

(No Model.)

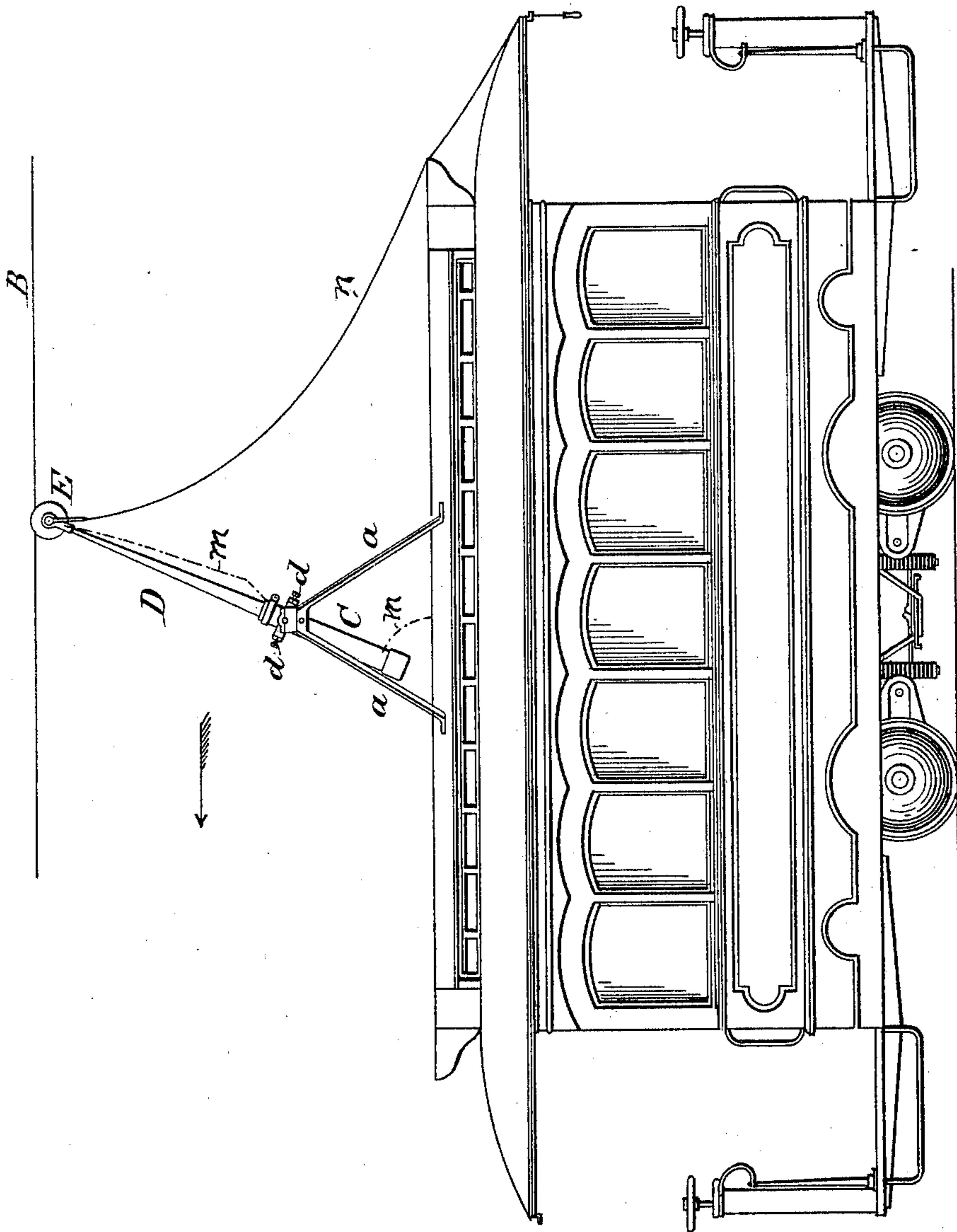
3 Sheets—Sheet 1.

E. R. POMMER.
CONTACT DEVICE FOR ELECTRIC RAILWAYS.

No. 592,596.

Patented Oct. 26, 1897.

Fig. 1.



