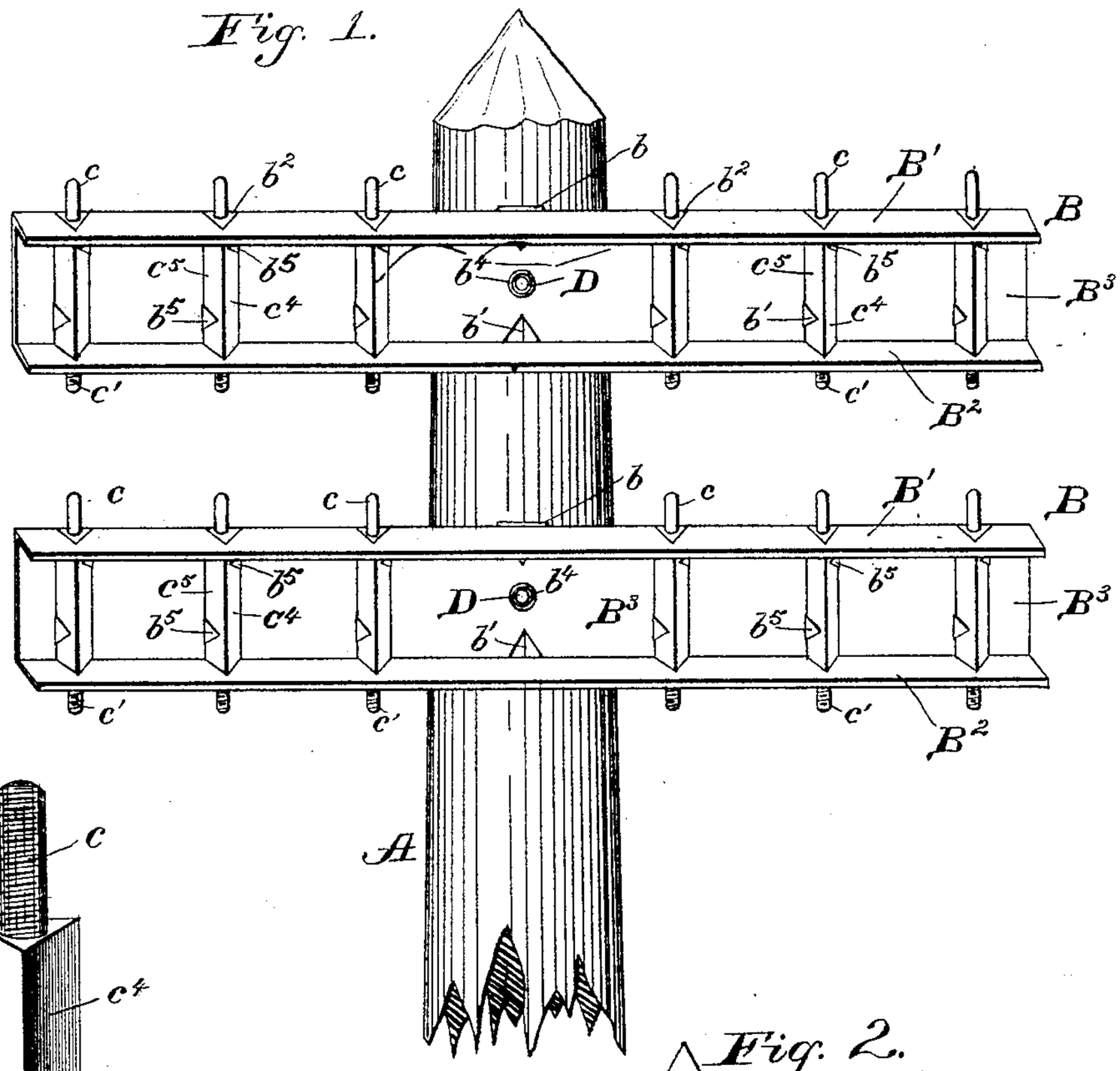
(No Model.)

J. LEVY.

CROSS TREE FOR SUSPENDED ELECTRIC WIRES.

No. 462,564. Patented Nov. 3, 1891.

Fig. 1.



