Oct. 7, 1930. W. UNDERWOOD 1,777,509

CONSTRUCTION FOR LIGHTING POSTS AND THE LIKE

Filed Dec. 14, 1927

Fig. 1.

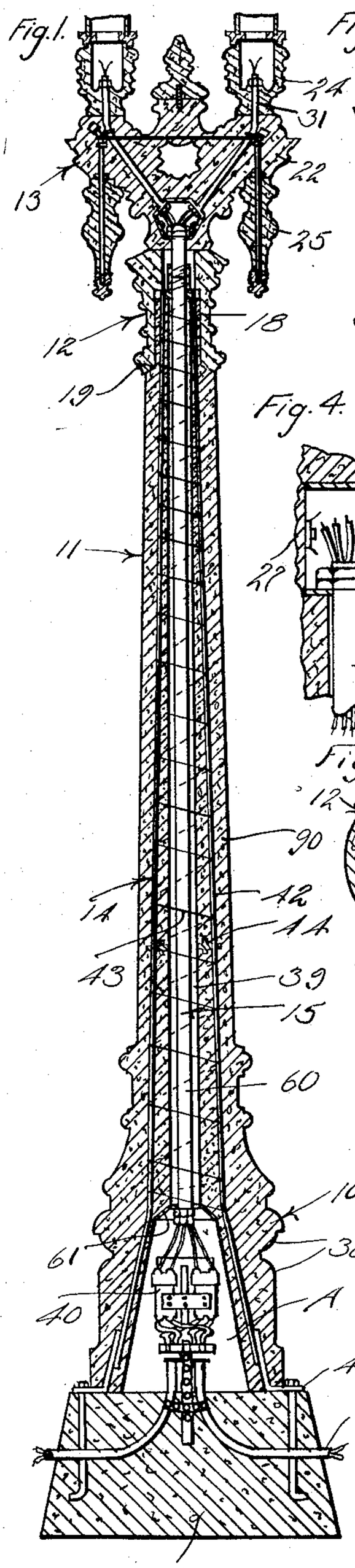


Fig. 2.

