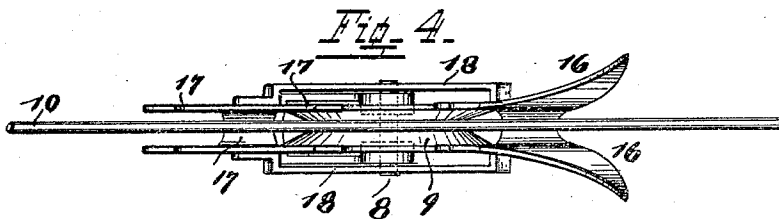
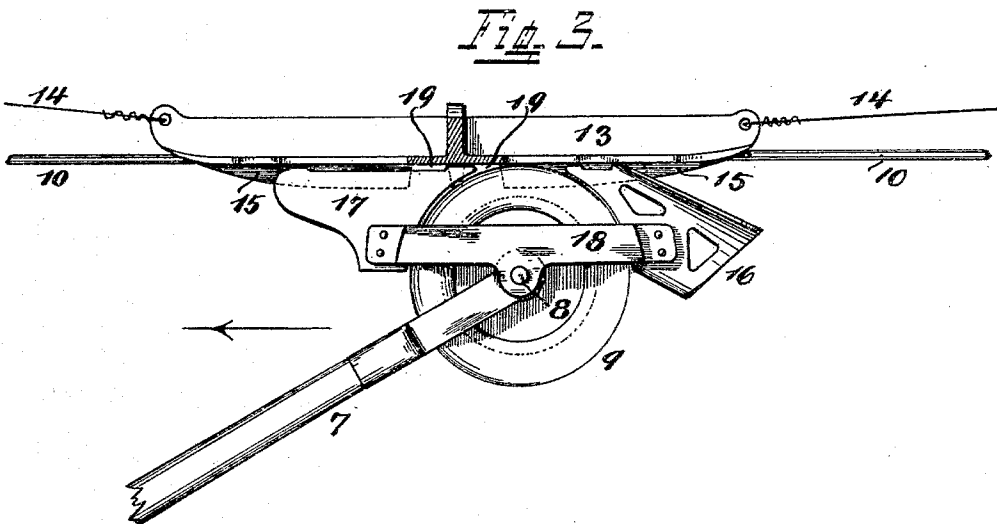
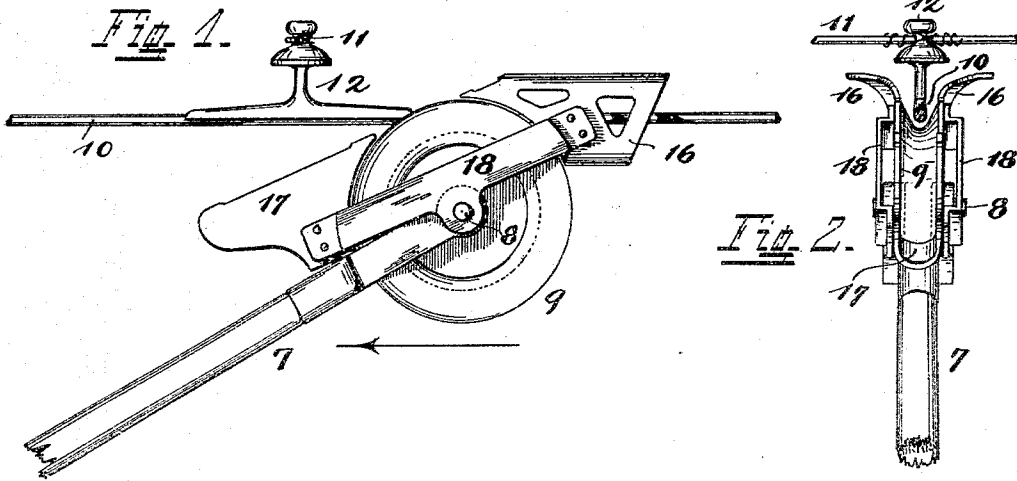


(No Model.)

J. R. TRISLER.
GUARD AND GUIDE FOR ELECTRIC TROLLEYS.

No. 545,393.

Patented Aug. 27, 1895.



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UNITED STATES PATENT OFFICE.

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GUARD AND GUIDE FOR ELECTRIC TROLLEYS.

SPECIFICATION forming part of Letters Patent No. 545,393, dated August 27, 1895.

Application filed June 1, 1895. Serial No. 551,360. (No model.)

To all whom it may concern:

Be it known that I, JOHN R. TRISLER, a citizen of the United States, and a resident of Westwood, Hamilton county, State of Ohio, have invented a new and useful Guard and Guide for Electric Trolleys; and I do declare the following to be a clear, full, 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, attention being called to the accompanying drawings, with the reference-numerals marked thereon, which forms a part of this specification.

