

(No Model.)

S. HOENINGER.
ELECTRIC RAILWAY.

No. 540,664.

Patented June 11, 1895.

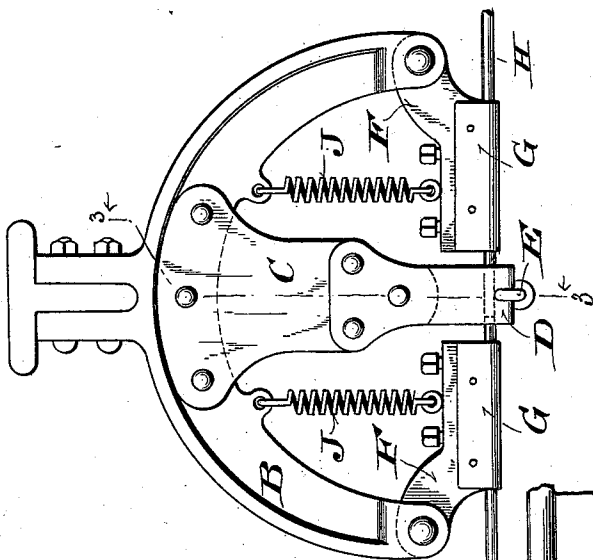


Fig. 1.

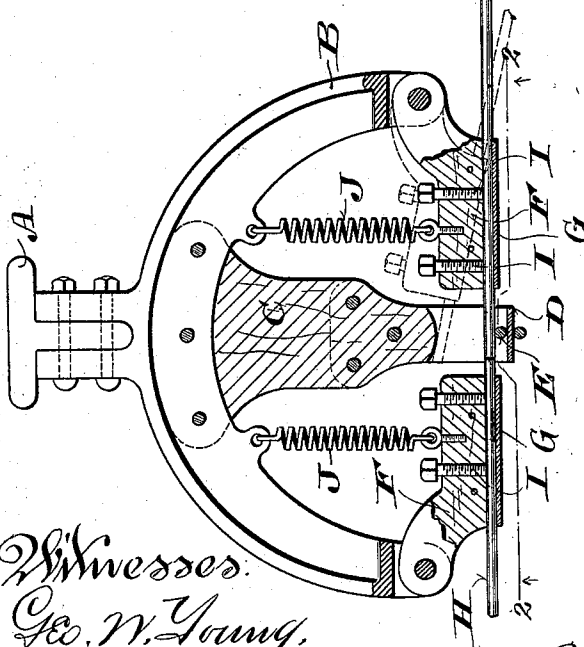
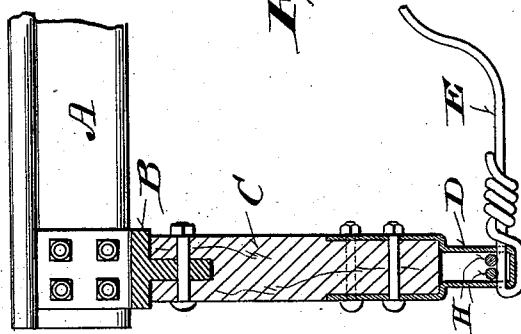


Fig. 2.

Fig. 3.



Witnesses:
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By

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UNITED STATES PATENT OFFICE.

SEBASTIAN HOENINGER, OF MILWAUKEE, WISCONSIN.

ELECTRIC RAILWAY.

SPECIFICATION forming part of Letters Patent No. 540,664, dated June 11, 1895.

Application filed August 15, 1894. Serial No. 520,350. (No model.)

To all whom it may concern:

Be it known that I, SEBASTIAN HOENINGER, a citizen of the United States, and a resident of Milwaukee, in the county of Milwaukee, and in the State of Wisconsin, have invented certain new and useful Improvements in Electric Railways; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention has for its object to automatically and instantly cut-off electric-current from a broken trolley-wire to thereby prevent injury to man or beast that may come into contact with such a wire; and said invention consists in certain peculiarities of construction and combination of parts hereinafter specified with reference to the accompanying drawings and subsequently claimed.

