

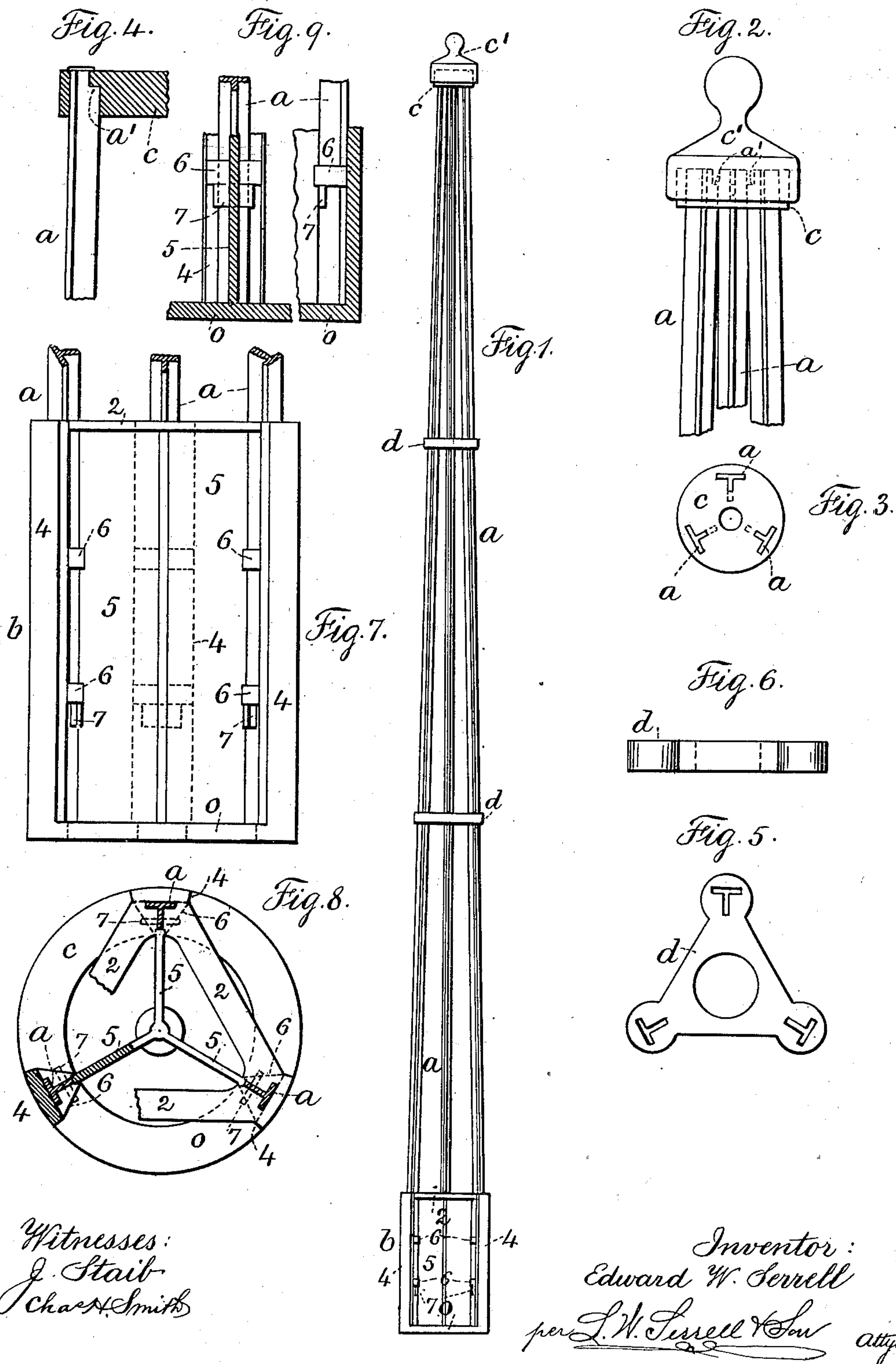
No. 662,312

Patented Nov. 20, 1900.