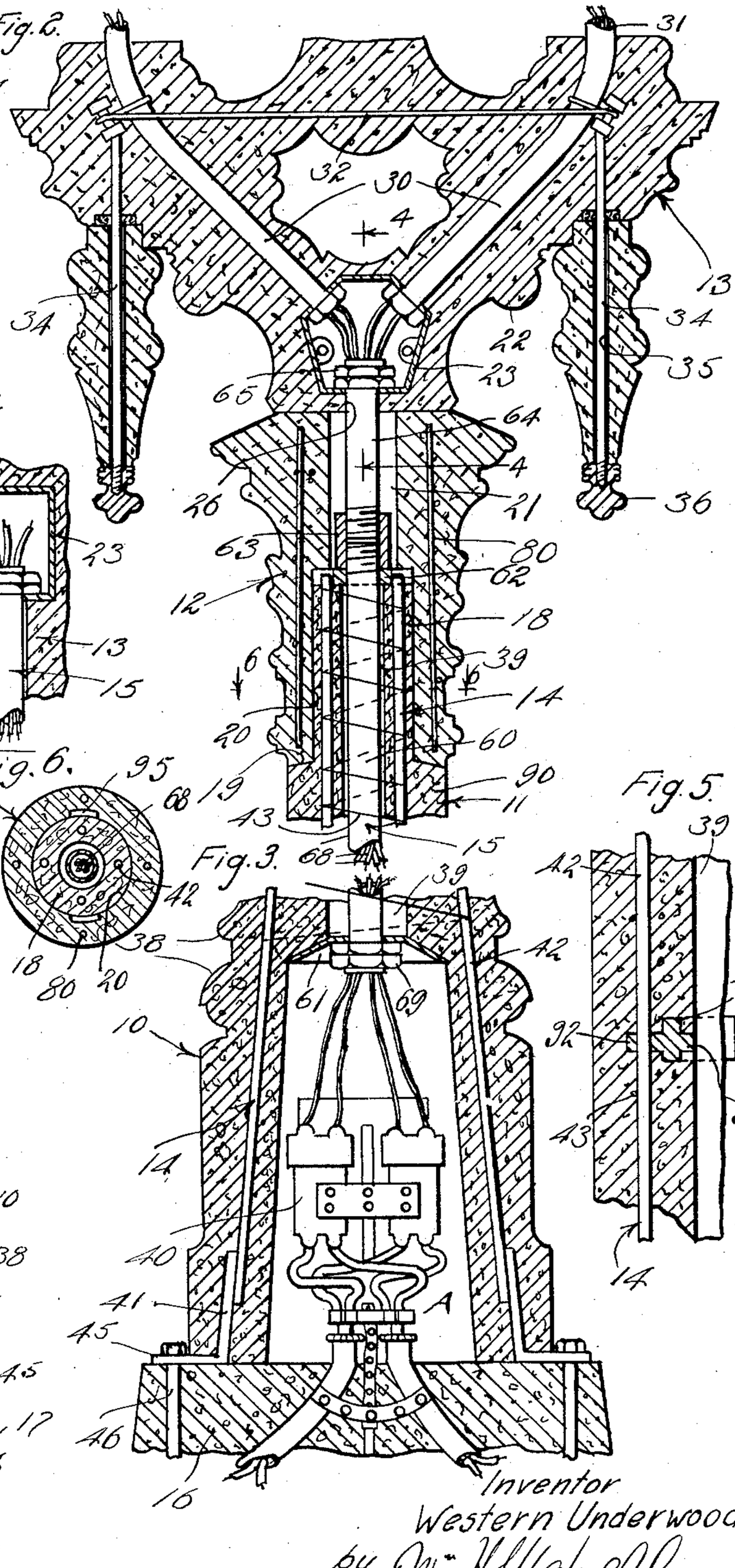


Fig. 4.

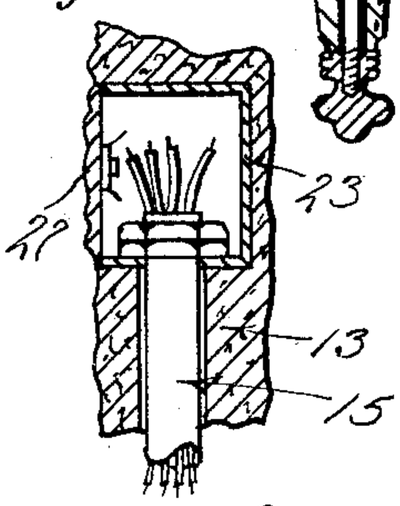
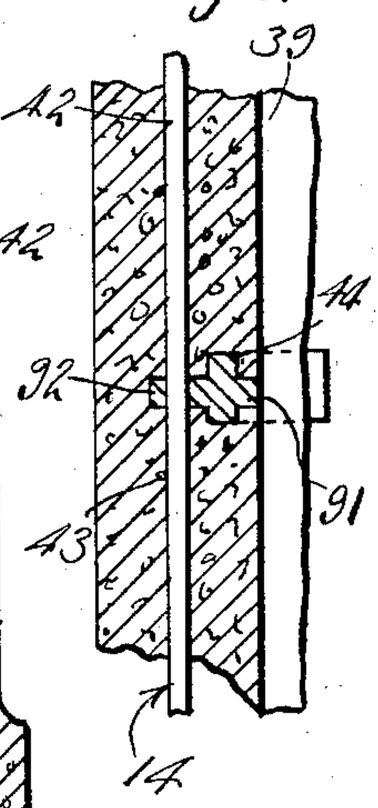


Fig. 6.

Fig. 3.

Fig. 5.



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UNITED STATES PATENT OFFICE

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CONSTRUCTION FOR LIGHTING POSTS AND THE LIKE

Application filed December 14, 1927. Serial No. 239,917.

This invention has to do with a post construction, and it is a primary object of the invention to provide a practical improved construction for cementitious or monolithic posts such as are used for electroliers or lighting standards.

It is a general object of my present invention to provide a sectional post of the type mentioned embodying a simple, practical and improved means of assembling and tying together the sections.

Another object of the invention is to provide an improved means for mounting a capital on a column.

It is another object of this invention to provide a simple, practical and inexpensive construction for joining sections of a post construction and making the necessary electrical connection between the sections.

A further object of the invention is to provide various improved features of construction and arrangement of parts which make for a practical, inexpensive and effective post construction.

The various objects and features of the invention will be best and more fully understood from the following detailed description of a typical form and application of the invention, throughout which description reference is had to the accompanying drawings, in which:

Fig. 1 is a vertical, detailed, sectional view of a post embodying the present invention showing it mounted on a typical base;

Fig. 2 is an enlarged, detailed, sectional view of the upper portion of the post showing the manner in which the capital is mounted on the column and showing the details of construction of the head and its mounting on the capital;

Fig. 3 is an enlarged, detailed, sectional view of the lower portion of the post showing the manner in which the lower end of the tie is secured or anchored to the base of the post;

Fig. 4 is a sectional view taken as indicated by line 4—4 on Fig. 2;

Fig. 5 is an enlarged detail sectional view, and

Fig. 6 is a detailed sectional view taken as indicated by line 6—6 on Fig. 2.

The post provided by or embodying this invention includes, generally, a base 10, a column 11 extending upwardly from the base, a capital 12 on the upper end of the column, a head 13 mounted on the capital reinforcements 14 for the column and base, and a tie means 15 for securing the several parts or sections together. The construction is of the reinforced cementitious or monolithic type, and is made with the use of molds. In the form of my invention illustrated in the drawings, the base 10 and column 11 are formed as an integral unit, while the capital 12 and head 13 are separate parts or units.