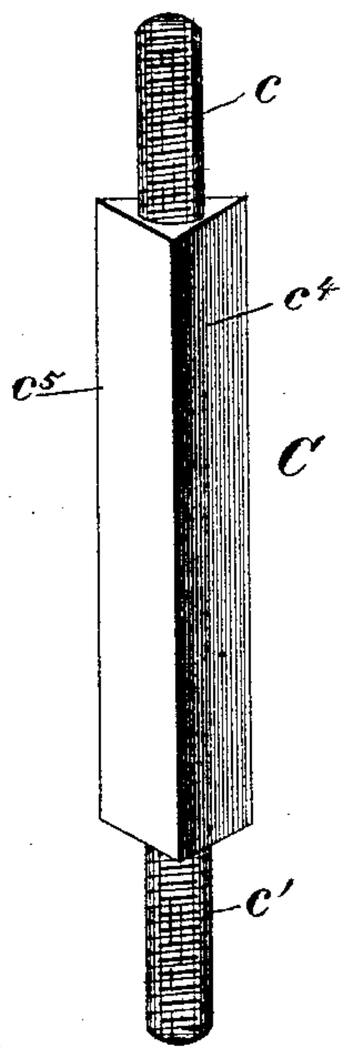


Fig. 4.

Fig. 2.

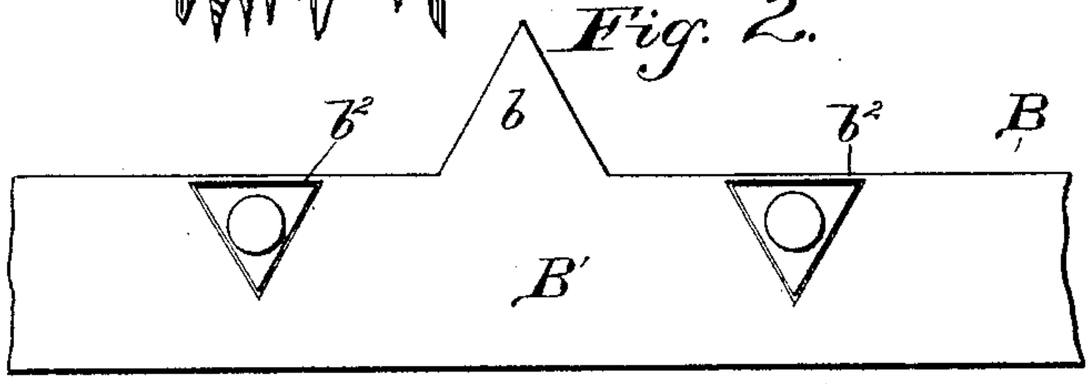
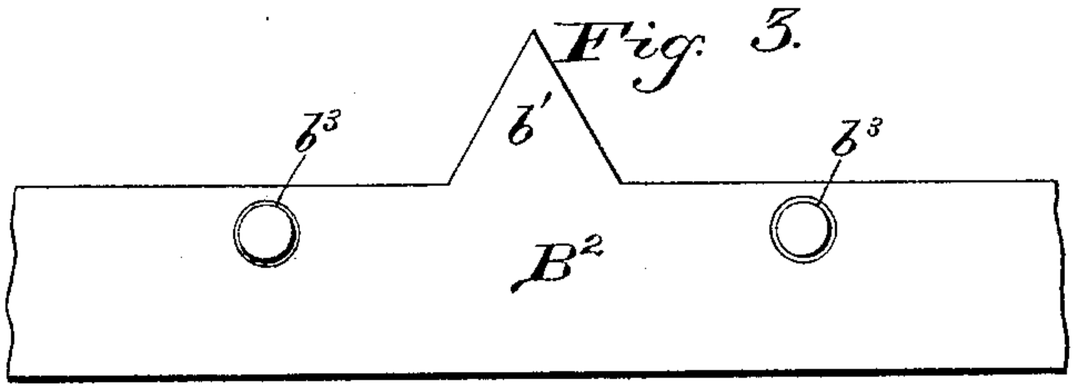


Fig. 3.



Witnesses;
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UNITED STATES PATENT OFFICE.

JACOB LEVY, OF SHREVEPORT, LOUISIANA.

CROSS-TREE FOR SUSPENDED ELECTRIC WIRES.

SPECIFICATION forming part of Letters Patent No. 462,564, dated November 3, 1891.

Application filed August 7, 1891. Serial No. 402,055. (No model.)

