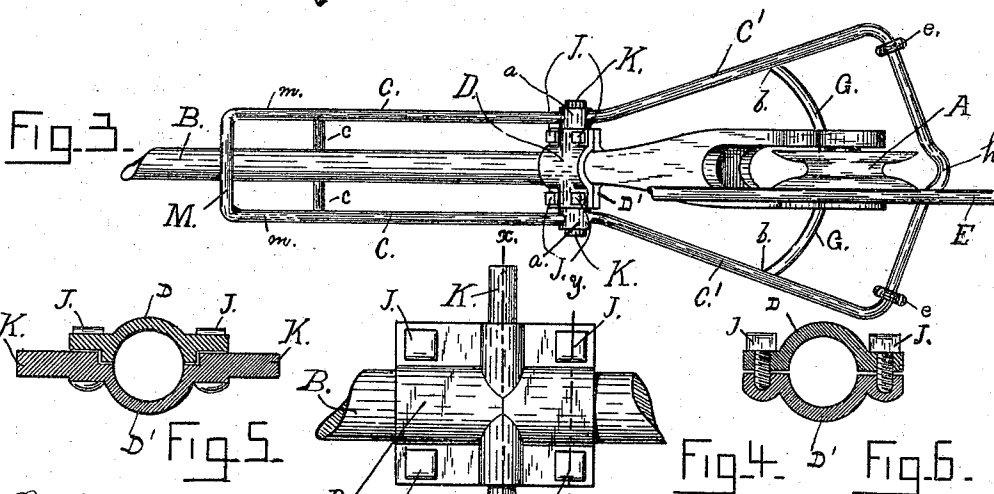
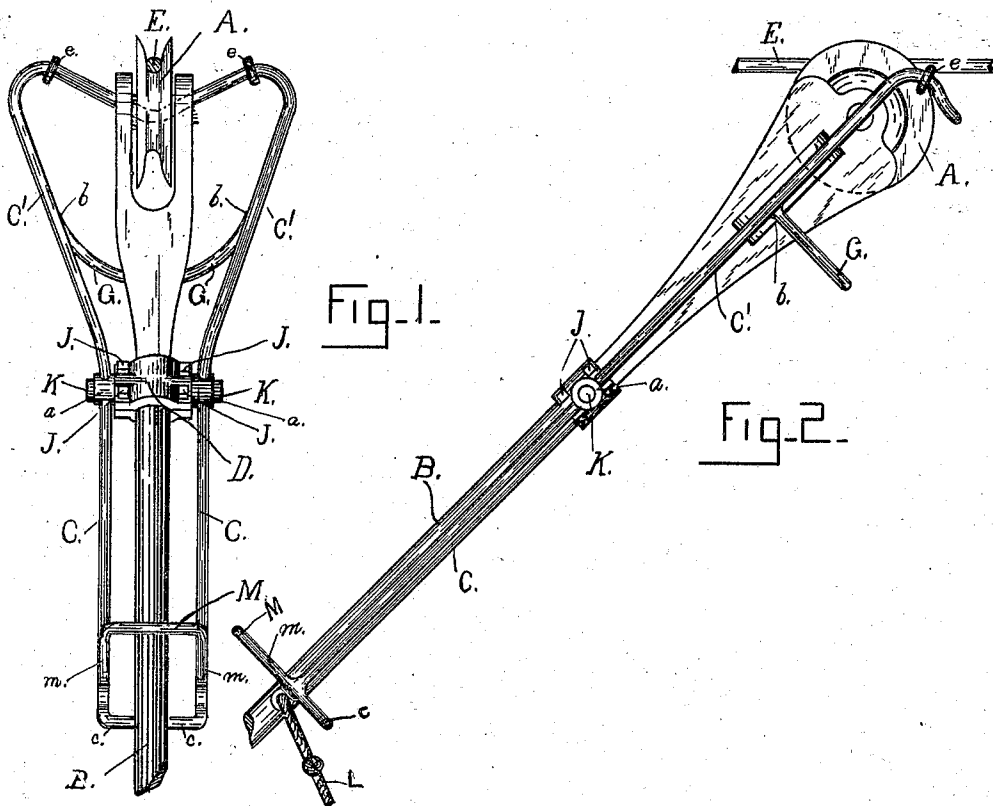


(No Model.)

C. C. LYNDE.
TROLLEY FINDER.

No. 542,591.

Patented July 9, 1895.



Witnesses:
Joseph B. Miller
John F. Rowe

Fig. 7.

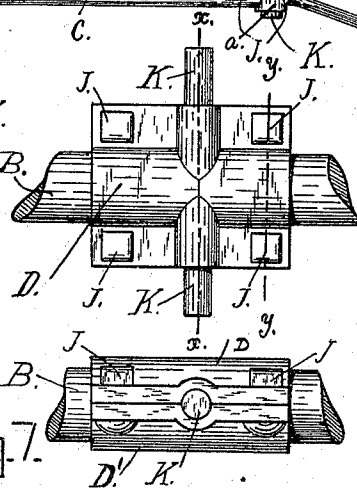


Fig. 4. Fig. 6.

Inventor:
Charles C. Lynde
By H. E. Montgomery
Attorney.

