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H. E. HAGEN ET AL

METHOD OF PRODUCING CONCRETE POLES

Original Filed Nov. 17 , 1919

Fig. 1.

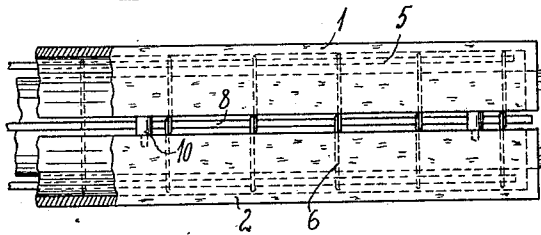


Fig. 2.

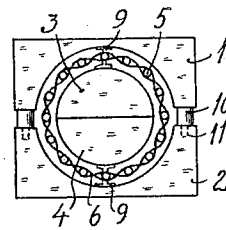


Fig. 3.

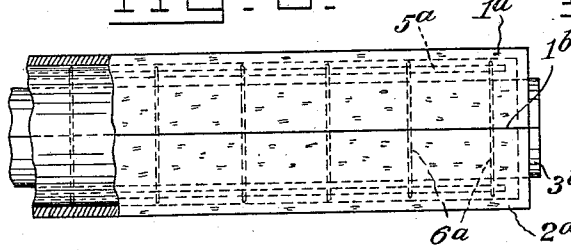


Fig. 4.

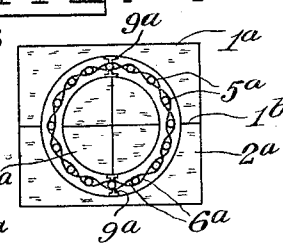


Fig. 5.

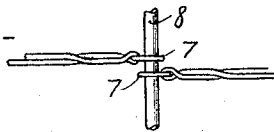
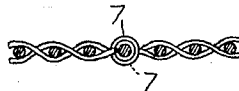


Fig. 6.



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METHOD OF PRODUCING CONCRETE POLES.

Application filed November 17, 1919, Serial No. 338,570. Renewed February 7, 1924.

To all whom it may concern:

Be it known that we, HANS ENGELHART HAGEN, civil engineer, and JACOB KJÖLSRUD, mechanician, citizens of Norway, residing at Arendal, Norway, have invented certain new and useful Improvements in Methods of Producing Concrete Poles, of which the following is a specification.

The present invention refers to a reinforced concrete pole or post intended for electrical lines and a suitable way of producing the same.

The invention is shown on the attached drawing in which:

Figure 1 shows a moulding frame with the reinforcement seen from the side.

Figure 2 is an end view of the same.

Figure 3 shows a modified form of construction seen from the side.

Figure 4 is an end view of this form.

Figures 5 and 6 show the connection between the reinforcements in the two halves in two projections standing perpendicularly to each other.

In the Figures 1 and 2 of the drawing —1— and —2— indicate the two halves of a moulding frame of a suitable conicity. —3— and —4— are the corresponding core halves. According to the Figures 1 and 2 the reinforcements of the two post halves are manufactured separately and are not connected before the end of the producing. The reinforcements consist of longitudinally arranged rods —5— which are mutually connected by means of wire nettings —6—. These nettings have loops —7— which project from the two halves of the moulding frame. The loops of the two halves can be connected with each other by means of special rods —8—. At the producing of the poles the reinforcement of each half post is supported by means of spacing devices —9—, whereupon the concrete is filled in. When the concrete is partly stiffened the cores are taken out and both half moulds containing

the castings are laid together. The one half mould has pins —10— with breasts —11—, which pins fit into recesses in the other half mould. In this way, when the two half moulds are laid together an intermediate space is formed between the same so that the reinforcement in the one half mould can be connected with the reinforcement in the other half mould by inserting the rods —8— through the corresponding loops —7—. Thereupon the intermediate space is filled up and the pole is finished.

According to Figs. 3 and 4 the moulds 1^a and 2^a are constructed to abut against each other as shown at 1^b, and the reinforcements 5^a and 6^a form a complete cylinder or a complete prism. Also here the reinforcement is supported by spacing devices 9^a. To facilitate driving out of the core 3^a, this may, especially with cores of larger diameter, be made up in sections.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is:—

A method of making a hollow concrete pole consisting in placing longitudinally extending bars and intertwined cross-wires in two semi-circular chambers, spacing said bars and wires from the curved surfaces of said chambers, placing concrete in said spaces to form with said bars and wires two half sleeves of reinforced concrete, permitting said concrete to harden, then placing the longitudinal edges of one half sleeve adjacent to the longitudinal edges of the other half sleeve and connecting the cross-wires of one half sleeve to the cross-wires of the other half sleeve, and placing concrete over the points of connection to provide a substantially cylindrical hollow pole.

In testimony whereof we affix our signatures.

HANS ENGELHART HAGEN.
JACOB KJÖLSRUD.