

C. J. ASCHAUER & W. H. LIENESCH.

POLE.

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1,001,603.

Patented Aug. 29, 1911.

Fig. 1.

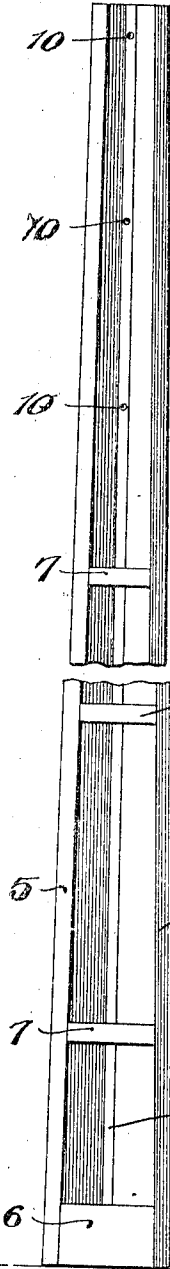


Fig. 2.

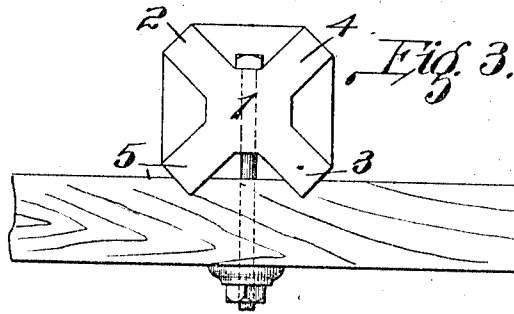
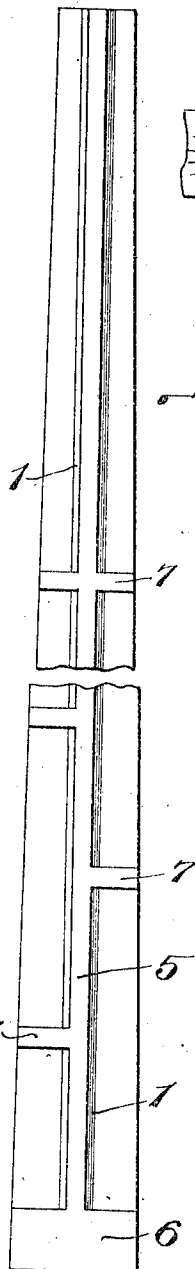
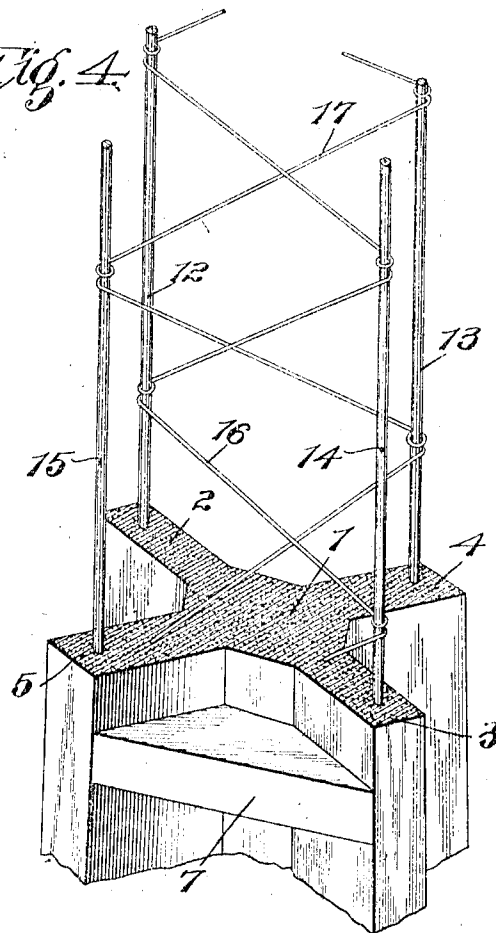


Fig. 3.

Fig. 4.



Attest.

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UNITED STATES PATENT OFFICE.

CHARLES J. ASCHAUER AND WALTER H. LIENESCH, OF DECATUR, ILLINOIS.

