

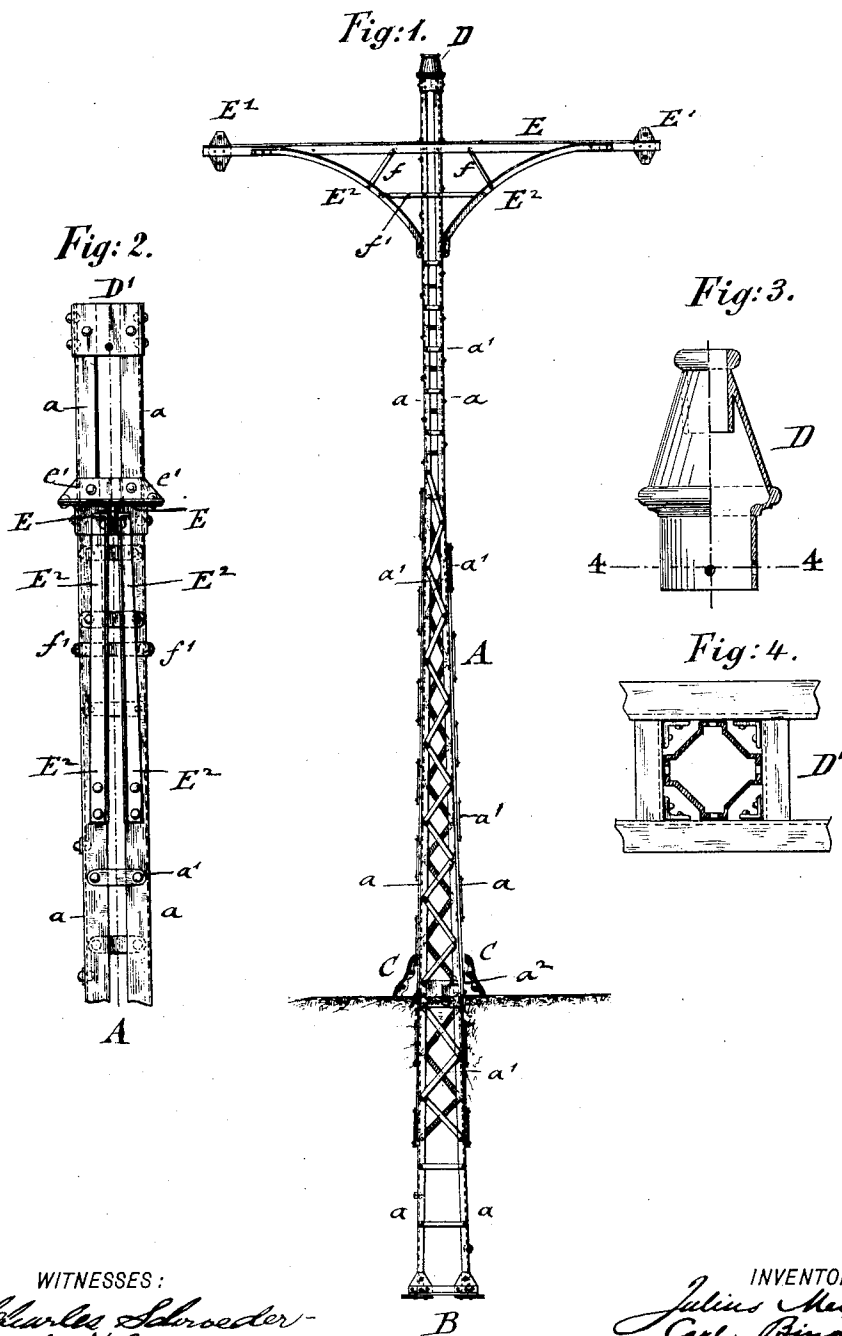
(No Model.)

2 Sheets—Sheet 1.

J. MEYER & C. BINDER.
POLE FOR ELECTRIC WIRES.

No. 476,889.

Patented June 14, 1892.



