Oct. 6, 1925. 1,555,945

F. CUTTLE ET AL

POLE SUPPORT

Filed Dec. 8, 1923

FIG. 1.

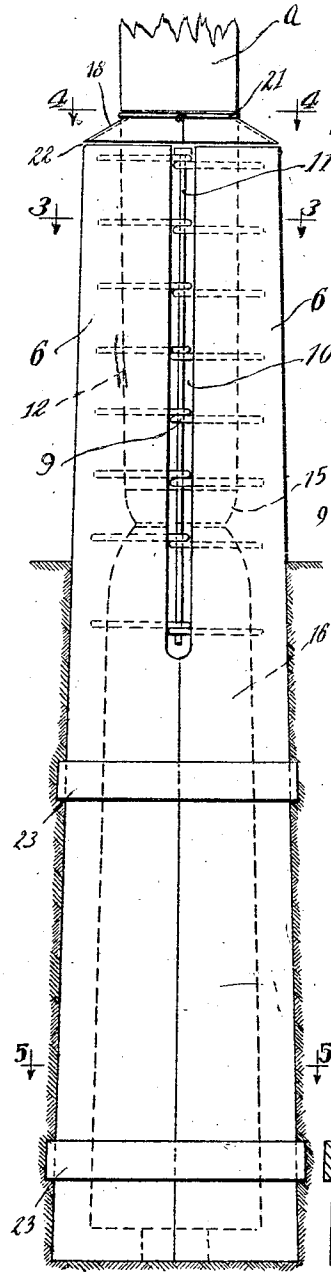


FIG. 2.

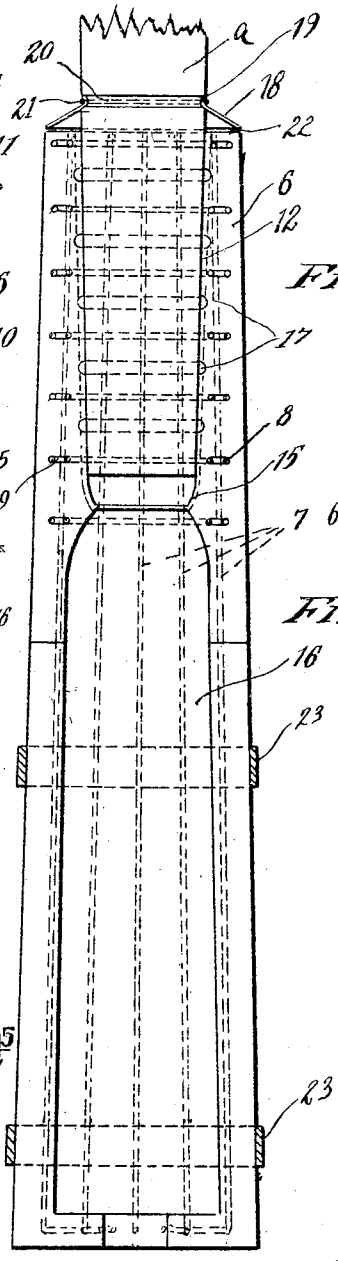


FIG. 3.

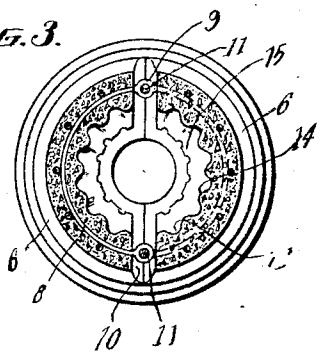


FIG. 4.

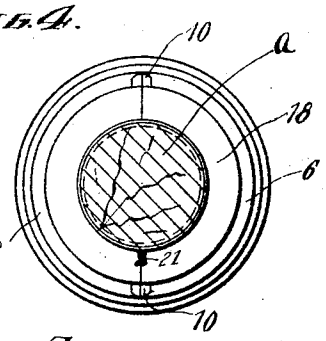
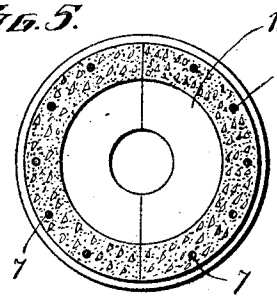


FIG. 5.