In the drawings, Figure 1 represents an elevation, partly in section, of a portion of an electric-railway system embodying my improvements; Fig. 2, a view taken on line 2 2 of the preceding figure, and Fig. 3 a partly-sectional view on line 3 3 of the first figure.

Referring by letter to the drawings, A represents a lateral arm of a post in a trolley-system electric railway. Bolted or otherwise rigidly secured to the post-arm is a depending yoke B and likewise connected to the yoke central of the same is a block C of hard wood, vulcanized fiber or other suitable insulating material. Depending from the insulating block is a loop-like hanger D held in place by bolts or other suitable means, and a feed-wire branch E is shown extended through the hanger transverse of the same, said wire being returned on itself.

Pivotally connected to the ends of the yoke B to extend toward the hanger D are elbow-blocks F of insulating material, and bent metal plates G are made fast to said blocks to form stirrups for sections H of a trolley-wire. The trolley-wire sections are clamped in their stirrups by screws I engaging the elbow-blocks and meeting ends of said sections lap each other on the feed-wire branch above specified to thereby complete the circuit.

As a matter of preference, I employ spiral-springs J in connection with the yoke B and elbow-blocks F pivoted thereto, these springs being under tension when said blocks are in normal position or in other words with their

major portions horizontal and below the pivots. The trolley-wire being in sections and hung in the manner set forth there will be a tilt of at least one of the elbow-blocks F in case said wire is fractured and thus the circuit will be broken, this result being assured by the pull of the spring attached to said block.

While I have shown the trolley-wire sections in contact with feed-wire branches, my invention is just as applicable in those electric railway systems that do not employ a feed-wire, but depend on the trolley-wire to conduct the current, and it will be readily understood from the foregoing that no injury will result to man or beast coming into contact with a broken section of said trolley-wire, inasmuch as the same is dead the instant the break occurs.

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

1. In an electric railway system, the combination of a suspended yoke, an insulated hanger central of the same, insulators pivoted to the ends of the yoke, and trolley-wire sections secured to these pivotal insulators to normally lap each other in the insulated hanger, substantially as set forth.

2. In an electric railway system, the combination of a suspended yoke, an insulated hanger central of the same, insulators pivoted to the ends of the yoke, a spring under tension between each pivotal insulator and said yoke, and trolley-wire sections secured to the pivotal insulators to normally lap each other in the insulated hanger, substantially as set forth.

3. In an electric railway system, the combination of feed-wire branches, a trolley-wire comprising a series of meeting sections lapping each other on the feed-wire branches, and pivotal supports for the trolley-wire sections, substantially as set forth.

4. In an electric railway system, the combination of insulated hangers, feed-wire branches extending through the hangers transverse of the same, a trolley-wire comprising a series of meeting sections lapping each other on the feed-wire branches, and pivotal supports for the trolley-wire sections, substantially as set forth.

5. In an electric railway system, the com-

5 bination of suspended yokes centrally provided with insulated hangers, feed-wire-branches run through the hangers transverse of the same, insulators pivoted to the yoke-ends, and a trolley-wire comprising a series of sections joined to the pivotal insulators to lap each other on the feed-wire branches, substantially as set forth.

10 6. In an electric railway system, the combination of suspended yokes, centrally provided with insulated hangers, feed-wire branches run through the hangers transverse of the same, spring-controlled insulators piv-

oted to the yoke ends and a trolley-wire comprising a series of sections joined to the pivotal insulators to lap each other on the feed-wire branches, substantially as set forth. 15

In testimony that I claim the foregoing I have hereunto set my hand, at Milwaukee, in the county of Milwaukee and State of Wisconsin, in the presence of two witnesses. 20

S. HOENINGER.

Witnesses:

H. G. UNDERWOOD,
HENRY DANKERT.