WITNESSES:

Charles Schroeder
W. D. Kelly

INVENTORS

Julius Meyer
Carl Binder
BY *George A. Renger*
ATTORNEYS.

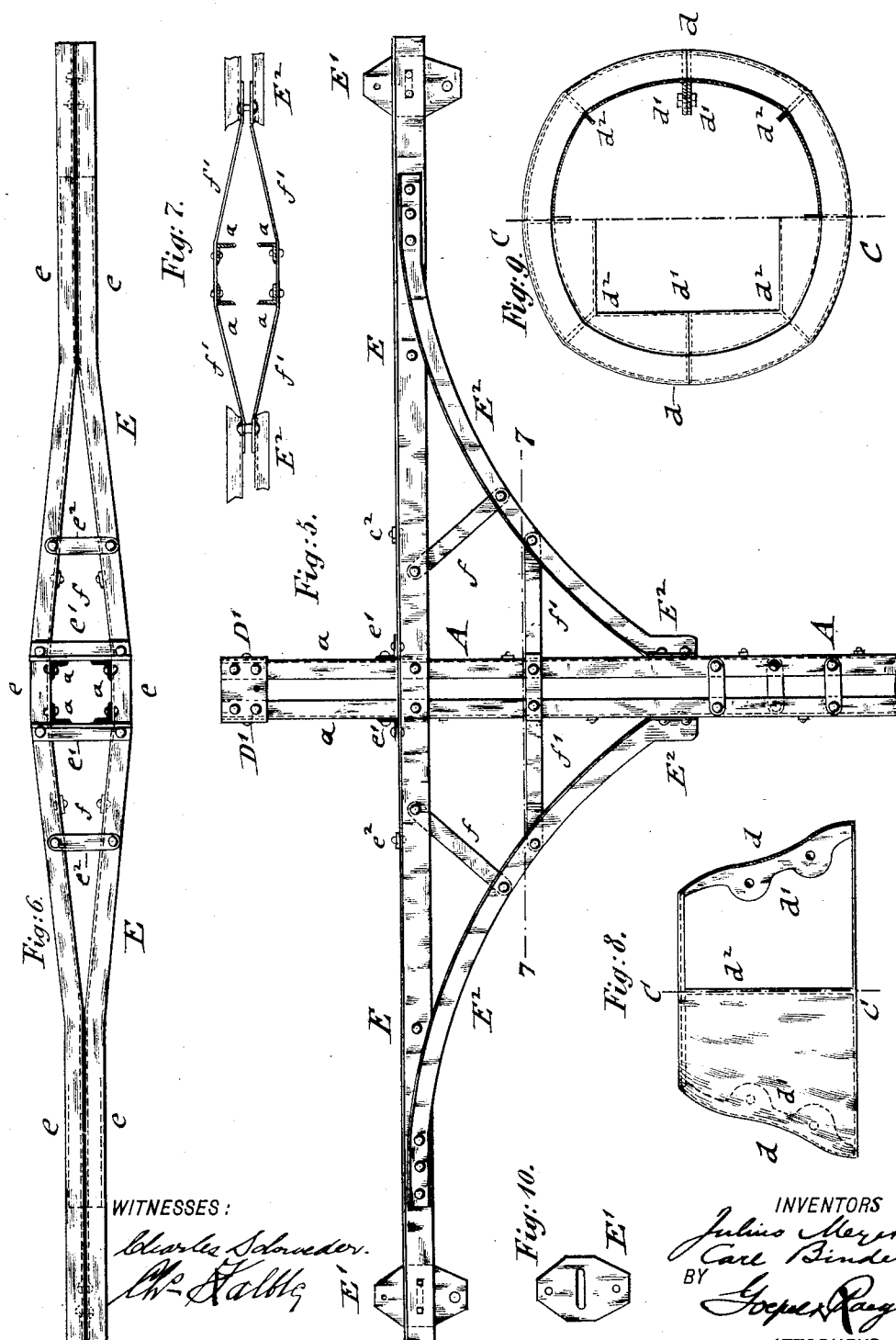
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UNITED STATES PATENT OFFICE.

