

(No Model.)

J. P. TAYLOR.
TROLLEY FINDER.

No. 541,796.

Patented June 25, 1895.

Fig. 1.

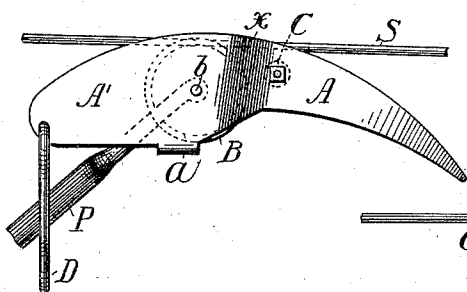


Fig. 2.

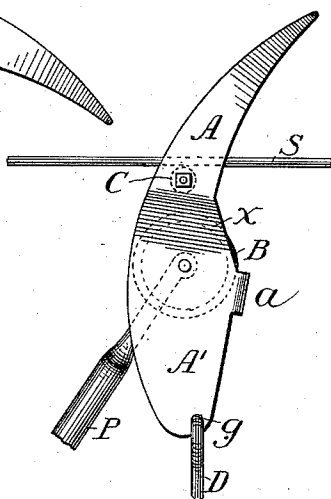


Fig. 3.

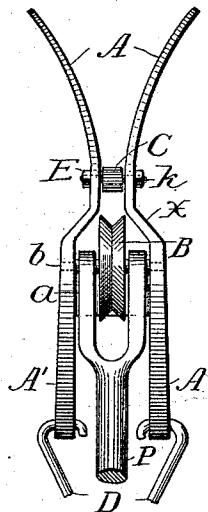


Fig. 4.

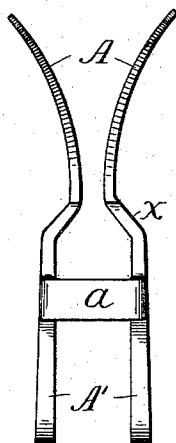


Fig. 5.

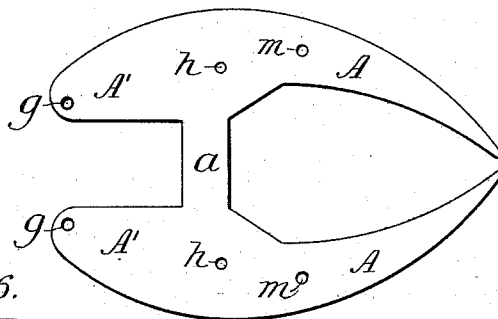


Fig. 6.

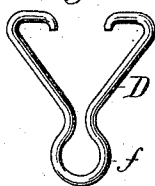


Fig. 7.



Fig. 8.



Fig. 9.



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TROLLEY-FINDER.

SPECIFICATION forming part of Letters Patent No. 541,796, dated June 25, 1895.

Application filed March 12, 1895. Serial No. 541,455. (No model.)

To all whom it may concern:

Be it known that I, JAMES P. TAYLOR, a citizen of the United States, residing at Fort Worth, in the county of Tarrant and State of Texas, have invented certain new and useful Improvements in Trolley Attachments, of which the following is a specification.

The object of my invention is to construct a trolley guide which is simple, durable, and can be manufactured at little cost, and can be easily and readily attached to the trolley already in use and which can be used on either overhead or underground trolleys.

Other objects and advantages will be fully understood from the following description and claims when taken in connection with the annexed drawings.

Reference is to be had to the accompanying drawings, forming a part of this specification, and in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of the guide in its normal position. Fig. 2 is a side elevation of the guide, showing the position of the guide when in operation. Fig. 3 is a plan view of the guide in its normal position. Fig. 4 is a view of the bottom of the guide. Fig. 5 is a diagrammatic view of the invention as it is cut out of a piece of sheet metal. Fig. 6 is a view of a clevis. Fig. 7 is a view of a spindle or rock shaft for the spool, showing the oil cup. Fig. 8 is a view of the edge of a piece of sheet metal out of which the guide is to be cut. Fig. 9 is a view of the rock shaft for the trolley wheel.

The device is one piece of metal with the necessary attachments for holding it in place.

A A are the rear extensions of the device.

A' A' are the extensions in front of the trolley wheel.

S is a trolley wire.

P is an ordinary trolley pole.

B is a trolley wheel.

D is a clevis.

C is a spool which runs on the spindle *k* behind the trolley when the trolley wheel is in its normal position.

E is a nut on the end of spindle *k*.

g g are apertures in the front portions of the guide for inserting the hooks of the clevis D.

h h are bearings for the guide.

m m are bearings for the spindle *k*.

a is the bottom of the guide which serves to hold the two parts of the guide together and also to hold shaft *b* in place.

The shaft *b* needs no nuts on the end to hold it in place, since it has bearings in the sides of the guide and is held securely in place by the guide.

The nuts on the end of spindle *k* and the bottom of the guide *a*, constitute the means for holding the guide in place and the bearings *h h* are all the means necessary to attach the guide to the trolleys already in use.

The positions of the trolley wheel B and the spool C are shown in dotted circles in Figs. 1 and 2.