WITNESSES:

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(No Model.)

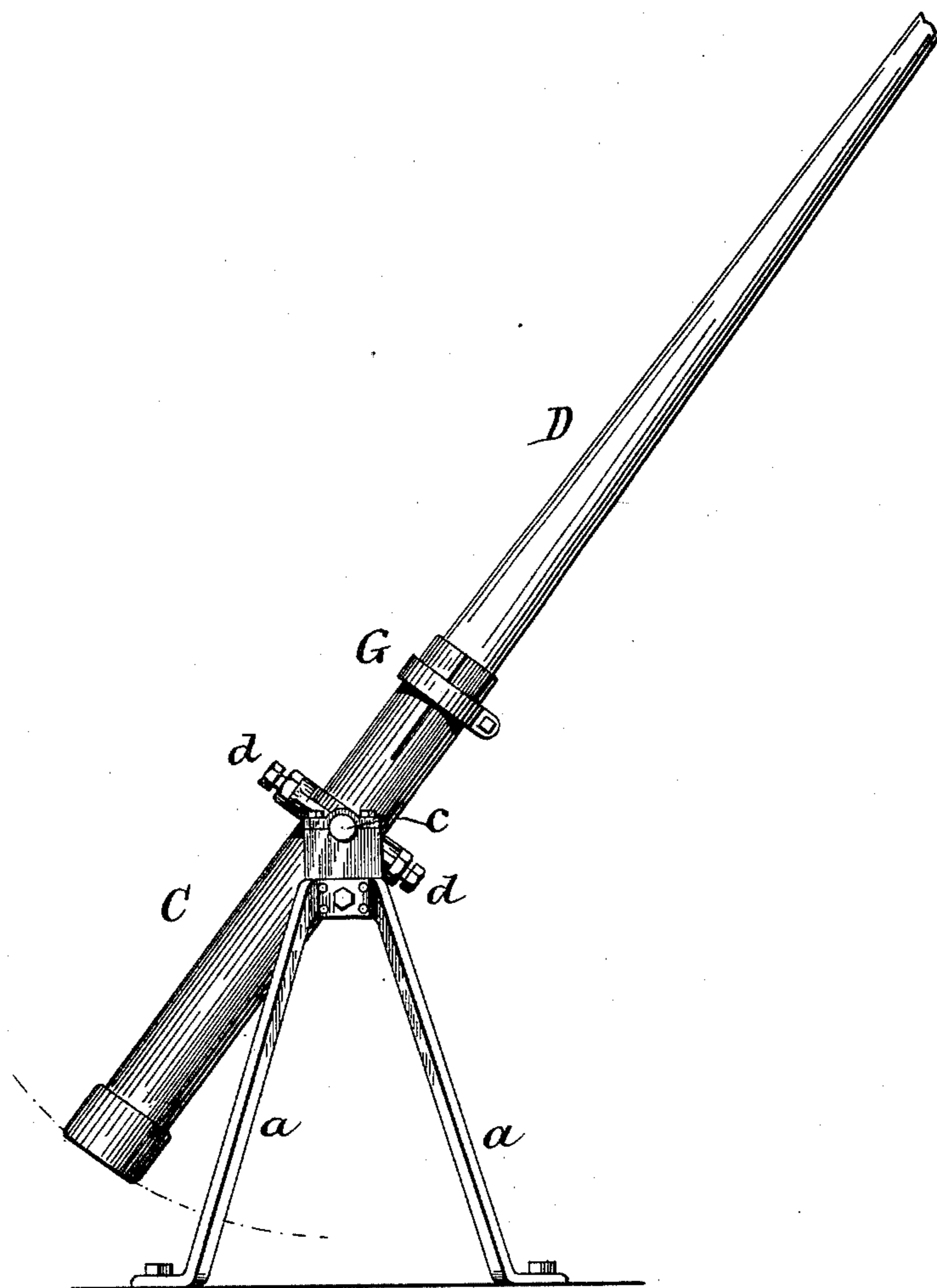
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E. R. POMMER.
CONTACT DEVICE FOR ELECTRIC RAILWAYS.

No. 592,596.

Patented Oct. 26, 1897.

