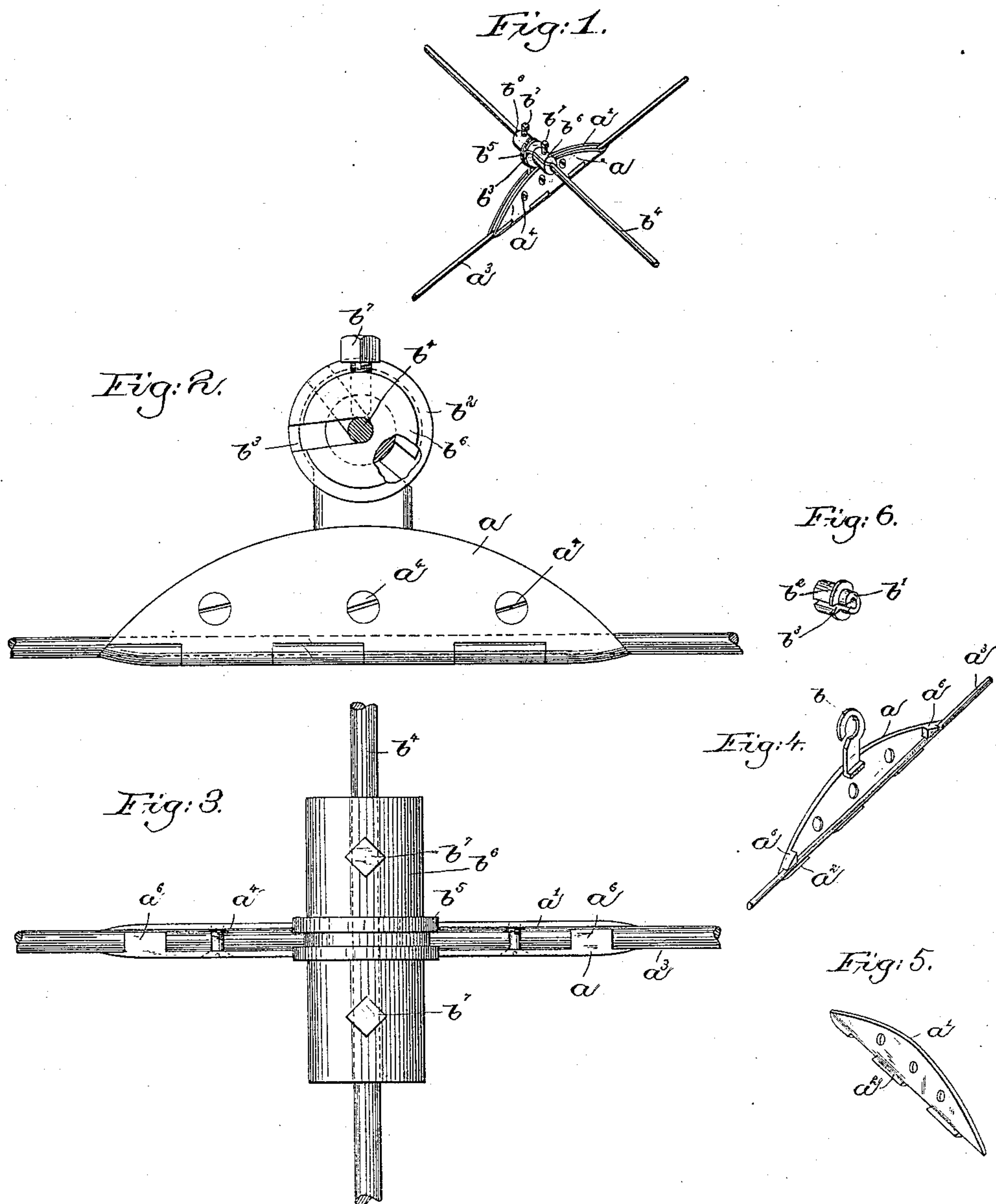


(No Model.)

A. L. HALLBAUER & E. L. HILLER.
SUPPORT FOR ELECTRIC WIRES.

No. 433,896.

Patented Aug. 5, 1890.



Witnesses,
Howard F. Eaton,
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UNITED STATES PATENT OFFICE.

ALBERT L. HALLBAUER AND EDWARD L. HILLER, OF LYNN,
MASSACHUSETTS.

SUPPORT FOR ELECTRIC WIRES.

SPECIFICATION forming part of Letters Patent No. 433,896, dated August 5, 1890.

Application filed November 30, 1889. Serial No. 332,126. (No model.)