JULIUS MEYER, OF NEW YORK, N. Y., AND CARL BINDER, OF CHICAGO, ILLINOIS, ASSIGNORS TO THE EDISON GENERAL ELECTRIC COMPANY, OF NEW YORK, N. Y.

POLE FOR ELECTRIC WIRES.

SPECIFICATION forming part of Letters Patent No. 476,889, dated June 14, 1892.

Application filed March 17, 1892. Serial No. 425,260. (No model.)

To all whom it may concern:

Be it known that we, JULIUS MEYER, of the city, county, and State of New York, and CARL BINDER, of the city of Chicago, county of Cook, and State of Illinois, both subjects of the Emperor of Germany, have invented certain new and useful Improvements in Poles for Electric Wires, of which the following is a specification.

This invention relates to certain improvements in the pole for electric wires for which Letters Patent were granted to us heretofore, No. 449,375, dated March 31, 1891, said improvement being designed with a view to adapt the pole for carrying the trolley-wires for two tracks for electric railways, so that only one pole between the tracks is required; and the invention consists of a pole for electric wires, which is formed of converging angle-pieces, lattice-work for connecting said angle-pieces, a shoe to which the lower ends of the angle-pieces are attached, a wheel-guard formed of two sections bolted together and applied around that part of the pole where the pole emerges from the ground, a cap applied to the top of the pole, and a laterally-extending horizontal bracket-arm, to the outer ends of which the wire-supporting plates are attached, said arms being formed of two angle-irons which are attached at their middle portions to the pole and which are supported by curved angle-irons to the post, said curved arms being connected with the horizontal arms by inclined straps and with each other by horizontal braces, as will be fully described hereinafter, and finally pointed out in the claims.

In the accompanying drawings, Figure 1 represents a front elevation of our improved pole for electric wires. Fig. 2 is a side elevation of the upper portion of the same, drawn on a larger scale. Figs. 3 and 4 are a detail vertical section and a horizontal section on line 4 4, Fig. 3, of the cap applied to the upper end of the pole. Fig. 5 is a front elevation of the upper part of the pole, drawn on a larger scale. Fig. 6 is a plan view of Fig. 5. Fig. 7 is a detail plan view, partly in section, on line 7 7, Fig. 5, of the horizontal braces connecting the pole with the curved

arms of the horizontal arms. Figs. 8 and 9 are respectively a sectional elevation and a sectional plan of the wheel-guard of the pole, and Fig. 10 is a detail view of the trolley-wire-supporting plate.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A represents an upright pole, which is composed of four converging angle-pieces, the lower ends of which are attached by suitable angle-irons to a shoe B. The converging angle-pieces are connected by lattice-pieces a' , that are riveted to the angle-pieces, the pole being provided at the point where it leaves the ground with plates a^2 , around which the wheel-guard C is placed, which is formed of two sections $d d$, each section being provided with ribs d^2 and inwardly-projecting flanges d' , which are bolted together, as shown in Figs. 8 and 9, so that the rectangularly-recessed top part of the wheel-guard is fitted snugly to the connecting-plates of the same, as shown clearly in Fig. 1. An ornamental cap D is rigidly bolted to the upper ends of the converging angle-pieces a , the lower part of the cap being held by side plates D' at the upper end of the pole, while the upper end of the cap D is made tapering, so as to give an ornamental finish to the upper end of the pole. At some distance below the upper end of the pole is arranged a horizontal bracket-arm E, which extends laterally at both sides of the pole and to the outer ends of which are attached by transverse bolts the slotted plates E' , by which the wires are supported on which the trolleys of the cars are traveling in the usual manner.

The horizontal bracket-arm E is formed of two angle-irons $e e$, which abut at their outer parallel end portions and which are made to converge from their parallel center portions toward the end portions the center portions being at such a distance apart from each other that the pole A can pass through the same.