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UNITED STATES PATENT OFFICE.

FRANCIS CUTTLE AND HENRY E. DE NYSE, OF RIVERSIDE, CALIFORNIA.

POLE SUPPORT.

Application filed December 8, 1923. Serial No. 679,332.

To all whom it may concern:

Be it known that we, FRANCIS CUTTLE and HENRY E. DE NYSE, citizens of the United States, residing at Riverside, in the county of Riverside and State of California, have invented a new and useful Pole Support, of which the following is a specification.

This invention relates to sockets to the type employed in the earth for supporting poles, the principal object of such sockets being to prevent or minimize decaying of the lower ends of the poles, the sockets holding the poles free from the earth. The term "poles" is used herein in a generic sense to define poles of the type employed in supporting wires above the surface of the earth, as well as other poles or posts.

An object of the invention is to support the pole in a manner to permit of air circulation and water drain passages to extend in proximity to the pole so that any moisture that gets into the pole seat will readily drain therefrom and so that air can freely circulate around the base of the pole. The construction of the pole seat is such as to support the pole without the use of gravel or other material that tends to hold moisture and prevent the free circulation of air.

Another object is to provide a socket of this type in which a pole can be readily inserted without the necessity of raising the pole to any great extent above the surface of the earth. This is especially of importance when the pole carries wires or cable. In order to effect this, the socket is longitudinally divided into sections and means are provided to secure the sections to one another.

Another object is to prevent water that may run down the exposed portion of the pole from entering the socket, thus minimizing the tendency to decay of those portions of the pole that are in contact with the socket.

The accompanying drawings illustrate the invention:

Figure 1 is a longitudinal view of a pole socket constructed in accordance with the provisions of this invention, a fragment of a pole being shown mounted in the socket.

Fig. 2 is a longitudinal view, looking at the inner face of one of the socket sections, a fragment of a pole being shown in place in the socket, and the binding collars being shown in section.

Figs. 3, 4 and 5 are plan sections on the lines indicated by 3—3, 4—4, and 5—5, respectively, Fig. 1, the pole being omitted in Fig. 3.

Referring to the drawings, there is provided a tubular body, preferably divided longitudinally to form a pair of opposed channeled sections 6. The sections 6 are molded of cementitious material, for example of concrete, and vertically and horizontally disposed reinforcing members 7, 8, respectively, are preferably cast in place in the sections. The members 7 may be of any preferred or well known type of reinforcement, and, preferably, are shaped at their ends to form eyes 9, the eyes of the members 8 of one of the sections overlapping and registering with the eyes of the members 8 of the other section. The eye portions of the members 8 project into longitudinally extending openings or channels 10 which open to the peripheral face of the tubular member. The channels 10 occur at the joints between the sections, one half of the channel being in one section and the other half in the other section.

Positioned in the channels 10 and inserted through the eyes 9 are bolts or pins 11 which function to hold the sections together. These elements may be inserted at the top of the tubular member, since the channels 10 open to the upper end of said tubular member. The upper portion of the bore of the tubular member constitutes a pole seat 12 which is preferably reduced downwardly, as illustrated. The channels 10 extend to the seat 12. In order that the wooden post or pole, indicated fragmentally at *a*, may be firmly seated in the tubular member, without interfering with the drawing off of moisture and the circulation of air around the base of the pole, the bore portion or seat 12 is longitudinally corrugated, the channels of said corrugations constituting drain and air ducts 13 and the pole or post contacting with the bore 12 at only the rib portions 14 of the corrugations.

The lower portion of the pole 12 will preferably be tapered complementarily to the

taper of the seat 12. The corrugations are turned inwardly at their lower ends, as indicated at 15, to form abutments to limit descent of the pole in the tubular member. The lower ends of the ducts 13 communicate with the lower bore portion 16 so that any water getting into the ducts 13 can readily drain therefrom into the bore portion 16.