To all whom it may concern:

Be it known that I, JACOB LEVY, a citizen of the United States, residing at Shreveport, in the parish of Caddo and State of Louisiana, have invented certain new and useful Improvements in Cross-Trees for Suspended Electric Wires; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to cross-trees for telegraph-poles and suspended electric wires; and it consists of the novel construction and combination of parts, hereinafter described and claimed.

Reference is had to the accompanying drawings, wherein the same parts are indicated by the same letters.

Figure 1 represents a perspective view of a wooden telegraph-pole with two of the improved metallic cross-trees attached thereto. Fig. 2 represents a plan view of a portion of the top of one of the said metallic cross-trees. Fig. 3 represents a similar view of the bottom of one of the said cross-trees. Fig. 4 represents a perspective view of a modified form of one of the insulator-supports for the wire, differing from those shown in Figs. 1 and 2 only in the screw-thread being at both ends, and hence the device being reversible.

A represents the telegraph-pole, made, preferably, of wood.

B represents a cross-tree, made of a sheet of metal, bent in the form of a rectangular trough, turned on one side, and having a bottom B^3 and sides or flanges B′ and B^2. In the bottom of the trough, which when in place becomes the vertical wall B^3, the prongs b and b' are stamped out. The prongs b are bent at right angles to the plane of B^3, and are afterward driven into the wooden post when this forms an efficient holding device against unequal strains on the two arms of the cross-tree tending to twist the cross-tree out of line. The cross-tree is further secured to the pole by means of the bolt or spike D, passing through the hole b^4. Angular holes b^2 are cut in the upper flange B′ large enough to receive the central portion of the insulator-support C. The lower flange has a corresponding number of round holes b^3, adapted to receive either end c or c' of the said insulator-support. The vertical wall B^3 may have other prongs b^5 stamped therein, adapted to fit snugly against the beveled edges c^4 and c^5 of the insulator-support. These prongs b', while not sensibly weakening the cross-tree, are specially useful in holding the insulator-support C firmly in place and enabling it to stand the lateral strains due to bends in the line of telegraph or telephone wires. Nuts may also be used on the lower end c' of the insulator-support C to prevent the said support from being lifted out of its seat.

The method of using the device is as follows: The cross-trees are affixed to the poles by driving in the prongs b and then the spike or bolt D. The insulator-supports are then slipped in place, the nuts screwed on, if used, the insulators are put on, and the wires strung. By having two arms c and c' protruding from the cross-tree B it will be obvious that two insulators may be used on each support C, one resting on the top and the other screwed or otherwise fastened on the bottom arm of the said insulator-support. By having the insulator-support reversible, as in Fig. 4, the wear on the bottom screw may be obviated by turning the support C end for end. The cross-trees should preferably be made of rolled iron or steel. The supports C may be of wood or metal, but preferably of iron or steel.

I do not claim any particular form of insulator or any particular method of attaching the said insulator to its support; but

What I do claim, and desire to secure by Letters Patent of the United States, is—

1. In a system of insulating electric wires, the combination, with a pole, of a cross-tree attached thereto, said cross-tree being made of metal in the form of a rectangular trough and having angular holes in the upper flange thereof and smaller circular holes in the lower flange thereof, with insulator-supports adapted to pass wholly through said upper larger holes and partly through said lower smaller holes, substantially as described.

2. In a system of insulating electric wires, the combination, with a pole, of a cross-tree

attached thereto, said cross-tree being made of metal in the form of a rectangular trough and having triangular holes in the upper flange thereof and smaller circular holes in the lower flange thereof, with insulator-supports having triangular bodies with cylindrical arms at each end thereof, the said triangular body adapted to pass wholly through said upper larger hole and said lower arm adapted to fit in said lower and smaller hole, substantially as described.

3. In a system of insulating electric wires, the combination, with a pole, of a cross-tree made of metal in the form of a rectangular trough and having prongs stamped out near the center of the said cross-tree, the cross-tree being partially fastened to said pole by means of said prongs, substantially as described.

4. In a system of insulating electric wires, the combination, with the pole A, of the cross-tree B, having vertical wall B^3, flanges B' and B^2, prongs b and b', and holes b^2 and b^3, and the insulator-support C, having a triangular body with cylindrical arms c and c', substantially as and for the purposes described.

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

JACOB LEVY.

Witnesses:
CHAS. J. RANDALL,
GUS A. GUYNEMED.