H. M. HUGHS.

BASE FOR POLES OR POSTS.

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976,879.

Patented Nov. 29, 1910.

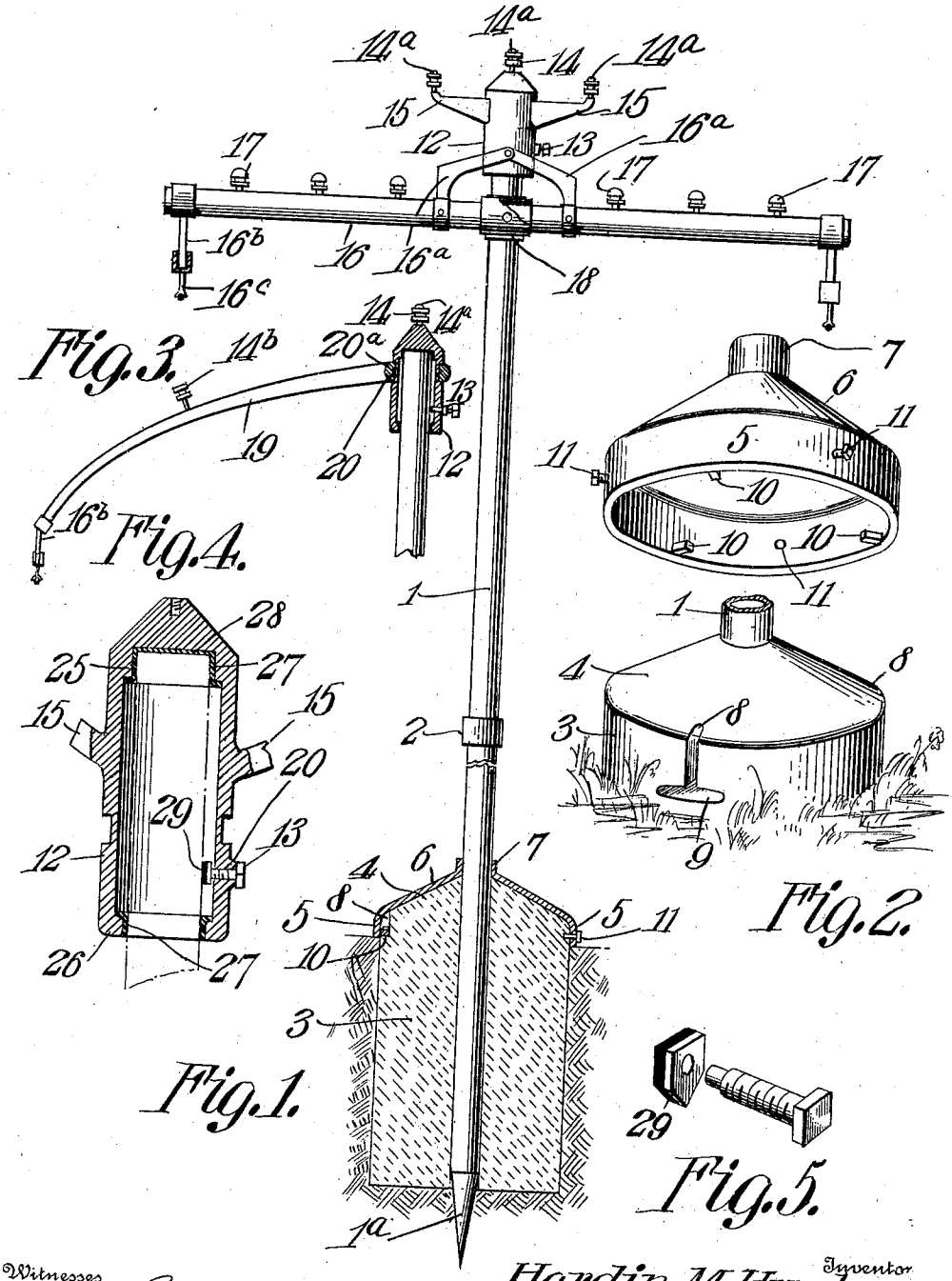

Fig. 3.