To all whom it may concern:

Be it known that we, ALBERT L. HALLBAUER and EDWARD L. HILLER, both of Lynn, county of Essex, State of Massachusetts, have
5 invented an Improvement in Supports for Electric Wires, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

10 This invention has for its object to provide a novel hanger or support for overhead conductors, and is especially adapted to be used in connection with the trolley-wire of the overhead system of electric railways.

15 In accordance with our invention the trolley-wire hanger or support is made as a clamp, preferably in two pieces or jaws, having suitable curved lugs or ears, which pass under and about the trolley-wire, so that when the
20 said pieces or jaws are fastened together, as by screws, the trolley-wire rests upon a firm support and is firmly clamped between the said jaws, thereby preventing the trolley-wire from falling at their points of suspension. The hanger or support is provided
25 with a hooked arm or upright adapted to engage a span-wire, and the said hanger is secured in place upon the said span-wire, but insulated therefrom by disks of insulating
30 material fastened to the span-wire.

Our invention therefore consists of a trolley-wire support or hanger composed of two pieces or jaws having lugs to extend under and embrace the trolley-wire, and lugs to prevent the said wire from lifting upward, and
35 means to fasten the said jaws together to hold the wire between them, substantially as will be described.

Other features of our invention will be
40 pointed out in the claims at the end of this specification.

Figure 1 represents a sufficient portion of a trolley-wire sustained by our improved hanger or support to enable our invention to be understood; Fig. 2, a side elevation, on an enlarged scale partially broken out, of the
45 hanger or support shown in Fig. 1; Fig. 3, a top or plan view of the hanger or support shown in Fig. 2; Figs. 4 and 5, details to more
50 clearly show the construction of the hanger or support, and Fig. 6 a detail to be referred to.

The hanger or support consists of two pieces or jaws $a a'$, each provided with lugs or ears a^2 , which extend under and support the trolley-wire a^3 , when the said pieces or
55 jaws are fitted and secured together, as by screws a^4 . The piece or jaw a is provided at its opposite ends with lugs a^6 , between which and the ear a^2 of the said jaw the trolley-wire a^3 is extended, the lugs a^6 preventing the
60 trolley-wire from being lifted upward.

The hanger or support may be provided, as herein shown, with an upright arm having at its end a hook b , which in practice is fitted upon the hub b' of the disk b^2 of insulation,
65 the said disk and hub being provided with a slot b^3 , by which the said disk is placed upon the span-wire b^4 . The hub b' of the disk b^2 , as herein shown, has also mounted upon it a like slotted disk b^5 , and the disks $b^2 b^5$ are
70 provided, as herein shown, on their outer side with extended hubs b^6 , which are fastened to the span-wire b^4 by set-screws b^7 .

In practice the set-screws b^7 are unscrewed, so as to permit the disks $b^2 b^5$ to be turned so
75 that the slots b^3 of the said disks will register with the slot of the hook b , so that the hanger may be readily slipped upon or engage with the span-wire, and thereafter the disks $b^2 b^5$ may be turned so as to bring their slots b^3
80 out of line with the slot of the hook—as, for instance, into the position shown in Fig. 2, and secured in such position by the set-screws b^7 . It will thus be seen that the hanger is insulated from the span-wire and has a pivotal
85 movement upon the same.

The trolley-wire is firmly clamped between the jaws $a a'$ of the hanger, and is secured positively without the use of solder, and is prevented from falling at the points of sus-
90 pension.

We have herein shown one method of suspending the clamping-jaw from the span-wire, but we do not desire to limit ourselves to the particular manner shown, as the said clamp-
95 ing-jaws may be suspended in any other or usual manner.

We claim—

1. A trolley-wire support or hanger composed of two pieces or jaws $a a'$, having lugs
100 a^2 to extend under and embrace the trolley-wire, and with lugs a^6 to prevent the said

wire from lifting upward, and means to fasten the said jaws together to hold the wire between them, substantially as described.

2. The combination, with a span-wire, of a
5 trolley-wire, a hanger or support therefor consisting of two jaws or pieces provided with lugs to extend under the said trolley-wire, a slotted disk mounted upon said span-wire, and means to secure said hanger to the said
10 disk, substantially as described.

3. The combination, with a span-wire, of a trolley-wire, a hanger or support for said trolley-wire, consisting of two jaws or pieces pro-

vided with lugs to extend under the said trolley-wire, means to unite said jaws, and an insulator interposed between the said jaws and the span-wire, substantially as described. 15

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

ALBERT L. HALLBAUER.
EDWARD L. HILLER.

Witnesses:

JAS. H. CHURCHILL,
E. J. BENNETT.