UNITED STATES PATENT OFFICE.

CHARLES C. LYNDE, OF BUFFALO, NEW YORK.

TROLLEY-FINDER.

SPECIFICATION forming part of Letters Patent No. 542,591, dated July 9, 1895.

Application filed November 28, 1894. Serial No. 530,228. (No model.)

To all whom it may concern:

Be it known that I, CHARLES C. LYNDE, a citizen of the United States, residing at the city of Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Trolley-Finders; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

My invention relates to that class of devices which are designed to guide the trolley-wheel into engagement with the trolley-wire, and to prevent the trolley-pole from springing above the trolley-wire and colliding with the cross supporting-wires in the event of the trolley-wheel becoming accidentally disengaged while the car is in motion.

My invention consists of a certain improved construction and arrangement of parts connected to and operating with the trolley-pole, all of which will be more fully hereinafter described, and pointed out in the claims.

In the drawings, Figure 1 is a front elevation of my improved device, showing the trolley-wheel in engagement with the trolley-wire. Fig. 2 is a side elevation of same. Fig. 3 is a top plan view of same, showing the trolley-wheel disengaged from the trolley-wire and the wheel and its pole held under the wire. Fig. 4 is an enlarged detached view of the clamp. Fig. 5 is a sectional view of Fig. 4, taken in the line *x x*. Fig. 6 is a similar view taken in the line *y y*, and Fig. 7 is a side view of Fig. 4.

Referring to the drawings, A is the trolley-wheel, journaled in the upper bifurcated end of the trolley-pole B, and E is the trolley-wire.

My improved device, which consists of a stiff wire frame pivoted to the trolley-pole B, is constructed as follows:

C C are two arms located on either side of the trolley-pole B and parallel therewith. A loop *m*, having upper cross-bar M and lower cross-bar *c*, is rigidly secured at right angles to the lower ends of the side arms C C, the loop *m* loosely encircling the trolley-pole B.

a a are loops or sockets upon the side arms C C, above and beyond which are the diverging arms C' C', connected at their upper ends by the cross-piece *h*, which curves downwardly and is depressed at its center, as shown.

E E are rubber rings which encircle the cross-piece *h* at its outer ends and serve as guards to prevent the trolley-wire from slipping off the upper part of the frame.

G is a strengthening-brace in the form of a loop attached at the points *b b* on the under side of the diverging arms C' C' of the frame. This loop G, however, is not always essential and may be omitted if the frame is strong enough without it.

A clamp composed of the upper part D and the lower part D' is rigidly secured to the trolley-pole B by the bolts J. The lower part D' of the clamp is provided with the integral trunnions K K, adapted for loose engagement with the loops or sockets *a a* upon the frame, which is by this means pivoted to the trolley-pole B. A cord L is attached to the lower end of the frame by means of which the frame is manipulated.

My improved device, just described, operates as follows: When the trolley-wheel A becomes accidentally disengaged from the trolley-wire E the trolley-pole B is forced upwardly and the cross-piece *h* of the wire frame strikes the trolley-wire E, thus preventing any further upward movement of the trolley-pole B, as clearly shown in Fig. 3. The cord L is then pulled down, carrying with it the lower part of the wire frame below its pivot point, its movement being limited by the cross-bar M of the loop *m* at its lower end. This movement causes the upper part of the wire frame above its pivot-frame to be elevated, throwing the cross-piece *h* against the trolley-wire E, thus raising it a short distance above the trolley-wheel A, and on releasing the cord L the trolley-wheel springs up in contact with the trolley-wire. When the trolley-wheel A becomes disengaged from the trolley-wire E, the cross-bar C of the loop *m* comes in contact with the pole B and holds the frame in the position shown in Fig. 3. When the trolley-wheel is to be reserved in position upon the trolley-wire, my improved frame

makes this operation simple and easy by guiding the wire directly to the groove in the wheel.

I claim—

5 1. A trolley-guide consisting of a frame centrally pivoted to the trolley-pole, its lower portion having a loop encircling the trolley-pole to limit its swinging movement and its upper swinging portion having a cross-piece
10 adapted for contact with the lower side of the trolley-wire substantially as and for the purpose stated.

2. A trolley-guide consisting of a frame centrally pivoted to the trolley-wire, a clamp ad-
15 justable upon the trolley-pole and upon which the pivot for the frame is located, the lower portion of the frame having a loop encircling the trolley-pole to limit its swinging move-
20 a cross-piece adapted for contact with the

lower side of the trolley-wire substantially as and for the purpose stated.

3. A trolley guide consisting of a frame comprising the side bars C, C, having at their lower ends the loop *m* encircling the trolley- 25 pole B, the upper diverging arms C' C' connected at their outer ends by the downwardly curved cross-piece *h*, and the clamp D D' adjustably secured to the trolley-pole B and having the trunnions K, K, adapted for loose en- 30 gagement with the sockets *a*, *a*, on the frame all combined and operating substantially as and for the purpose stated.

In testimony whereof I have hereunto signed my name to this specification in the 35 presence of two subscribing witnesses.

CHARLES C. LYNDE.

Witnesses:

JOSEPH B. MILLER,
JOHN F. ROUSE.