In order to utilize the channels 10 as ports for the passage of air to and from the ducts 13, there are provided transversely extending air ducts 17 which cut through the corrugations and which communicate at their ends with the channels 10. Thus air can freely circulate through the ducts 13 to rapidly evaporate any moisture that may be in said ducts and, especially, between the ribs 14 and pole, so as to prevent or minimize decay of said pole.

Though the upper ends of the ducts 13 may be left uncovered, it is of advantage to provide a cover 18, preferably formed in half sections, said cover being in the form of a conic frustum and having its smaller diameter portion concavo-convex, as indicated at 19, to fit into an annular groove 20 formed in the pole *a*. A wire 21 is bound around the concavo-convex portion 19, thus securely holding the sections 18 in place to shed any water that may run down the pole, and thus prevent said water from running into the bore of the tubular member. Preferably the collar 18 is spaced slightly from the tubular member so as to form an air passage 22 between the collar and the upper end of the tubular member, thus still further facilitating circulation of air around that portion of the pole that is inserted in the socket.

To install a pole in the socket above described, assuming that the pole is to be removed from the earth and has wires attached to it, the pole will be sawed off just above the surface of the earth and the sawed upper part moved to one side of the portion remaining in the earth. The earth will be excavated and said remaining portion removed and one of the sections 6 will be placed in position in the excavation. Then a bar will be laid across the excavations so as to extend through the channel 10. If desired the bar may rest on jacks. The post will then be moved so as to rest on the bar and the packs will be operated to hoist the pole slightly above the position it is to occupy in the socket.

It will be noted that this may be accomplished without raising the pole more than a few inches. This is quite an advantage, especially if the pole is wire-strung, for example, of the type employed for carrying telephone or telepraph wires. Then the other socket section 6 will be inserted in the excavation, the bolts 11 slipped into place in the eyes 9, and the jacks operated to lower the pole into engagement with the seat 12. Then the cover 18 will be secured in place.

To further bind the lower portions of sections 6 together, it may sometimes be advisable, especially where the socket is to be subjected to excessive loads and strains, to employ collars or bands 23 which will be slipped on over the pole and over the sections 6 after said sections have been assembled in position in the excavation and before the pole has been lowered into its seat.

It will be clear from the foregoing that the post or pole is entirely free from engagement with any material holding it, excepting at the high points of the ribs of the corrugations, thus there is nothing more than line contacts between the socket and the pole. Because there is only line contact the wood along the lines of contact will quickly dry, if it should happen that moisture is conducted to the surface of the pole by the concrete, thus minimizing the liability of decaying of the wood. Of course the free circulation of air through the ducts 13 and cross ducts 17 aids in maintaining the wood in a dry condition.

We claim:

1. A pole support comprising a tubular cementitious member having a corrugated pole seat, the corrugations extending from end to end of the seat to form drain and ventilation ducts, there being a longitudinally extending channel opening from the seat to the outer face of said member and there being transversely extending ducts connecting the first ducts and the channel.

2. A pole support comprising a tubular cementitious member divided longitudinally into sections, there being longitudinally extending channels at the joint between the sections, members projecting at intervals from the sections into the channels, the projecting portions having eyes, and bolts in the channels extending through the eyes.

3. A pole support comprising a tubular cementitious member divided longitudinally into sections, and means to hold the sections together, there being a longitudinally extending channel formed half in one section and half in the other section and extending from the bore to the peripheral face of the member for the circulation of air about a pole mounted in the bore.

4. A pole support comprising a tubular cementitious member divided longitudinally into sections, the corrugations extending from end to end of the seat to form drain and ventilation ducts, there being longitudinally extending channels opening from the seat to the peripheral faces of said member at the joint between the sections, and there being transversely extending ducts connecting the first ducts and the channel, members projecting at intervals from the

sections into the channels, the projecting portions having eyes, and bolts in the channels extending through the eyes.

5. A pole support comprising a tubular cementitious member having an opening extending from the bore to the peripheral face of the member for the circulation of air about a pole mounted in the bore, a frusto-conical collar, and means to secure the collar to the pole in spaced relation with the cementitious member to shed water and provide for the passage of air between the cementitious member and the edge of the collar.

Signed at Riverside, California, this 27th day of November, 1923.

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