(No Model.)

M. M. WOOD.

TROLLEY WIRE SUPPORT.

No. 527,920. Patented Oct. 23, 1894.

Fig. 1.

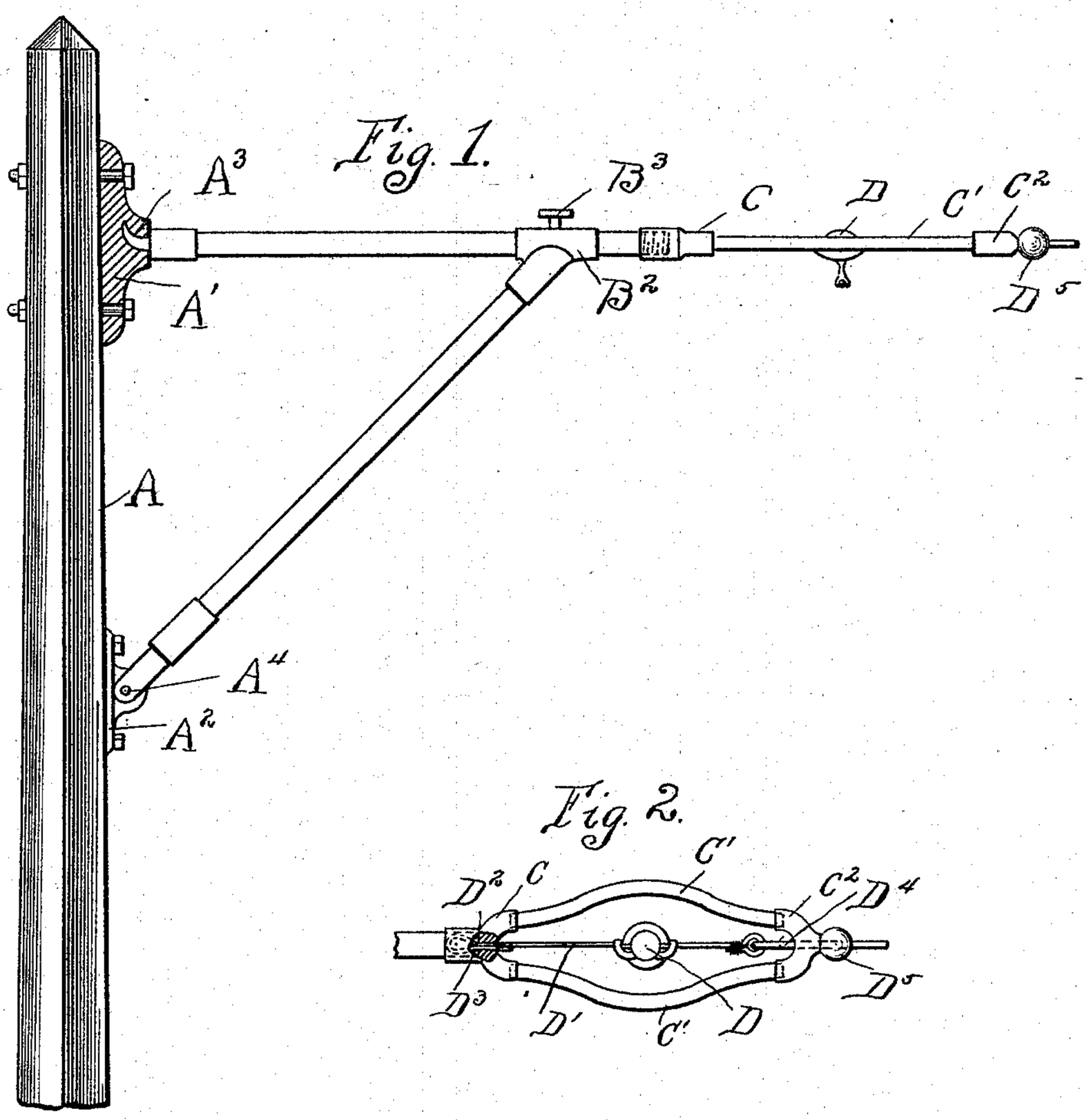

Fig. 2.

WITNESSES:
Hattie J. Gunthorp
Jno. A. Coulter.

INVENTOR,
Montraville M. Wood
By Bakewell & Parker,
ATTORNEY.

UNITED STATES PATENT OFFICE.

MONTRAVILLE M. WOOD, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE WALLACE ELECTRIC COMPANY, OF SAME PLACE.

TROLLEY-WIRE SUPPORT.

SPECIFICATION forming part of Letters Patent No. 527,920, dated October 23, 1894.

Application filed April 30, 1894. Serial No. 509,513. (No model.)

To all whom it may concern:

Be it known that I, MONTRAVILLE M. WOOD, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Trolley-Wire Supports, of which the following is a specification.

