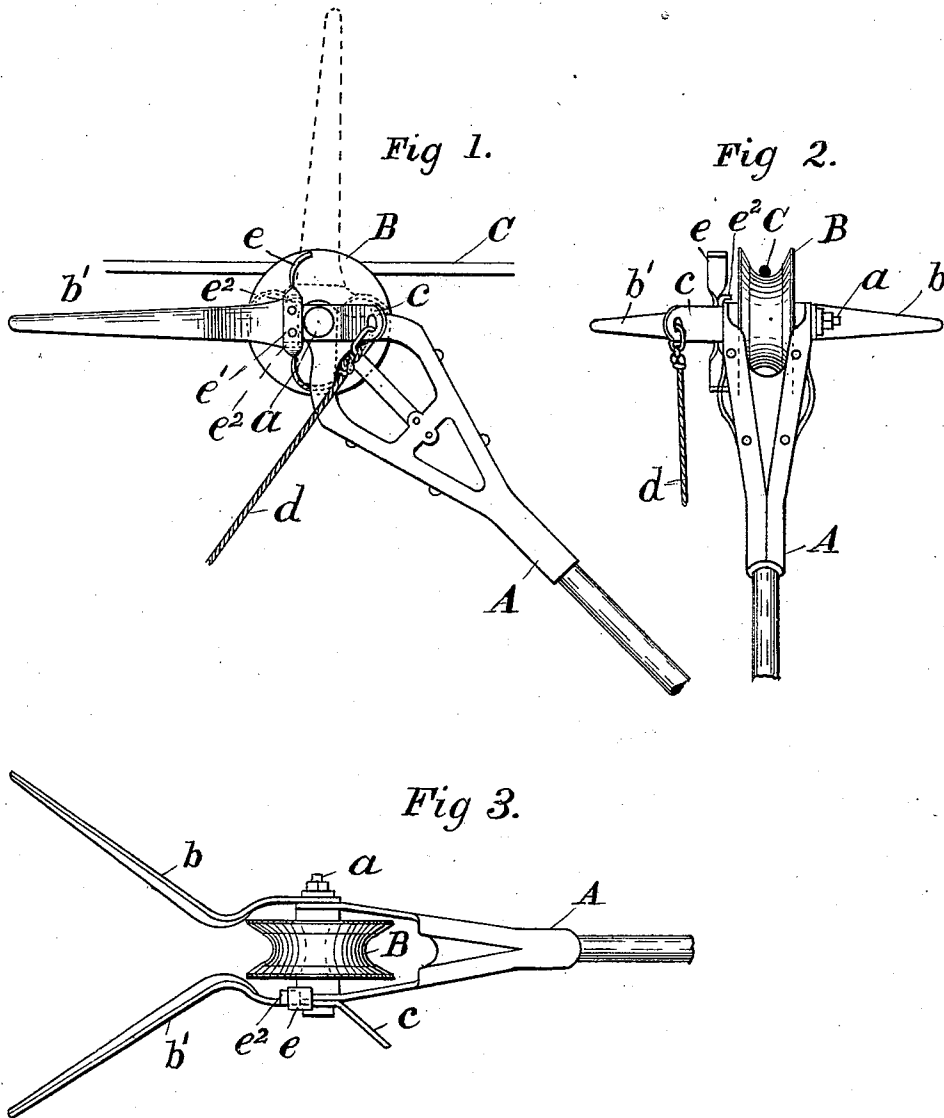


(No Model.)

T. E. GRESSLE.
TROLLEY WIRE FINDER.

No. 521,311.

Patented June 12, 1894.



-WITNESSES-

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UNITED STATES PATENT OFFICE.

THEOPHILUS EDWARD GRESSLE, OF INDIANAPOLIS, INDIANA, ASSIGNOR OF NINE-TWENTIETHS TO FRANK HITTLE, OF BALTIMORE, MARYLAND.

TROLLEY-WIRE FINDER.

SPECIFICATION forming part of Letters Patent No. 521,311, dated June 12, 1894.

Application filed October 28, 1893. Serial No. 489,346. (No model.)

To all whom it may concern:

Be it known that I, THEOPHILUS EDWARD GRESSLE, of Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Trolley Supports and Adjusters, of which the following is a specification, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention is designed to guide the conducting wire to the groove of the trolley after the latter has been shifted therefrom, whereby rapidity and ease in again causing contact to be made between the trolley and conducting wire are accomplished.

The invention is also designed to admit of the required reversibility of the trolley support necessary in changing the direction of the car, and to effect the automatic readjustment of the parts to normal position.

In the accompanying drawings Figure 1 is a side view of my improved device, a part thereof being shown erected in dotted lines. Fig. 2 is an end view of the invention its parts being in normal or running position. Fig. 3 is a top view or plan of Fig. 1.

Similar letters of reference indicate similar parts in the respective figures.

A is the trolley staff, in the head of which is pivoted the shaft or bolt *a* of the trolley B, which runs loosely upon said shaft.

C is the conducting wire. The portions of the shaft or bolt *a* outside of the forked head of the staff A are squared or flattened, and upon each squared or flattened part is placed a directing bar or guide, which bars or guides are designated by *b* and *b'*. The bar or guide *b'* is provided with a short arm *c*, to the eye of which the rope *d* is attached, by means of which rope the trolley is adjusted to or from the conducting wire. The rope *d* is also used, as more particularly hereinafter described, to erect the bars or guides *b* and *b'* to the position shown by dotted lines in Fig. 1.

A curved plate spring *e* is riveted to the side of the bar or guide *b'*, as seen at *e'*, the spring having two free ends, one of which at the proper time serves, by engagement with the head of the trolley shaft, to hold the bars or guides *b* and *b'* to the position in which

they are shown in the full lines in Fig. 1, or in the corresponding, but reversed, position necessary in the change of direction of the car.

As an additional precaution against movement of the bars or guides *b* and *b'*, when adjusted to such position, the bar or guide *b'* is provided with lips *e²*, which also serve to give the spring the required tension to cause it to throw the bars or guides over the center, and allow them thereafter to fall by gravity to their normal position.

In the operation, it being desired to pull down the trolley so as to remove it from the conducting wire, the operator draws upon the rope *d*, and not only will the trolley be removed from the conducting wire, but the bars or guides *b b'* will be erected to the position shown in dotted lines in Fig. 1, so that the conducting wire shall be confined between them. Their flaring arrangement allows the trolley to be given lateral play, while their convergence to approximately the width of the groove of the trolley causes them, at the proper time, to guide the conducting wire to said groove, and thus restore contact between the trolley and wire. This having been accomplished, and the hold upon the rope *d* released, the tension of the spring *e* causes the bars or guides to be thrown slightly over the center, after which they drop by gravity to their normal position, as shown in full lines in Fig. 1.

Having described my invention, I claim—

1. The combination, with a trolley support and trolley, of directing bars or guides adapted to be elevated by movement upon the axis of the trolley, a double free-ended spring attached to one of said bars or guides, substantially as specified.

2. The combination, with a trolley support and trolley, of directing bars or supports adapted to be erected by movement upon the axis of the trolley, and a double free-ended spring attached to one of said bars or guides said bar or guide having lips, substantially as specified.

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Witnesses:

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