Fig. 2.



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E. R. POMMER.
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Fig. 3.

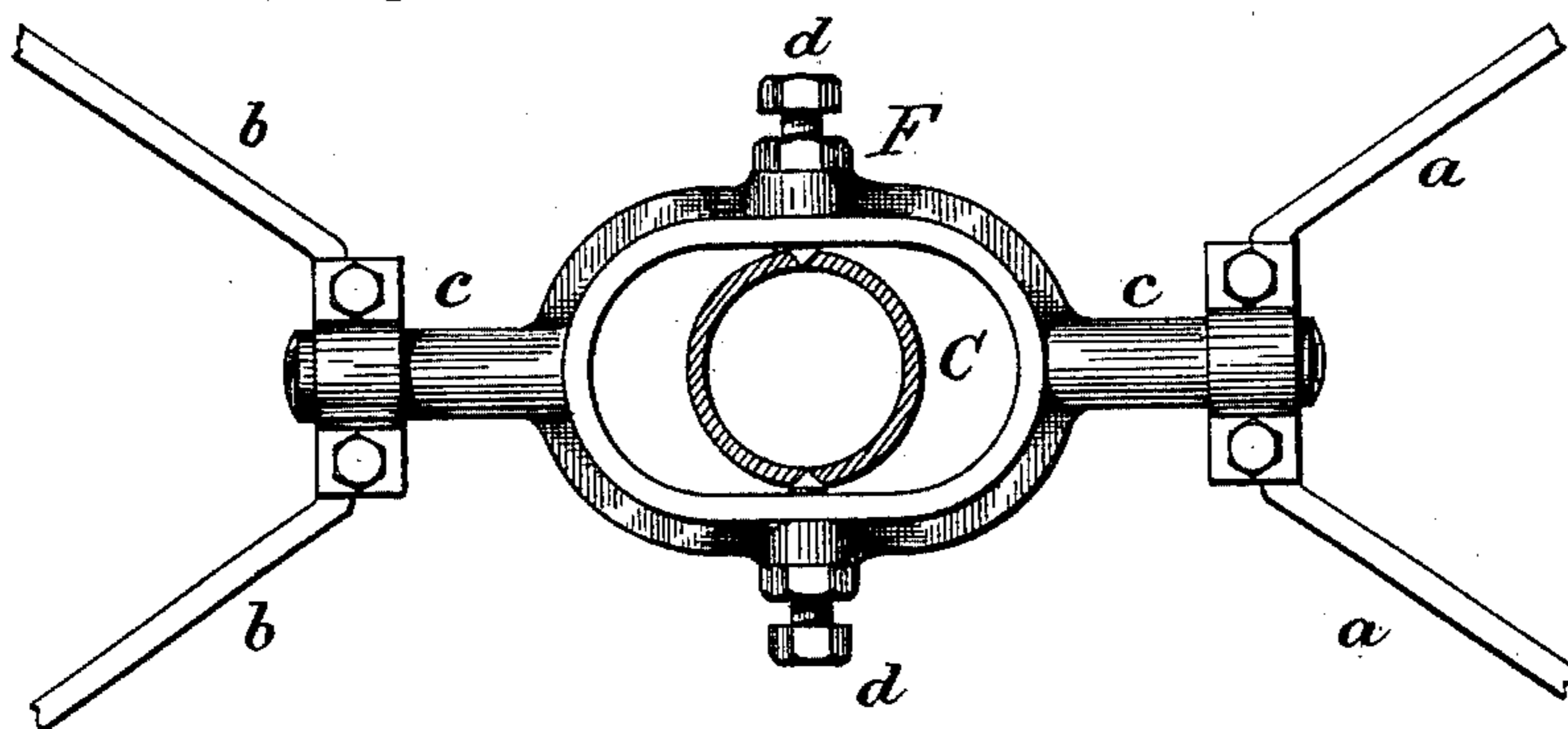


Fig. 4.