E. W. SERRELL.
POLE FOR TELEGRAPHS, &c.

(Application filed Dec. 21, 1899.)

(No Model.)



Witnesses:
J. Staib
Chas. H. Smith

Inventor:
Edward W. Serrell
per L. W. Serrell & Son attys

UNITED STATES PATENT OFFICE.

EDWARD W. SERRELL, OF NEW YORK, N. Y., ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE ELECTRIC TRIPARTITE STEEL POLE COMPANY, OF NEW JERSEY.

POLE FOR TELEGRAPHS, &c.

SPECIFICATION forming part of Letters Patent No. 662,312, dated November 20, 1900.

Application filed December 21, 1899. Serial No. 741,123. (No model.)

To all whom it may concern:

Be it known that I, EDWARD W. SERRELL, a citizen of the United States, residing at New York city, in the county and State of New York, have invented an Improvement in Poles for Telegraphs, &c., of which the following is a specification.

My present invention is designed as an improvement upon the device shown and described in my application for Letters Patent filed August 12, 1897, Serial No. 726,990. The object of the present invention is to produce a pole for electric railways, electric lights, and telegraphs that is light, rigid, and practically unyielding under strain and which in its knockdown condition is readily shipped and transported from place to place.

In carrying out my present invention I employ metal bars that are of T or other shape in cross-section. These are held together at intervals by binding-disks. At the upper end these bars are held together by a cap-block, the bars being offset where they are received in the cap-block, with the ends of the bars upset over the cap-block to make a secure fastening. The lower ends of the bars are received into a metal pedestal, which is of peculiar formation and so designed as to hold the bars rigidly in place and to receive a part of the concrete forming the foundation, so that the pedestal is locked, as it were, to the foundation and at the same time so as to employ as little metal as possible in the structure of the pedestal consistent with strength and strain. I prefer to make use of three bars and to so place these bars that they occupy like relations to an imaginary center, and the pedestal is provided with sockets to receive the lower ends of the bars, which bars are preferably notched for the entrance of a locking-key. The particular construction of the pedestal is hereinafter more particularly set forth.

In the drawings, Figure 1 is an elevation representing a pole made according to my invention. Fig. 2 is an elevation of the bar ends, cap-block, and cover. Fig. 3 is a plan of the same without the cover. Fig. 4 is an elevation of the upper end of a single bar and section of the cap-block, showing the offset in the bar. Fig. 5 is a plan, and Fig. 6 an ele-

vation of one of the binding-disks. Fig. 7 is an elevation of the metal pedestal, and Fig. 8 a plan of the same and partial section to show bridge-pieces. Fig. 9 shows by sectional side and front elevation the manner of locking the lower ends of the bars to the pedestal. Figs. 2 to 9, inclusive, are of the same size and of larger size than Fig. 1 for clearness.

The metal bars *a* may be of any desired shape. I have shown and prefer a T shape in cross-section for ordinary uses; but for very light poles, such as those for electric lights, I prefer a figure which in cross-section is very nearly a half-circle. There are three of these bars shown, and I would remark that this number is preferable, as it produces a stiffer and more rigid pole than where a greater or less number are employed.

The metal pedestal is shown at *b*, the cap-block at *c*, the cover for the cap-block at *c'*, and the binding-disks at *d*. The upper ends of the metal bars *a* are offset at *a'*, and the cap-block is perforated at equidistant places to receive these offset upper ends of the bars, and I prefer to rivet the upper ends of the bars over upon the cap-block, so as to hold the parts firmly together as against both strains of tension and pressure. The cover *c'*, of any desired form or description, may be and preferably is employed to set over the cap-block *c* and serves as a device to which the trolley-span or light-wires are connected. The binding-disks *d* are preferably of triangular form provided with openings agreeing with the sectional form of the metal bars *a*. These binding-disks are passed over the metal bars and are of different sizes. The form of the pole tapers upward from the pedestal to the cap-block, and in the distance between the pedestal and the cap-block there are several binding-disks spaced apart, and the disks are made of a size according to the location of the same upon the pole, and they are to be driven to place after the lower ends of the bars *a* are secured to the pedestal, after which the cap is to be put on and the bars riveted thereto.