The tops of the two sides of the guide are substantially oval. The bottom parts of the rear extensions of the sides are concave as shown in Fig. 1. The sides of the guide at the front end are thick and heavy and taper from the front end to the rear end where they are thin and light. This tapering is best shown in Fig. 8. The guides can be made in any size that will be convenient. The parts *x x*, of the sides between the bearings *h h*, and *m m*, should be about as high as the trolley wheel when the guide is in its normal position. Figs. 3 and 4 show how the side must be inclined at *x x*, to prevent the line S, from falling between the sides of the guide and the sides of the trolley pole which have bearings for the trolley wheel shaft.

The spool C, runs at a short distance from the rear of the trolley wheel.

Fig. 7 shows an enlarged view of the spindle *k* for the spool C. Only the end portions of the spool run on the spindle. The spindle is smaller intermediate its ends for the purpose of holding oil.

A clevis D, is attached to the front portions of the sides B B. The clevis has a loop or key-hole *f*, for attaching a rope. The clevis must be attached to the sides B B, at points to the rear of a perpendicular line drawn from the shaft *b*, when the guide is in a position as shown in Fig. 2, to throw the guide backward instead of forward.

The working of the guide is as follows: The upward pressure of the trolley pole and the downward pressure of the line wire hold the guide in the position shown in Fig. 1. Both the trolley wheel and the spool run un-

der the line wire. When the trolley pole is thrown down accidentally or the line wire is accidentally thrown up the heavy and front portions of the guide will cause the guide to
 5 assume the position shown in Fig. 2. The ends A A, will extend up and prevent the trolley wheel from going to one side. The ends A A, are flared from the spool so that they will aid in adjusting the trolley wheel
 10 and the spool C, will prevent friction while the trolley wheel is being adjusted. The sides A A, and the spool C, being metallic prevent the contact from being broken.

The end portions A A, can be flared as wide
 15 as desirable and the object of flaring these portions is to aid a person in adjusting the trolley when a car is put on the track or when a car is to be reversed, &c.

The ends of the spool must be made to
 20 work close to the bearings in order to prevent the line wire from running between the ends of the spool and the sides of the guide.

Various features in my invention may be
 25 changed in many ways without departing from the invention.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A trolley-guide pivoted on the ends of
 30 a trolley-wheel shaft, said guide consisting of a piece of sheet metal having bearings for a spindle, a spool mounted on said spindle and a clevis mounted in apertures in said guide.

2. A trolley-guide consisting of heavy front
 35 portions having a clevis mounted therein, light rear portions having a spool mounted on a spindle which has bearings in said rear portions, said guide being pivoted on the ends of
 40 a trolley-wheel shaft and held thereon by nuts on the ends of the spool bearing spindle and by the bottom connecting portion of said guide.

3. A trolley-guide consisting of a piece of
 45 sheet metal pivoted on the ends of a trolley-wheel shaft, a spool mounted on a spindle having bearings in said piece of metal and located in rear of the trolley-wheel, and a clevis mounted in the lower part of the front portions of said guide.

4. In a trolley-guide the combination of a
 50 piece of sheet metal, pivoted on the ends of a trolley-wheel shaft, with a clevis mounted in the front portions and a spool mounted on a spindle having bearings in the rear portions
 55 of said piece of sheet metal.

5. In a trolley-guide, the combination of two side portions, having heavy front extensions and light rear extensions and a bottom portion for holding said side portions together,

all consisting of a single piece of sheet metal
 60 pivoted on the ends of a trolley-wheel shaft, with a clevis mounted in said front extensions, a spool mounted on a spindle having bearings in said rear extensions, and nuts on said spindle for holding said rear extensions
 65 in position.

6. A trolley-guide consisting of a piece of
 metal having bearings for pivoting the guide on the ends of a trolley-wheel shaft, a clevis
 70 mounted in the front portions of said guide, and a spindle carrying a spool and having bearings in the rear portions of said guide; said spindle being small intermediate its length.

7. A trolley-guide consisting of a piece of
 75 sheet metal and means for attaching the guide to a trolley wheel shaft; said guide having heavy front portions with a clevis mounted therein and light rear portions having a spindle mounted therein for carrying a spool and
 80 being flared at the ends.

8. A trolley-guide having two sides oval on
 the upper edges and having heavy front extensions and light rear extensions flared at
 85 the ends, a bottom portion for holding said sides together; said guide having a spool mounted on a spindle having bearings in said rear extensions.

9. A trolley-guide pivoted on the trolley-
 wheel shaft and consisting of a piece of metal
 90 having side pieces with oval upper edges and a bottom portion for holding said side pieces together, said side pieces having heavy front extensions and light rear extensions with
 95 flared ends, a spindle mounted in said rear extensions and carrying a spool and a clevis mounted in apertures in said front extensions.

10. A trolley guide consisting of a clevis, a
 spool, a spindle for said spool, nuts on said
 100 spindle, and a piece of metal having two sides with oval upper edges, bearings in said sides for the guide, heavy front extensions with apertures for the hooks of a clevis, light rear extensions with flared ends; said rear extensions having bearings for said spindle; and
 105 a bottom portion for holding the two sides together, all substantially as described.

11. A trolley guide having a spool supported
 on a spindle having bearings in two sides of
 the guide which has front and rear extensions;
 110 said front extensions being heavier than said rear extensions, for automatically replacing the trolley wire in the trolley wheel.

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