Fig. 4.

Fig. 1.

Fig. 2.

Fig. 5.

Witnesses

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BASE FOR POLES OR POSTS.

976,879. Specification of Letters Patent. Patented Nov. 29, 1910.

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To all whom it may concern:

Be it known that I, HARDIN M. HUGHS, a citizen of the United States, residing at Healing Springs, in the county of Benton and State of Arkansas, have invented a new and useful Base for Poles or Posts, of which the following is a specification.

This invention relates to poles for supporting overhead telegraph, telephone, electric light and other wires and cables; and has for its object to provide a strong and relatively economical metal pole for the purpose set forth, which pole when sunk into the ground, will be firmly upheld by a concrete base surrounding the pole with a cap covering the same to prevent the same from being chipped or broken. The cap has particular means for locking it to the base, which may be considered as the gist of this invention.

In the accompanying drawing: Figure 1 is an elevation of the improved pole with its concrete base shown in section. Fig. 2 is a perspective view of a portion of the base and its cap separated therefrom illustrating the means for fastening the latter on the base. Fig. 3 is a view of the upper end of the pole and pole cap with a trolley wire or electric light arm connected thereto. Fig. 4 is an enlarged vertical sectional view of the pole cap removed from the pole, the latter being shown in dotted lines. Fig. 5 is a perspective view of a detail of the invention.

Similar numerals of reference are used for the same parts in all the figures.

The numeral 1 indicates a pole made of one or more sections of gas pipe or other suitable metal or indestructible material, the sections being connected if desired by a screw coupling 2 in the usual manner. Or a pole constructed of metal to meet the particular demands of this invention for supporting electric wires of all kinds may be employed. The pole 1 is embedded in a base 3 made of cement, concrete or other plastic material to be buried in the ground, and has a metal extension 1^a on its lower end projecting through the base into the earth as a ground connection to protect the pole if struck by lightning. The height and diameter of the base is proportional to the height of the pole, the number of arms and the number and tension of the wires carried thereon and must in all cases be of sufficient size to resist any tendency to shift its position in the ground under the influence of the weight and tension of the supported wires and the force of the strongest winds. The base is preferably molded of cement concrete with a central hole extending from end to end to receive the pole 1 and its downwardly projecting pointed end 1^a. The base is buried in the ground ready to receive the metal pole which is now inserted in the bore.

That portion of the base which is above ground is made cylindrical and of a diameter to enter the downwardly projecting flange 5 of a conical cap 6 which covers the base and protects it from being broken and chipped, and assists in supporting the pole by means of a sleeve 7 at the apex of the cover. A plurality of equally spaced vertical notches 8, each joined to a horizontal slot 9 are molded in the base 3, the horizontal slots extending by preference on each side of the vertical notch. The horizontal slots may however extend on one side only of the vertical notch. Projecting inwardly from the flange of the cap 6 are studs or lugs 10 equal in number to the notches 8 in the base and similarly spaced.

When the cap 6 is placed on the base 3, the studs or lugs 10 are brought into position to enter the vertical notches 8 of the base 1 and pass down these notches as the cap is lowered until they enter the horizontal slots 9, the upper faces or sides of which are slightly inclined downwardly from the vertical notches so that when the cap is rotated, either to right or left, the studs 10 will bear against these faces and draw the cap down tightly on the top of the base. One or more bolts or set screws 11 are tapped through the flange 6 and are to be set up against the base between its notches to prevent the cap turning.