The metal pedestal *b* comprises an open triangular top 2, a circular base *o*, corner-posts 4, and connecting-webs 5, and bridge-pieces 6 between the corner-posts and webs

5. The triangular top is integral with the corner-posts, the connecting-webs and the circular base and the bridge-pieces 6 extend from the corner-posts to the connecting-webs, dividing the vertical height of the pedestal into about equal parts, and the corner-posts are spaced apart from the vertical edges of the connecting-webs to receive the lower ends of the metal bars *a*. There are cavities or openings in the bridge-pieces 6, agreeing in form with the cross-section of the metal bars *a*, to receive the lower ends of the metal bars, which pass down through said openings in the pedestal approximately to the circular base, and adjacent to the lower ends of the metal bars are notches, which notches when the bars are in place come below the lower bridge-pieces 6, and I make use of keys 7, passed through the notches in the vertical bars *a* beneath the lower bridge-pieces 6, to anchor the metal bars *a* to the pedestal.

In placing the pole and its pedestal in position a bed of concrete is preferably employed on which the pedestal is set, and in building up the concrete base the same fills over the circular base of the pedestal 3 up to the connecting-webs 5, so that there is a body of the concrete over the base of the pedestal to assist in holding the same down to place, and as the concrete base is built up it extends over the triangular top and fills the open space within the triangular top and between the same and the connecting-webs, so that when the material sets the said pedestal is tied in securely to the concrete base. The keys 7 tie the metal bars *a* to the pedestal, so that when strain is applied the said bars do not pull out of the pedestal or shift in any sense. The upper ends of the bars being offset and riveted to the cap-block prevent any pulling out of the bars from the cap-block at the upper end of the pole under strain, and the binding-disks *d* connect the bars of the pole securely together at intervals, so that the same is thoroughly braced and stiffened at every point.

These poles are light, rigid, and stiff under strain, and they are open, so that all parts can be readily and thoroughly attended to to protect the metal against the weather, and they are equally available for use with trolley-wires, telegraph-lines, or electric-lighting wires.

I claim as my invention—

1. In a metal pole composed of not less than

three similar equidistant metal bars with the upper ends of the metal bars offset, a cap-block having equidistant offset openings to receive the upper ends of the said bars, and to which cap-block the said bars at their ends are riveted, a cover over the ends of the bars and the cap-block and a pedestal having vertical openings receiving the lower spread ends of the said bars and means for connecting the said bars securely to the pedestal, substantially as set forth.

2. In a metal pole, the combination with metal bars, a cap-block to which the same are secured and binding-disks spaced apart upon said bars, of a pedestal composed of a triangular top, a circular base, connecting corner-posts and webs extending between the triangular top and circular base and keys for securing the lower ends of said metal bars to the said pedestal, substantially as set forth.

3. In a pole, the combination with not less than three similar equidistant metal bars offset at their upper ends and notched adjacent to their lower ends, of a cap-block with offset openings receiving the upper ends of the said bars and to which they are riveted, and a pedestal composed of an open triangular top, circular base, corner-posts, and connecting-webs extending from the circular base to the triangular top, bridge-pieces extending from the corner-posts to the connecting-webs and keys passing through the notches in the lower ends of the metal bars and beneath the lower bridge-pieces for locking the metal bars to the pedestal, substantially as set forth.

4. In a pole, the combination with not less than three similar equidistant metal bars offset at their upper ends and notched adjacent to their lower ends, of a cap-block with offset openings receiving the upper offset ends of the bars and to which they are riveted, a pedestal having equidistant vertical openings or cavities receiving the lower ends of the bars and means for locking the bars thereto at the notches, and clamping devices between the pedestal and cap-block and surrounding the bars, substantially as and for the purposes set forth.

Signed by me this 8th day of November, 1899.

EDWARD W. SERRELL.

Witnesses:

GEO. T. PINCKNEY,
S. T. HAVILAND.