The angle-pieces $a a$ of the pole A are bolted to the angle-irons $e e$ of the bracket-arm E and to transverse angle-irons e' , that are applied to the upper part of the angle-irons $e e$

of the bracket-arm, as shown clearly in Figs. 5 and 6.

The angle-irons of the bracket-arm E are connected by additional transverse straps e^2 and supported on curved arms E^2 of angle-irons that are attached at their lower ends to the angle-pieces a of the pole and at their upper ends to the outer ends of the angle-irons e of the bracket-arm E, as shown clearly in Figs. 5 and 6.

The angle-irons of the bracket-arm E and of the curved supporting-arms E^2 are connected by inclined straps or plates f , while the curved arms E^2 are also connected by horizontal braces f' , that are parallel at their center portions and converging toward their ends, so as to pass around the pole A, to which they are bolted, as well as to the curved arms E^2 , as shown clearly in Fig. 7.

The transversely-connected angle-irons e of the bracket-arm E form with the curved supporting-arms E^2 , their inclined connecting-straps f , and the horizontal braces f' a rigid and strong support for the wire-supporting plates E' at the ends of the bracket-arm E, the parts of which can be completely assembled and shipped detached from the pole, so that the bracket-arm and pole can be readily connected and the pole then erected at the point where it is required for use. The cap is applied to the top of the pole after the bracket-arm E is attached thereto and while the wheel-guard is applied to the point where the pole leaves the ground after the base-shoe and lower part have been submerged sufficiently for giving to the pole a firm and strong support in the ground. Our improved pole is intended for use as a center pole for electric railways and serves to support the wires for both tracks, which is accomplished by the bracket-arm, so that one pole takes the place of the two poles erected at opposite sides of a street, as heretofore. Owing to the location of the pole between the tracks, the wheel-guard is necessary so as to protect the pole against injury of passing vehicles at the point where it leaves the ground. The entire pole and the bracket-arm at its upper part are made of wrought-iron and form a light, neat, and yet strong and durable support for the trolley-wires for electric railways and other purposes.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. The combination, with a pole or vertical support formed of converging angle-pieces, of a horizontal bracket-iron formed of two pieces

of angle-iron which abut at their outer parallel end portions and converge from their parallel center portions toward each end, the center portions being at such a distance apart that the said pole can pass through the same, and wire-carrying plates supported at the outer ends of said arms, substantially as described.

2. The combination, with an upright pole formed of converging angle-pieces and lattice-work connecting said angle-pieces, of a horizontal bracket-arm attached to the upper part of the pole, said bracket-arm being composed of angle-irons, curved arms for supporting said angle-irons, and straps and braces between the pole, bracket-arm, and curved arms, substantially as set forth.

3. The combination, with a pole for electric wires, said pole being formed of converging angle-irons connected by lattice-pieces, of a horizontal bracket-arm formed of two angle-irons, curved arms for supporting said angle-irons, and horizontal braces between the pole, bracket-arms, and curved arms, the angle-irons of the bracket-arms and the horizontal braces extending at their center portions around the poles and converging toward their ends, substantially as set forth.

4. The combination, with an upright pole formed of converging angle-pieces and lattice-work connecting the same, of a horizontal bracket-arm attached to the upper part of the pole, said bracket-arm being formed of two angle-irons that embrace the upper end of the pole and are made converging toward their outer ends, wire-supporting plates attached to the outer ends of the bracket-arm, curved arms connecting the pole with the outer ends of the bracket-arm, horizontal braces or straps for connecting the pole and curved arms, said braces or straps extending around the pole and converging toward the curved arms, and inclined connecting straps or plates between the curved supporting-arms and the angle-irons of the bracket-arm, substantially as set forth.

In testimony that we claim the foregoing as our invention we have signed our names in presence of two subscribing witnesses.

JULIUS MEYER.
CARL BINDER.

Witnesses as to Julius Meyer:

PAUL GOEPEL,
CHAS. BLES.

Witnesses as to Carl Binder:

A. L. KUHN,
A. FRANKLIN GIESE.