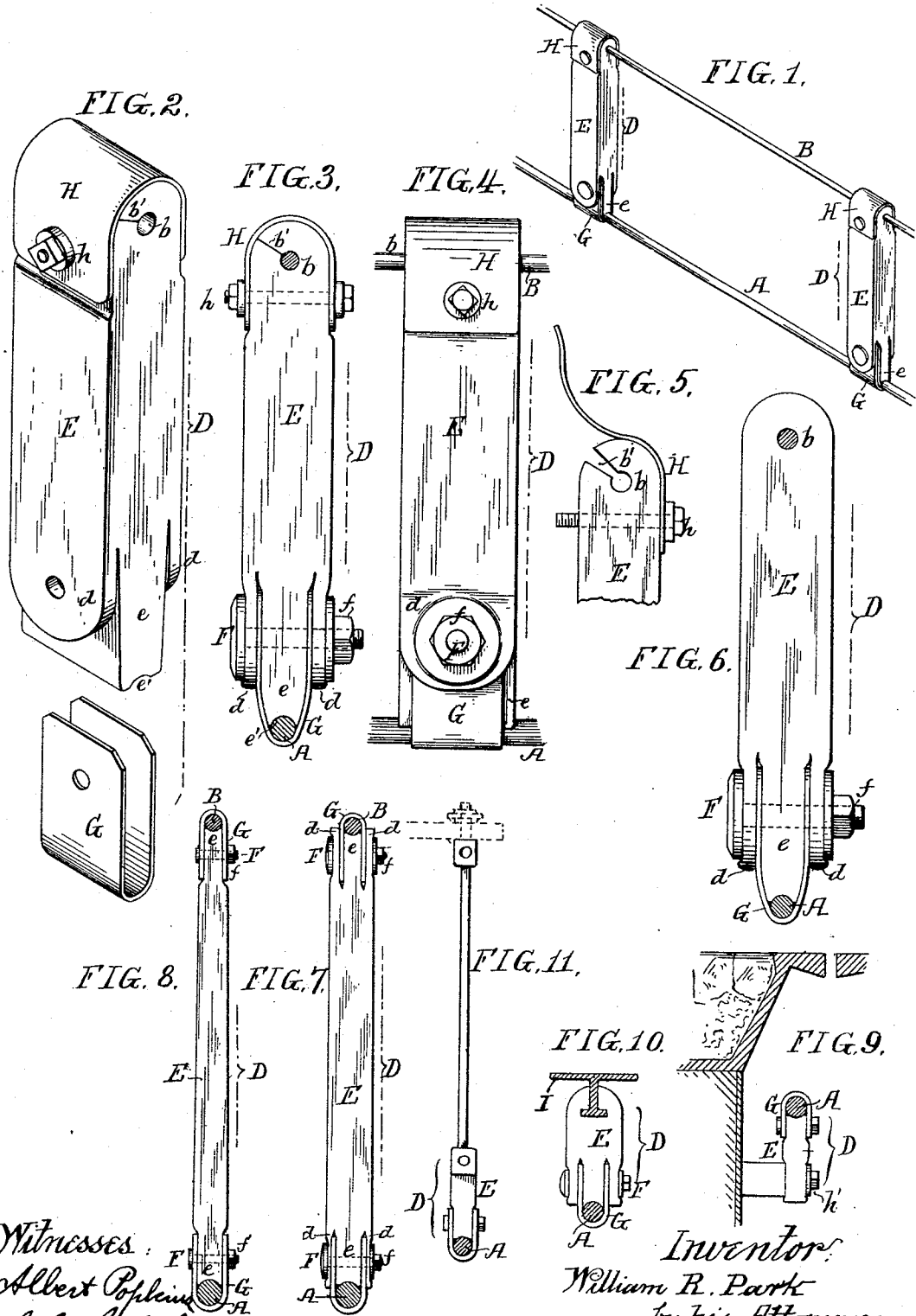


(No Model.)

W. R. PARK.  
INSULATING HANGER.

No. 416,122.

Patented Nov. 26, 1889.



Witnesses:  
Albert Popkin  
J. M. Conacher

Inventor:  
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# UNITED STATES PATENT OFFICE.

WILLIAM R. PARK, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF  
ONE-HALF TO CHARLES W. LEDIG, OF SAME PLACE.

## INSULATING-HANGER.

SPECIFICATION forming part of Letters Patent No. 416,122, dated November 26, 1889.

