catcher, the combination of a trolley normally upwardly held against the trolley-wire, a rope whereby the same may be drawn down, means for winding the rope to bring the trolley down, ordinarily disconnected from the motor mechanism of the car, and a catch to throw such winding apparatus into operation, said catch adapted to be operated by the tightening of the rope and consisting of a lever, to which the rope is applied, and a clutch controlled by such lever,

so as to set the winding apparatus in operation when the lever is rocked upon its pivot by the tightening of the rope.

3. In a trolley-catcher, the combination of
5 a trolley normally upwardly held against the
trolley-wire, a rope whereby the same may be
drawn down, means for winding the rope to
bring the trolley down, ordinarily disconnected
10 from the motor mechanism of the car,
and a catch to throw such winding apparatus
into operation, said catch adapted to be op-

erated by the tightening of the rope, said
winding apparatus consisting of a sleeve
loose on the axle or other rotating part and
friction-plates controlled by the catch, where- 15
by the sleeve is coupled to, so as to rotate
with, such rotating part.

MONTRAVILLE M. WOOD.

Witnesses:

CELESTE P. CHAPMAN,
HARRIET M. DAY.