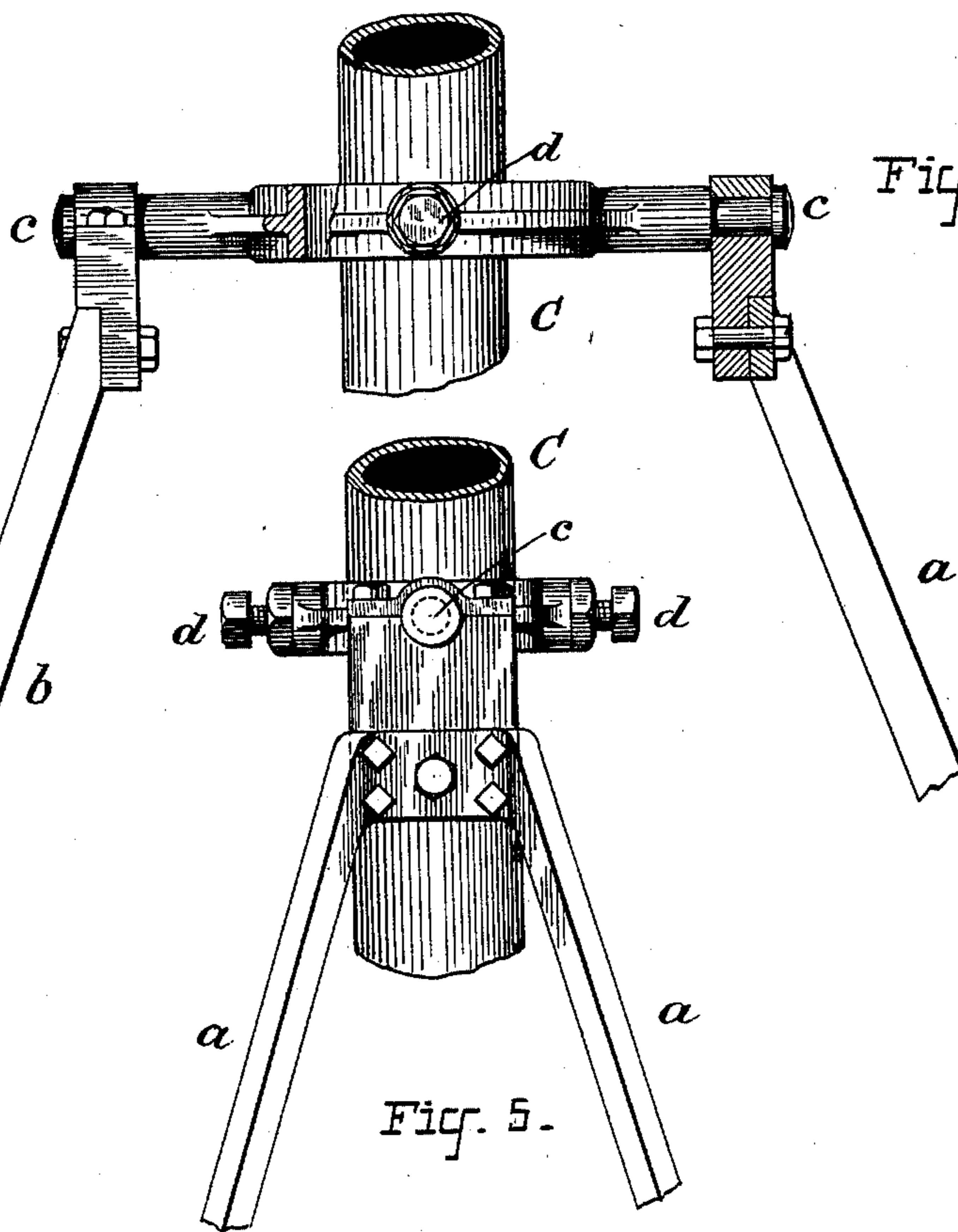


Fig. 5.

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UNITED STATES PATENT OFFICE.

EUGENE R. POMMER, OF NEW YORK, N. Y., ASSIGNOR TO THE SPRAGUE
ELECTRIC RAILWAY AND MOTOR COMPANY, OF SAME PLACE.

CONTACT DEVICE FOR ELECTRIC RAILWAYS.

SPECIFICATION forming part of Letters Patent No. 592,596, dated October 26, 1897.

