

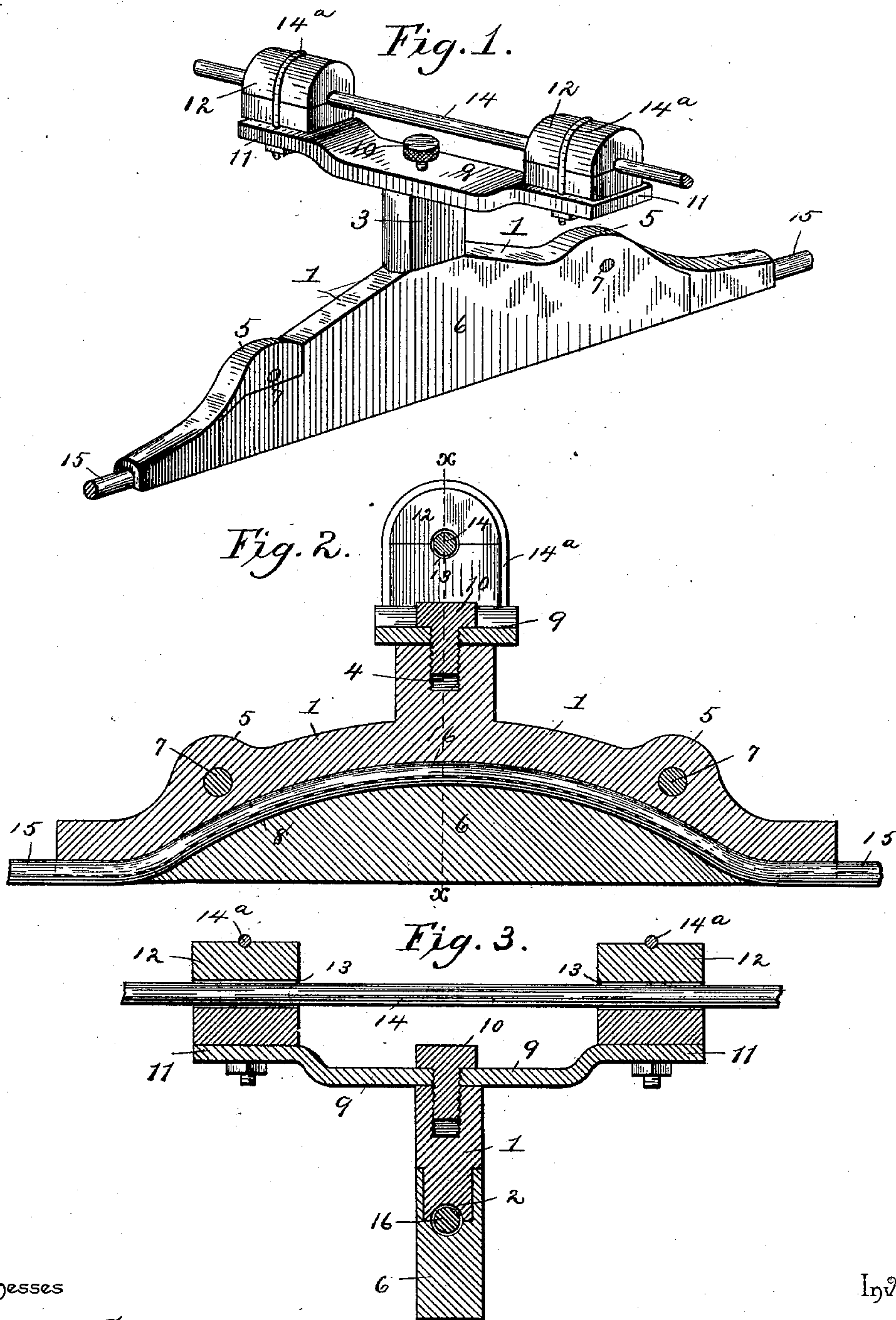
(No Model.)

H. I. PIERCE.

DEVICE FOR SUSPENDING ELECTRIC CONDUCTORS.

No. 429,058.

Patented May 27, 1890.



Witnesses

Harry L. Amer.  
Wm. Baggett

By his Attorneys,

Homer I. Pierce.

C. A. Snow & Co.



# UNITED STATES PATENT OFFICE.

HOMER IRVING PIERCE, OF LYNN, ASSIGNOR OF ONE-HALF TO HARRY L. PIERCE, OF LEOMINSTER, MASSACHUSETTS.

## DEVICE FOR SUSPENDING ELECTRIC CONDUCTORS.

SPECIFICATION forming part of Letters Patent No. 429,058, dated May 27, 1890.

Application filed January 28, 1890. Serial No. 338,352. (No model.)