The base 10 is a comparatively large or massive part of the post and has its exterior 38 shaped and finished to be ornamental and harmonious with the design of the column 11. In accordance with my invention, a comparatively large opening or chamber A is provided in the base 10. The chamber A extends upwardly into the base from its lower end and communicates with an opening 39 that extends longitudinally through the column 11. The top or upper portion of the chamber A preferably converges upwardly and inwardly, as shown in the drawings. The chamber is made sufficiently large to conveniently house the electrical fixtures 40 through which the electrical parts of the post are connected with the lines entering the chamber A from the foundation 16. In accordance with standard practice, the electric lines for the post are arranged through under-ground conduits 17 which are arranged through the post foundation 16 to project upwardly into the chamber A.

The column 11 projects upwardly from the base 10 and, as above mentioned, is preferably integral with the base. It is to be understood, of course, that the exterior of the column may be suitably shaped and finished and that the column may be proportioned in any suitable manner. In accordance with this invention, a central pin-like projection 18 is provided on the upper end of the column 11. The projection 18 is molded or formed integral with the column. The lon-

gitudinal opening 39 provided in the column is centrally located in the column and extends continuously from the base 10 through the column 11 and the projection 18 on the upper end of the column.

The capital 12 is a unit or section of the post separate from the other parts and is applied to the upper end of the column. The capital seats on the top 19 of the column and is provided in its lower end with a central socket 20 to receive the pin projection 18 of the column. The capital is provided with suitable reinforcements 80 and has a central longitudinal opening 21 extending through it to form a continuation of the opening 39. Grooves 95 are formed in the opening 21 to admit plastic cement between the wall of the socket 20 and projection 18.

The head 13 is separate from the other parts of the post and includes a main portion or body 22, a junction box 23 in the body, one or more lamp holders 24 mounted on the body, and ornamental parts 25 attached to the body. The body portion of the head is mounted on the top or upper end of the capital and is provided with a central opening 26 registering with the opening 21 in the capital and extending to the junction box 23 in the head. The junction box 23 may be a metal box mounted or cast in the body 22 and open at one side of the body. A cover plate 27 is provided for the open side of the junction box.

The particular head illustrated in the drawings carries two lamp mountings 24 arranged in opposite directions from the central axis of the post. In accordance with my invention, tubular metal conduits 30 extend from the junction box to the locations of the lamp mountings where they have parts 31 projecting from the body to hold and project into the lamp mountings. In the design illustrated, the lamp mountings project upwardly from the body 22 and are located somewhat above the junction box 23 so that the conduits 30 extend upwardly and outwardly from the junction box to the lamp mountings. A transverse reinforcing tie 32 extends between the outer parts of the conduits through the body 22. The ornamental parts 25 in the design shown are in the form of drops projecting downwardly from the body below the lamp mountings 24. In accordance with my invention, bolts 34 are imbedded in the body 22 of the head and have parts projecting downwardly from the body to carry the drops 25. The drops 25 are provided with longitudinal openings 35 to receive the projecting parts of the bolts 34 and ornamental metal caps 36 are provided on the lower end of the bolts to retain the drops on the bolts.

The metal reinforcements 14 provided in the column and base include foot brackets 41 imbedded in the lower part of the base, longitudinal rods 42 extending from the brackets 41 upwardly through the base 10 and column 11 to the upper end of the projection 18 at the top of the column, ties 43 connecting and tying together the rods 42 at various points along their lengths, and rings 44 definitely spacing the rods in the column. The foot brackets 41 have lugs 45 projecting from the exterior of the base to receive studs 46 projecting from the foundation 16. The rods 42 are fixed to the brackets 41 and extend through the base and column so that they are completely imbedded in these parts. The rods are preferably twisted or deformed bars. I construct the unit comprising the base and column so that the longitudinal reinforcing rods 42 are free during the formation of the base and column, that is, are without strains such as are liable to occur if the rods are held tightly or under strain during the formation of the post. The rods, being free of unnatural strains, will remain bonded with the cementitious body 90 formed around them. The ties 43 may be loops of wire, or the like, extending around and connecting the several rods 42 at suitable intervals, or they may be one or more wires wrapped spirally around the rods, as shown in the drawings. The rings 44, provided for spacing the rods 42, are preferably rigid metal rings which are imbedded in the column and which engage the longitudinal rods 44 to positively space and position them within the column. The rings 44 are imbedded in the cementitious body 90 and are provided with inwardly projecting lugs 91 which extend to the opening 39 and outwardly projecting lugs 92 that carry the rods 42. These rings make possible the definite and accurate positioning of the rods and ties within the column during the formation of the column without putting the rods under tension or strain. With this construction, the column and base can be formed by the centrifugal method with the reinforcements accurately centered in the cementitious body.