Application filed November 20, 1888. Serial No. 291,364. (No model.)

To all whom it may concern:

Be it known that I, EUGENE R. POMMER, a citizen of the United States, residing at the city of New York, in the county and State of New York, have invented certain new and useful Improvements in Contact Devices for Electric Railways, of which the following is a specification.

The object of my invention is to provide a simple and effective construction for the supports of the contact devices in electric railways, wherein such contact devices are arranged to make a traveling underneath contact with a conductor placed overhead.

In carrying my invention into effect I employ an open standard on the roof of the car on which I support a long arm which carries at its upper end the trolley or traveling contact-wheel. I attach this arm to the standard by means of a universal joint, which permits the arm to rock lengthwise of the car, whereby its position can be changed when the direction of movement of the car is changed, and also to rock transversely of the car, whereby sufficient movement is allowed to permit of the trolley maintaining contact with the line when the car passes around curves or when there are irregularities in the line.

Another feature of my invention consists in weighting the lower or short end of the pivoted arm so that it overbalances the upper end and holds the trolley firmly against the wire. I prefer to make the lower portion of the pivoted arm of iron and the upper portion of wood.

My invention is illustrated in the accompanying drawings.

Figure 1 is a side elevation of an electric-railway car provided with a contact device embodying my invention; Fig. 2, a side view of the support for the trolley; Fig. 3, a top view of the standard with a section of the inclined pole; Fig. 4, a front view and a partial section of the upper portion of the standard, and Fig. 5 a side view of the same.

A is an electric-railway car which is provided with an electric motor for propelling it to which current is conveyed from the overhead wire B, the return circuit being preferably through the rails on which the car travels and

the earth. Upon the top of the car is placed a standard which consists of four branching legs *a a* and *b b*, which form a spider or open branching support for the trolley-pole.

The trolley-pole consists of a hollow iron sleeve C, in which is inserted a wooden pole D, on the upper end of which a contact-trolley, which is a grooved wheel E, is supported and makes an underneath contact with the wire B. The sleeve C is split at its upper end, and the pole D is held therein by a collar G, the two sides *a a* and *b b* of the standard having bearing for two short shafts *c c*, which extend on each side from an elliptical collar F. At the front and rear of the said collar set-screws *d d* pass through it, and the trolley-pole C is supported pivotally on the inner ends of the set-screws. It will be seen that the trolley-pole has a rocking movement longitudinal of the car on the shafts *c c*, whereby the inclination of the said pole can be changed when the direction of the movement of the car changes, and whereby the support adapts itself to changes in the elevation of the overhead line, and the trolley-pole is also capable of rocking transversely of the car on the set-screws *d d*, which permits the trolley to follow deviations from a straight line of the conductor or irregularities in the motion of the car.

Current is conveyed from the trolley to the motor by means of a suitable flexible insulated wire *m*, and a line *n* is attached to the top of the pole and extends to within reach of the person in charge of the car, so that the position of the pole may be readily controlled by such person.

The lower portion C of the trolley-pole, being made of iron, is much heavier than the wooden upper portion *d*, and such lower portion may be weighted in addition to this, if desired, the object being to overbalance the weight of the upper portion and so hold the trolley constantly pressed against the overhead wire.

By providing a branching support or standard for the trolley-pole I permit the swinging motions of such pole, since its lower end can swing between the legs of the standard without such standard forming any obstacle to its movement.

What I claim is—

1. The combination with an electric-rail-
way car, of a support on the roof of the car, an
arm attached to said support, bearings be-
5 tween said arm and support whereby said
arm is permitted to rock on either side of a
transverse axis and also on either side of a
longitudinal axis, and a contact device car-
ried by said arm for making an underneath
10 contact with a conductor, substantially as set
forth.

2. The combination with an electric-rail-

way car of a contact device for making con-
tact with an overhead conductor, a support
for said contact device pivoted on an axis 15
longitudinal to the car and a support for said
longitudinal axis pivoted to an axis transverse
to the car, substantially as set forth.

This specification signed and witnessed this
20th day of October, 1888.

EUGENE R. POMMER.

Witnesses:

H. W. SEELY,
WILLIAM PELZER.