The top of the pole 1 is covered by a hollow cylindrical cap 12 surrounding the pole. The interior of the cap has a diameter greater than that of the pole and is provided therein with projecting ribs 25 and 26 at the top and bottom respectively, which ribs are covered with an insulating substance 27 such as glass, granite glaze, insulating tape, rubber, or other suitable material between themselves and the pole. The top of the pole is also insulated from the cap by suitable material 28. Making the cap 12 with interior ribs 25 and 26 to contact with the pole 1 enables the insulating material to be applied more effectively and give bet-

ter results than would be the case were the whole length of the interior of the cap to be insulated. The cap is held fixed on the pole by means of one or more set screws or bolts 13 passing through the sides of the cap against insulating plates 29 which bear on the pole. The outside of the cap is thickened or reinforced where the bolt or bolts pass through to give a longer bearing to said bolt or bolts and thereby more firmly secure the cap on the pole. The outer surface of the cap 12 is comparatively smooth except for the reinforcements 20 heretofore mentioned and short upwardly inclined arms 15 which carry on their ends insulators 14 fastened thereto by bolts or screws 14^a. The arms 15 are enlarged at their attachment to the cap to give sufficient strength to carry the heaviest wires and cables.

Below the cylindrical cap 12 are one or more cross arms 16, made preferably of gas pipe or other suitable metal or indestructible material commonly used for such purposes bearing insulators 17 of any approved style and preferably secured to said arms by bolts threaded thereinto. The cross arms 16 (one only being shown), are fastened to the pole 1 by metal couplings 18 of any approved type which embrace the pole and the cross arms and are attached to these parts in any convenient way, as by bolts. The cross arm may be insulated as at 18^a from the coupling 18. The cross arm 16 is further connected to the pole 1 by metal braces 16^a bolted to the cross arm on each side of the pole and extending upwardly and inwardly to the bottom of the cap 12 and fastened by a bolt to the side thereof which is reinforced at this point and has a perforation therethrough for the bolt. The bolt head is countersunk on the inside of the cap. These braces prevent the cross arms from bending under the weight of any unusual tension of the wires carried thereby. The cross arms 16 may carry on their ends or some other portion of their length depending brackets 16^b to which insulated trolley wire holders 16^c are fastened.

When a trolley wire or electric light arm 19 is supported by a pole, said arm is attached to a collar 20^a and may be integral therewith if desired. An insulator 14^b is, for convenience, attached to said arms 19, see Fig. 3, or two or more insulators may be mounted on the arm for holding the wires leading to an electric light, or the feed wires of a trolley line.

A wire supporting pole constructed as shown and described forms a strong and secure support for all manner of overhead wires whether for electrical purposes or otherwise. The concrete base gives the pole a firm hold in the earth, sufficient to withstand all strains to which it may be subjected without loosening its foundation; the conical cap protects the projecting base from cracking, breaking or chipping due to the effects of the weather, or by being struck, and assists also in supporting the pole. The pole cap prevents all electric currents passing along wires carried thereby from grounding through the pole owing to the complete insulation of the cap and prevents the entrance of moisture to the interior of the pole, it affords an excellent support for insulators carrying heavily charged wires, and finally it is eminently well fitted for the attachment of one or more projecting arms to hold electric lamps or trolley wires.

Moisture cannot act on the lower end of the pole below nor at the surface of the ground because of the concrete encasement and thus is the pole protected from the weakening effects of oxidation.

From the foregoing description, taken in connection with the accompanying drawings, it is thought that the construction and operation of my invention may be easily understood without a more extended explanation, it being understood that it is allowable to resort to minor changes to conserve the best interests of the invention without sacrificing any of the advantages or departing from the spirit thereof or infringing on other improvements heretofore.

What is claimed is:—

The combination with a pole or post, and a concrete base formed around the same and provided with spaced peripheral locking notches; of a metallic cap having a conical top and an annular flange to fit the base and a sleeve at its apex to fit the pole, lugs within said flange adapted to engage said notches, and set screws tapped through the flange and adapted to be tightened into contact with the base at points between its notches for the purpose set forth.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

HARDIN M. HUGHS.

Witnesses:
I. C. Casey,
W. W. Piel.