This invention relates to an attachment to electric trolleys such as are used in electric-railway systems with overhead wires, where they serve to accomplish the electrical contact between the current-carrying conductor and the motor on the car. They are usually carried in bearings on top of a pole, which is held against the current-carrying wire by means of a spring at its lower end. They may be disengaged whenever necessary or desirable for any purpose by means of a pull-rope secured to the upper end of the pole and depending therefrom. One of the difficulties experienced with these trolleys is the frequency with which they leave the wire, particularly when turning corners or passing other wires at crossings, causing an interruption in the travel of the car until the trolley is placed in position again, which is only accomplished by a tedious and time-consuming manipulation.

The object of my invention is to lessen and, if possible, to prevent altogether the trolley from leaving the wire by providing a device which acts as a guard to it during its travel and as a guide while passing switches and crossings, acting also as a finder in case it should leave the wire, and facilitating its replacing to position.

In the following specification and particularly pointed out in the claims is found a full description of my invention, its operation, parts, and construction, which latter is also illustrated in the accompanying drawings, in which—

Figure 1 shows a trolley with my attachment, in side view, as they appear with the trolley in position and traveling below the

electric conductor. Fig. 2 is a front or edge view of the trolley as it appears traveling toward the observer. Fig. 3 is a view similar to Fig. 1, showing the parts in the position they assume while passing a crossing. Fig. 4 is a top view of the preceding figure.

7 is the upper part of the trolley-pole, the bifurcated end of which forms the bearings for the pin or axle 8, which carries the trolley 9. The face of the latter is grooved to admit the current-carrying wire or conductor 10, which at suitable intervals is supported by guy-wires 11, connecting to it by hangers 12, but insulated therefrom. At switches and crossings—that is, at places where the wires of one track run into another one or cross such other one—intermediate unions or junctions 13 are interposed, to which all wires connect, and which unions are usually supported by the electric wires meeting at it, or they are supported by guy-wires 14. At crossings or unions the electric wire is usually cut out or passes above, the trolley traveling on ridges 15 depending from the underside thereof.

None of the parts so far described forms or contains a part of my invention, which consists substantially of the guard 16, the guide 17, the two connected to each other by a frame 18, by which the whole is pivotally supported at the upper end of the trolley-pole, preferably on the outer ends of pin 8. The respective weights of the two parts 16 and 17 are such that the weight of the latter slightly preponderates to hold guard 16 normally elevated, as shown in Figs. 1 and 2. This is the position of the parts while traveling between crossings, in which guard 16, projecting above the trolley, prevents the same from leaving the wire, and in case it should be off it acts by its outwardly-spreading sides or wings as a finder, which facilitates the resumption by the trolley of its position.

At crossings the possibility for trolleys to leave their position is very great, especially at the break or space 19 between the ridges 15, which is provided to permit passage of the trolley traveling in the other direction. When at such points the trolley passes below the junction guard, 16 becomes depressed, raising as a consequence guide 17 against the under side, of the junction, as shown in Fig. 3.

It will be seen there that as the trolley passes the point of danger at 19 it will be held to its position by parts 17 and 16, each of which is in contact with and traveling on one of the ridges 15, and at all other times while passing the crossing there is at least one of the parts 17 or 16 in contact with one of the ridges, thereby minimizing and practically preventing all chances for the trolley to leave its position. After a crossing is passed the weight of guide 17 raises part 16 again and the latter resumes its function as guard until the next crossing is reached.

The three parts 16, 17, and 18 may be constructed as shown that is—in three separate pieces—and connected together, or they may be cut out of one piece of sheet metal and shaped to the proper form.

Having described my invention, I claim as new—

1. A guide-piece 17 for electrical trolleys, substantially of the shape as shown, adapted to receive the wire or its equivalent between its upright sides and pivotally supported in front of the trolley and in a position to be normally below the upper part of the latter from which position it is adapted to rise for the purpose described.

2. The combined guard and guide for electric trolleys, substantially of the shape as shown and adapted to receive the wire or its

equivalent between the upright sides thereof, both guard and guide pivotally supported one in front, the other behind the trolley and normally in a position wherein the guard is above, and the guide below the upper edge of the trolley.

3. The guard 16 and guide 17 for electric trolleys, each substantially of the shape as shown and each adapted to receive the wire or its equivalent between its upright sides and a frame 18 whereby the two are connected and whereon the whole is pivotally supported in a manner that brings guard 16 normally above the upper part of the trolley.

4. The guard 16 and guide 17 for electric trolleys, each substantially of the shape as shown and each adapted to receive the wire or its equivalent between its upright sides and a frame 18 whereby the two are connected and supported, guard 16 behind and guide 17 in front of the trolley, said frame 18 being pivotally supported and the weight of guide-part 17 preponderating over the weight of the guard for the purpose of holding the latter normally elevated.

In testimony whereof I have hereunto set my hand in presence of two witnesses.

JOHN R. TRISLER.

Witnesses:

C. SPENGLER,

JOHN C. ROGERS.