POLE.

1,001,603.

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To all whom it may concern:

Be it known that we, CHARLES J. ASCHAUER and WALTER H. LIENESCH, citizens of the United States, and residents of Decatur, Illinois, have invented certain new and useful Improvements in Poles, of which the following is a specification containing a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

Our invention relates generally to poles constructed of hardened plastic material, the special object of our invention being to construct a telegraph, telephone, or any pole intended for the support of electric conductors.

To the above purposes, our invention consists in certain novel features of construction and arrangement of parts which will be hereinafter more fully set forth, pointed out in the claim, and illustrated in the accompanying drawings, in which:

Figure 1 is an elevation of a pole constructed according to our invention; Fig. 2 is also an elevation; Fig. 3 is a top plan view, showing a cross arm applied to the pole; and Fig. 4 is a sectional perspective, showing the manner in which the reinforcing is accomplished.

As above stated, the pole is made of hardened plastic material, cast monolithic, and it is especially designed for telegraph, telephone and trolley line poles, being generally constructed up to forty feet in length.

Referring by numerals to the accompanying drawings: 1 indicates the intersection of reinforced beams of the pole, and formed integral therewith are rectangular longitudinal ribs 2, 3, 4 and 5. The rectangular longitudinal ribs 2 and 3 are formed directly opposite each other on axis of intersection of beams, as are likewise the rectangular longitudinal ribs 4 and 5, all of said ribs being of the same size and the same length, and gradually tapering from the base of the pole to its opposite end or top. Six inches in height at the base of the pole is made solid to afford weight and provide a firm setting in the ground.

Formed integral with the intersection 1 and the ribs 5 and 3, and located between said ribs at suitable distances apart are webs 7. Similar cross webs are formed between the ribs 3 and 4, 4 and 2, and 2 and 5, the said webs being alternately arranged.

Formed in the upper part of the pole are holes 10, through which the cross arms may be bolted, or any other connections be made which usually apply to poles of this nature, by which improved arrangement of providing two intersecting reinforced concrete beams, a light, strong, and durable pole is provided with a minimum amount of material, and permits the poles to be readily formed and erected in the field.

The cross webs 7 connecting the longitudinal ribs strengthen these ribs when the pole is being rolled into place, during transportation or when in use. They also answer as steps and afford a very convenient means for climbing the pole, as well, as a support for the usual "pike poles" used in elevating the poles into place, ready to be set into the ground.

In Fig. 4, we have illustrated a method of reinforcing the pole, from which it will be seen that in each of the longitudinal ribs 2, 3, 4 and 5, is respectively located a steel bar, 12, 13, 14 and 15; the bars 12 and 14 being connected together by heavy steel wire 16, and the bars 13 and 15 being similarly connected by heavy steel wire 17. These wires are attached to the main bars so as to form a trussed structure, and are embedded in the concrete in such a manner that tension or shearing stresses applied from any direction will be amply resisted.

A pole constructed according to our methods and improved construction as herein described requires a small amount of material, is light in weight, cheap to construct, easy to handle, proof against the elements, and is amply strong to resist wind pressure, rough usage in transportation or erection, or any working strains to which a pole of this nature may be subjected. When in use this pole may be readily scaled by means of cross webs 7 answering as steps for such purpose. The cross arms for electrical conductors, together with any other necessary attachments, may be easily applied and securely held in place.

Having fully described our invention, what we claim is:

A monolithic, cementitious pole, cruciform in cross section and tapering from end to end, integral cementitious webs between the arms of the cruciform-shaped pole forming a base, and integral cementitious webs at intervals throughout the length of the

pole and arranged alternately between the
pairs of arms, and a reinforce comprising
a rod extended the full length of each arm
and embedded therein and stay wires which
5 are continuous from end to end of the pole
and are secured at intervals throughout the
lengths of oppositely arranged pairs of the
said rods.

In testimony whereof, we have signed
our names to this specification, in presence
of two subscribing witnesses.

CHARLES J. ASCHAUER.
WALTER H. LIENESCH.

Witnesses:

E. L. CRUM,
F. R. WILEY.