

F. T. COPE.
TROLLEY CONTACT.

APPLICATION FILED SEPT. 21, 1911.

1,027,103.

Patented May 21, 1912.

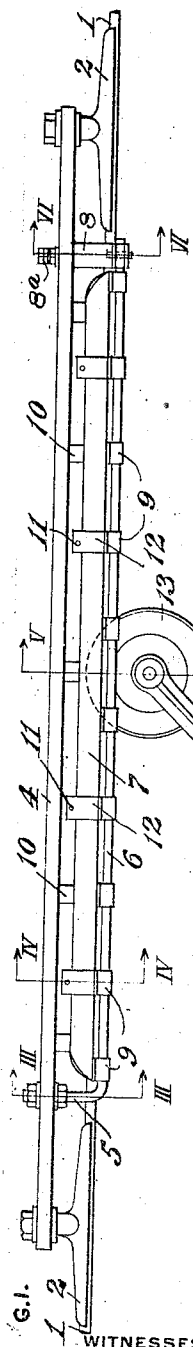


FIG. 1.

WITNESSES

D. E. Gaither.

Lois Wineman.

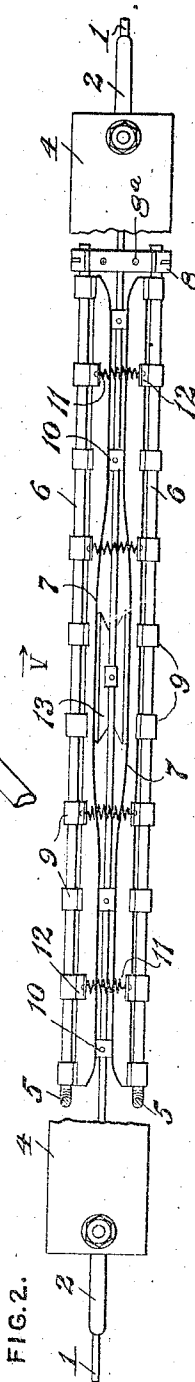


FIG. 2.

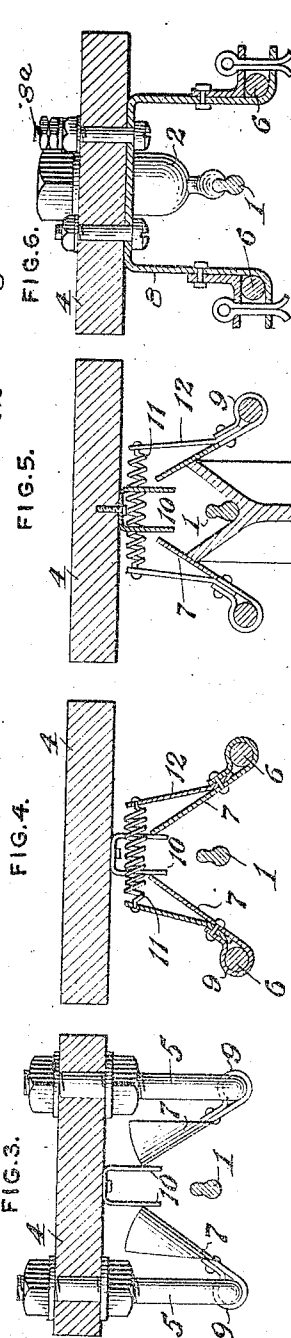


FIG. 3.

FIG. 4.

FIG. 5.

FIG. 6.

INVENTOR

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TROLLEY-CONTACT.

1,027,103.

Specification of Letters Patent.

Patented May 21, 1912.

Application filed September 21, 1911. Serial No. 650,522.

To all whom it may concern:

Be it known that I, FRANK T. COPE, of Alliance, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Trolley-Contacts, of which the following is a specification.

An object of my invention is to provide a new and improved contacting device for use with trolley systems of electric railways for operating signals, or other translating devices, by means of a current passed through the contact from the trolley-wire.

A further object of the present invention is to provide simple and efficient means particularly adapted for cars running at a high rate of speed and of such a character that the contact with the trolley-wheel will produce the slightest shock possible, thereby eliminating serious troubles heretofore encountered.