*To all whom it may concern:*

Be it known that I, HOMER IRVING PIERCE, a citizen of the United States, residing at Lynn, in the county of Essex and State of Massachusetts, have invented a new and useful Device for Suspending Electric Conductors for Electric Railways, of which the following is a specification.

This invention relates to devices for suspending electric conductors for electric railways; and it has for its object to construct a device of this class by means of which the conducting-wire may be suspended in a safe and efficient manner, and which shall afford a continuous smooth track, over which the trolley may pass without danger of jumping the wire or sparking.

The invention consists in the improved construction, arrangement, and combination of parts, which will be hereinafter fully described, and particularly pointed out in the claims.

In the drawings hereto annexed, Figure 1 is a perspective view of my improved suspending device. Fig. 2 is a longitudinal vertical sectional view of the same. Fig. 3 is a vertical transverse sectional view taken on the line *x x* in Fig. 2.

Like numerals of reference indicate like parts in all the figures.

1 designates a curved or arched frame, which is provided in its under side with a longitudinal groove 2, of proper dimensions to accommodate a conducting-wire of the size which is usually employed. The said frame is provided with an upwardly-extending shank 3, which is provided with a female threaded recess 4, to receive a connecting-screw, as will be presently described. The frame 1 is also provided on its upper side with transversely-perforated ears 5 5, which are located near the ends of said frame.

6 designates a clasp, which is U-shaped in cross-section, so as to fit against the sides of the frame 1, with which it may be connected by means of bolts 7, passing transversely through the said clasp and through the perforated lugs 5. The clasp 6 is provided on its upper or inner side with a groove 8, corresponding with the groove 2 in the frame 1, and the central portion of the said U-shaped

clasp is made much thicker than the ends to which it gradually tapers, so as to correspond with the arched shape of the frame 1.

9 designates a cross-piece, which is secured transversely to the upper end of the shank 3 by means of a screw or bolt 10. The ends of the cross-piece 9 are bent slightly in an upward direction, and are flattened, as shown at 11, to support the insulators 12. The latter are constructed each in two separate pieces or sections, the meeting faces of which are grooved longitudinally, as shown at 13, for the purpose of accommodating the supporting-wire 14. The said insulators are secured to the cross-piece 9 by means of clips 14<sup>a</sup>, or by twisted wires, or in any other suitable manner.

15 designates the conducting-wire, which is provided with a bent or arched portion 16, adapted to fit in the arched groove provided for its reception in the supporting device. This arched or bent portion may be readily formed upon the wire at the proper point by means of a suitably-constructed bending-tool, which, however, is no part of my invention.

The operation and advantages of my improved supporting device will be readily understood from the foregoing description, taken in connection with the drawings hereto annexed. The device is mounted by means of the insulators 12 upon the supporting-wire, which extends transversely across the street in the usual manner above the car-track. The conducting-wire, having been provided at the proper point with the bent or arched portion 16, is mounted in the hanger, and the device is then ready for use. It will be observed that the clasp 6 is tapered to sharp edges at both ends, which are preferably flush with the conducting-wire. It follows that the trolley will be enabled to pass smoothly over the supporting device without danger of jumping the wire.

It is obvious that the frame 1 and the clasp 6 of the device are to be constructed of conducting material, such as brass or copper. The insulators 12 may be constructed of glass, porcelain, or any other suitable material.

Having thus described my invention, what I claim is—

1. In a supporting device for electrical con-



ductors, the combination, with an arched frame, grooved to receive the electrical conductor, of the U-shaped clasp having a thickened central portion to correspond with the 5 arched portion of the frame, substantially as set forth.

2. The combination, with the arched frame, grooved in the under side to receive the conducting-wire, of the U-shaped shield or clasp, 10 having thickened central portion, tapered to sharp edges at both ends, and grooved interiorly to receive the conducting-wire, substantially as set forth.

3. The combination of the arched frame, 15 grooved in its under side, the U-shaped shield or clasp having the thickened central portion, and the conducting-wire having the bent or arched portion to correspond with the shape of the arched frame of the supporting device, 20 substantially as set forth.

4. The combination of the supporting-frame, having the upwardly - extending shank, the supporting-plate provided at its ends with the

insulators, and a screw or bolt connecting said frame and plate, extending through the latter into the shank of the former, substantially 25 as set forth.

5. The combination of the arched frame, grooved in its under side to receive the supporting - wire and having an upwardly - extending shank, the U-shaped shield, the trans- 30 verse supporting-plate, the insulators mounted upon the ends of the latter, each of said insulators being composed of two separate parts grooved longitudinally in their meeting faces, 35 and suitable connecting-bolts, all arranged and operating substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in 40 presence of two witnesses.

HOMER IRVING PIERCE.

Witnesses:

DAVID ROBINSON,  
JENNIE ROBINSON.