Application filed October 14, 1889. Serial No. 326,918. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM R. PARK, a citizen of the United States, and a resident of Philadelphia, Pennsylvania, have invented certain Improvements in Insulating-Hangers for Electric Wires, of which the following is a specification.

The object of my invention is to provide electric wires with suitable insulating-hangers that can be readily applied and will be rigid when in place as regards any longitudinal motion, but will allow the wire to vibrate under certain circumstances.

My invention is especially applicable to electrical railways. The hanger is applied to the supporting or guard wire and to the electric wire at intervals, thus supporting the said electric wire, but giving it sufficient free movement to allow for the running of the contact-trolley.

In the accompanying drawings, Figure 1 is a perspective view showing my improved insulating-hanger applied to an overhead electric-railway wire. Fig. 2 is a perspective view of the hanger. Fig. 3 is an end view. Fig. 4 is a side view. Fig. 5 is a diagram view; and Figs. 6, 7, 8, 9, 10, and 11 are views of different forms of the insulator.

Referring to Fig. 1, A is the electric wire of an electric railway.

B is the supporting or guard wire hung directly above the wire A.

D is the hanger by which the electric wire is suspended from the guard-wire. These hangers are secured to the wires at intervals throughout the entire line. Should the electric wire become severed at a point between the poles or other supports, the hangers will prevent the wire from falling to the ground.

Figs. 2, 3, 4, and 5 show the insulating-hanger in the form I prefer to construct it.

E is a block, of rubber or equivalent elastic material, having a central tongue *e* and side tongues *d d*. The lower edge of the tongue *e*, I prefer to form so as to conform with the shape of the electric wire. The tongues *e* and *d d* are perforated for the passage of a bolt F, having a nut *f*.

G is a strap, preferably made of metal, the ends of which are perforated for the passage

of the bolt F, so that when the strap is put around the wire, as shown in Fig. 3, and the bolt passed through the lips and the strap the electric wire will be supported by said strap. By screwing the nut *f* tightly upon the bolt, so as to compress the rubber, the rubber of the central tongue *e* will force itself upon the electric wire A, and, clamping said wire tightly between the tongue and the strap, preventing any longitudinal movement thereon. The tongues *d d*, being also compressed, bind upon the bolt and nut, preventing the nut from backing off.

I form an eye *b* in the upper end of the hanger for the wire B, and I slit the block at *b'* and place a strap H around the upper portion of the hanger, and secure said strap to the block by a bolt *h*. I split this block, so as to form an open eye *b*, to permit the hanger to be strung upon the supporting or guard wire after the guard-wire is in position. In some cases the hanger can be slipped upon the guard-wire, and when this is the case I form the block with a simple opening or eye *b*, Fig. 6.

In place of the band and split eye, as shown in Fig. 2, I may duplicate the tongues *e* and *d d* and strap G at the opposite end, as shown in Fig. 7.

In Fig. 8 I have shown a hanger in which the tongues *d d* are dispensed with, a plain elastic block being used. The band G passes around the wire and is secured to the elastic block by a bolt F. Pressure being applied will force the tongue *e* of the elastic block against the wire in the same manner as that shown in Fig. 3.

In Fig. 9 I have shown the hanger in connection with underground conduits for electric railways or for other electrical purposes, the block being secured to a bracket in the conduit by a bolt *h'*, the guard-wire being dispensed with in this case.

In Fig. 10 I have shown a hanger provided with a simple attaching-plate I, preferably cast or otherwise formed in the elastic block.

In some instances the hanger may be attached to an extension-rod, as shown in Fig. 11, and may be pivoted thereto or fastened rigidly, as the case may be.

I claim as my invention—

1. The combination, in a hanger for electric wires, of a block having an elastic tongue with a strap adapted to be passed around an electric wire, and a device for securing the strap to the block and compressing the tongue, substantially as and for the purpose set forth.
2. The combination of an elastic block having the central tongue *e*, side tongues *d d*, with a strap G, adapted to pass around the wires, and a bolt adapted to secure the block to the strap, substantially as described.
3. The combination of a block having a tongue at one end and a split eye at the opposite end with a strap adapted to pass over

and close the split eye and a strap adapted to said tongue, substantially as set forth.

4. The combination of a hanger for electric wires, having at one end an eye for the passage of the supporting-wire, and a tongue at the opposite end, with a band adapted to be passed around the electric wire and secured to said tongue, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM R. PARK.

Witnesses:

WILLIAM D. CONNER,  
HENRY HOWSON.