In the accompanying drawing, which illustrates an application of my invention, Figure 1 is a side elevational view of a trolley contacting device constructed in accordance with my invention, shown in connection with a trolley-wire; Fig. 2, a diagrammatic plan; Fig. 3, a part end view and a part sectional view, the section being taken on line III—III of Fig. 1; Fig. 4, a vertical sectional view taken on line IV—IV of Fig. 1; Fig. 5, a sectional view taken on line V—V of Fig. 1; and Fig. 6, a sectional view taken on line VI—VI of Fig. 1.

Referring to the drawing, 1 designates a trolley-wire secured to and supported by ears 2 in the usual manner. Extending longitudinally of the trolley-wire and supported by the same suspension means as support the trolley-wire is an insulating support 4. Support 4 is preferably made of wood, although it is obvious that some other insulating material may be employed in place of wood.

Secured to the insulating support 4, I provide a pair of metallic rods each having a vertically extending depending portion 5, and a longitudinally extending portion 6. The vertically extending portion of the respective rods is projected up through the support 4 and secured thereto by nuts, as particularly shown by Fig. 3. These metallic rods, or the longitudinally extending portions 6 thereof are located in a lower horizontal plane than the trolley-wire 1, and are adapted to support a pair of flexible contact strips 7 disposed on both sides of the

trolley-wire. The opposite ends of the rods 5—6 are supported by a metallic bracket 8 secured to and depending from the support 4, as particularly shown by Fig. 6. One of the bolts as 8^a, may be employed as a connection between the bracket and a wire (not shown) leading to a signaling device.

As illustrated and as preferred, the flexible contact strips 7 are made of some suitable thin sheet metal and are each provided on its lower edge with a series of engaging members 9, said members 9 being adapted to be bent around the respective longitudinally extending rods, as particularly shown by the sectional views Figs. 4 and 5. Strips 7 are loosely mounted on the respective rods with the lower edges in a horizontal plane considerably below the plane of the trolley-wire on said rods. As illustrated, these thin yielding contact strips are inclined toward each other and have their upper inner edges resting upon metallic spreaders or stops 10.

Located at intervals along the strips 7, I provide springs 11, the latter being designed to control the movement of the strips. Springs 11 are preferably supported on light supporting members 12 secured to and projecting upwardly from the contact strips or members 7.

13 designates the trolley-wheel which is adapted to enter between the contact strips and make positive frictional contact therewith spreading the movable and flexible strips during the passage of the wheel through the contact device in a manner particularly shown in the diagrammatic view.

What I claim is:

1. The combination with a trolley-wire, of a contacting device including a metallic rod having a longitudinally extending portion disposed in a plane lower than the trolley-wire, and a bodily movable and flexible contacting strip loosely connected at its lower edge with the rod in a horizontal plane below the trolley wire.

2. The combination with a trolley-wire, of a contacting device including a longitudinally extending insulating support, a pair of metallic rods each having a longitudinally extending portion disposed in a plane lower than the trolley-wire, a pair of bodily movable and flexible contact strips each respectively loosely connected at its lower edge with a rod in a horizontal plane below the trolley-wire.

3. The combination with a trolley-wire,

of a contacting device including a longitudinally extending insulating support, a pair of metallic rods each having a longitudinally extending portion disposed in a plane lower than the trolley-wire, and a pair of spring-controlled bodily movable and flexible contact strips each loosely connected with one of the rods in a horizontal plane below the trolley-wire.

4. The combination with a trolley-wire, of a contacting device including a longitudinally extending insulating support, a metallic rod secured at one end to the insulating support and having a longitudinally extending portion disposed in a plane lower than the trolley-wire, a bracket at the opposite end of the insulating support for supporting the opposite end of the longitudinally extending rod, and a bodily movable and flexible contacting strip loosely connected with the rod in a horizontal plane below the trolley-wire.

5. The combination with a trolley-wire, of a contacting device including a longitudinally extending insulating support, a pair of longitudinally extending metallic rods, a pair of bodily movable contact strips each pivotally secured at its lower edge to one of the rods, said strips inclined toward each other, and a member located between the upper free ends of the strips.

6. The combination with a trolley-wire, of a contacting device including a pair of longitudinally extending metallic rods, a pair of bodily movable contact strips each respectively loosely connected with one of the rods, said strips having their upper ends free and inclined toward each other, a metallic member interposed between the upper free ends of the contact strips, and a spring connecting said strips.

In testimony whereof I affix my signature in presence of two witnesses.

FRANK T. COPE.

Witnesses:

H. H. EMMERT,
RICHARD JAMES.