My invention relates to trolley wire supports and has for its object the production of an improved support of which the following is a description, reference being had to the accompanying drawings, wherein—

Figure 1 is a view of a pole with trolley support in position. Fig. 2 is a plan view showing span wire.

Like letters refer to like parts throughout both the figures.

A is the pole by which the bracket is supported and has attached to it the plates A′ A^2, to which are attached the bracket arm B and brace B′. The plate A′ is provided with a hook-shaped recess into which is inserted the hook A^3 on the end of the bracket arm B. Said hook holds the arm in position when the arm is horizontal. The brace B′ is attached to the plate A^2 in the ordinary manner by the bolt A^4. The brace casting B^2, to which is attached the brace B′, slides upon the bracket arm B and is provided with a set screw B^3 by which it may be held in any given position. On the end of the bracket arm B is attached a span wire support consisting as shown of a bifurcated casting C screwed onto the end of said arm, and having attached to its ends the curved arms C′ C′, the other ends of said arms being connected to the casting C^2. The hanger D is attached to the span wire D′. The bifurcated casting C has a hole near its center which connects with the opening D^2 at the back of the casting, into which the bracket arm B is inserted. The end of the span wire is passed through the hole in the casting C before said casting is attached to the arm B. Said wire is then bent over so as to form a loop D^3, and the free end pushed back through the hole. Said hole is just large enough to receive the two wires and hence will be too small to allow the loop D^3 to pass through, and the wire will be firmly held in place. The other end of the span wire is looped into the eye of the eyebolt D^4. Said eyebolt passes through a hole in the casting C^2 and is provided with the nut D^5 so that the span wire can be adjusted.

The several arms used in this support are made of hollow pipe or the like, so as to be as light as possible and still have the required strength.

It is evident that these several parts may be somewhat modified in construction and arrangement without departing from the spirit of my invention, and I therefore do not wish to be limited to the exact form shown.

The use and operation of my invention are as follows: The plates A′ A^2 may be attached to the poles at any time before or after said poles are in position. The bracket or support can be put up at any time, as all that is necessary in attaching said support to the plates is to place the bracket arm B at such an angle with the pole that the hook A^3 will slip into the opening in the plate A′. The bracket arm is then lowered until the pin A^4 can be inserted through the end of the brace B′ and the holes in the plate A^2. The distance of the trolley wire above the ground may be adjusted by changing the position of brace casting B^2 on the bracket arm B. The manner in which the span wire is attached allows it to be easily adjusted by turning the nut D^5. Said span wire affords a flexible support for the insulating hanger D, and thus the hammering effect produced by the trolley wheel in rigid construction is entirely avoided.

It is also evident that I may use the span wire support without the supporting bracket; as when the trolley wire is supported beneath bridges, elevated railway structures or the like. In this case the span wire support would be connected directly to the bridge or other structure.

In devices of the character herein alluded to there is great difficulty from various sources and particularly from the fact that the trolley pole in passing along with a good deal of speed and necessarily having considerable upward pressure against the wire, tends to strike the support for the wire at the successive poles and hammer it out of position. If the support is attached to or asso-

ciated with a downwardly projecting arm it is easily seen that this tendency is likely to bend such arm.

I claim—

1. The combination in a trolley wire support of a bracket arm, a span wire support attached to the end of said bracket arm, and a flexible span wire adjustably suspended between the ends of said span wire support, substantially as described.

2. The combination in a trolley support of a bracket arm, a span wire support attached to the end of said bracket arm, an eyebolt or the like passing through one end of said span wire support, and a flexible span wire having one end attached to the span wire support and the other end attached to said eye bolt whereby the tension of said span wire may be varied substantially as described.

3. The combination in a trolley supporting device of a bracket arm provided at one end with a hook, a plate attached to a supporting pole, and a recess in said plate corresponding in shape to the said hook, whereby the bracket arm may be placed in position after the plate is attached to the pole.

4. The combination in a trolley supporting device of a bracket arm provided with a hook at one end and a span wire support at the other end, substantially as described

5. The combination in a trolley supporting device of a bracket arm, a span wire support attached to one end of said bracket arm, a span wire carrying an insulating hanger and adjustably suspended between the ends of its support, and an adjustable brace for said bracket arm, substantially as described.

6. The combination in a trolley wire supporting device of a bracket arm, a span wire support attached to one end of said bracket arm, and comprising two bifurcated castings connected by two bent or curved arms, and a span wire rigidly attached to one of said bifurcated castings and adjustably attached to the other casting, substantially as described.

7. A trolley wire supporting device comprising two end pieces connected by straight or curved arms and having a flexible span wire adjustably supported between said end pieces, substantially as described.

8. A trolley wire supporting device comprising a rigid arm adapted to be secured to a pole, post or the like, and an end portion thereon adapted to support a flexible span-wire, the span-wire in substantially the same axial line as the supporting arm.

MONTRAVILLE M. WOOD.

Witnesses:

FRANCIS W. PARKER,

WALTER J. GUNTHORP.