The tie means 15 provided by this invention includes a tube 60 extending from the chamber A in the base to the upper end of the column projection 18, an anchor plate 61 for securing or anchoring the lower end of the tube 60 in the base, a clamp plate 62 on the upper end portion of the tube 60 to engage the upper end of the projection 18, a coupling 63 threaded on the upper end of the tube 60 above the plate 62, a tubular extension 64 carried by the coupling to project upwardly through the capital and the opening 26 in the head into the junction box 23, and a clamp nut 65 on the extension within the junction box. The tube 60 and the various other parts of the tie means are formed of metal, the tube and extension being made sufficiently large to carry the necessary wires 68 from the fixtures 40 to the junction box

23. The anchor plate 61 is made to fit the top or upper end portion of the chamber A and thus has a large effective bearing in the base. In the construction shown, the tube 60 projects downwardly through the anchor plate 61 and nuts 69 are applied to the tube below the plate. The clamp plate 62 slides on the tube to engage the top of the column projection 18 and may be tightened through the coupling 63 and/or the nuts 69 so that the tube 60 is held under the desired tension. The coupling 63 is screwthreaded onto the upper end of the tube 60 and is in engagement with the plate 62. The extension 64 is screwthreaded into the coupling and projects far enough into the junction box 23 to receive the nut or nuts 65. By this construction, the tube 60 and its extension 64 form a continuous tie between the base 10 and the head 13, at the same time forming a conduit for the wires from the base to the head. This construction is not only simple and inexpensive, but is particularly effective and secure. The sectional construction permits of the post design being readily varied as sections of suitable design can be assembled together in various combinations.

Having described only a typical preferred form of my invention, I do not wish to limit myself to the specific details set forth, but wish to reserve to myself any changes or variations that may appear to those skilled in the art or fall within the scope of the following claims.

Having described my invention, I claim:

1. A post of the character described including a base having a chamber formed in it, a column projecting upwardly from the base and having an opening extending longitudinally through it and communicating with the chamber, a tube extending from the chamber through the opening, a clamp plate on the tube at the upper end of the column within the peripheral margins of the upper end of the column, and an anchor plate in the chamber holding the tube so that it can be put under tension.

2. A post of the character described including a base having a chamber formed in it, a column projecting upwardly from the base and having an opening extending longitudinally through it and communicating with the chamber, a tube extending from the chamber through the opening, a clamp plate on the tube at the upper end of the column, a coupling screwthreaded on the upper end of the tube above the plate, an anchor plate on the tube in the chamber, and a nut screwthreaded on the tube below the anchor plate.

3. A post of the character described including a base, a column projecting upwardly from the base, there being an unrestricted opening extending continuously longitudinally through the base and column, a tube anchored in the base and extending to the top of the column, a capital on the column, a head on the capital, an extension connected to the tube and extending through the capital and into the head, and means on the extension at the head whereby the head and capital are clamped to the column through the extension.

4. A post of the character described including a base, a column projecting upwardly from the base, there being an opening extending longitudinally through the base and column, a tube anchored in the base and extending to the top of the column, a capital on the column, a head on the capital, a coupling on the upper end of the tube tightened so that the tube is under tension, an extension carried by the coupling and extending through the capital and into the head, and means on the extension at the head whereby the head and capital are clamped to the column through the extension.

5. A post of the character described including a base, a column projecting upwardly from the base, there being an opening extending longitudinally through the base and column, a tube anchored in the base and extending to the top of the column, a capital on the column, a head on the capital, a junction box in the head, an extension connected to the tube and extending through the capital and into the junction box, and a member screwthreaded on the extension in the junction box whereby the head and capital are clamped to the column.

6. A post of the character described including a monolithic body forming a column and a central upwardly extending projection on the upper end of the column, there being a central longitudinal opening through the column and projection, a capital for the column having a socket to receive the projection, an unrestricted tube extending through the opening to the upper end of the projection, a coupling on the upper end of the tube, and an extension carried by the coupling and extending through the capital to hold the capital on the column.

7. A post of the character described including a column, a tube held in the column, a capital on the column, a head on the capital, a coupling on the upper end of the tube tightened so that the tube is under tension, an extension carried by the coupling and extending through the capital and into the head, and means on the extension at the head whereby the head and capital are clamped to the column through the extension.

8. A post of the character described including a column, a tube held in the column, a capital on the column formed separate from the column, a head on the capital formed separate from the capital, a junction box in the head, an extension detachably connected to the tube and extending through the capital and into the junction box, and a member

screwthreaded on the extension in the junction box whereby the head and capital are clamped to the column.

In witness that I claim the foregoing I have hereunto subscribed my name this 1st day of December, 1927.

WESTERN UNDERWOOD.