ERECTING POLES AND STUBS
WATER JET METHOD

Contents

1. GENERAL

1.01 This practice describes the water jet method of erecting poles and stubs.

1.02 When digging holes to full depth is impracticable because of caving soil or subsurface water, the water jet method may be used to an advantage.

2. SAFETY PRECAUTIONS

2.01 The safety precautions outlined in the sections "Erecting Poles and Stubs, General" and "Erecting Poles and Stubs, Pike Pole Method" should be observed.

3. POLE SETTING, WATER JET METHOD

3.01 To use this method there must be a water supply either at the job location or hauled to it.

3.02 A centrifugal pump driven by a gasoline engine can be used.

3.03 A nozzle (to be obtained locally) is necessary at the end of the pump's discharge hose. It has been found effective if the nozzle will reduce the outlet to about one inch when working in mud or muck. A 1/4-inch nozzle opening has been used effectively in wet subsurface sand.

3.04 A 6-foot length of 1-1/2-inch or 2-inch pipe fitted with a nozzle and coupled to the pump's discharge hose can be used to guide the jet of water or if the nozzle is fitted directly to the end of the hose it will be found helpful if it is lashed to a short pike pole handle.

3.05 Effective nozzles that can be used are:

(1) Standard fire hose nozzle.

(2) A nozzle made up of the appropriate reducer fittings, couplings, and pipe to produce the size jet opening desired.

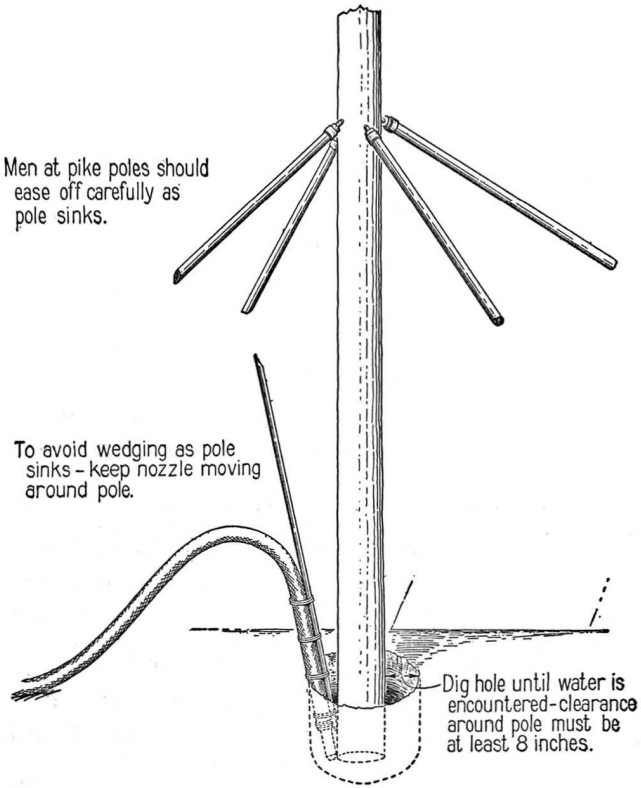
(3) A length of pipe to fit the discharge hose beaten down at one end to an opening of about 1-1/4 inch in diameter.

3.06 To set a pole with the water jet method proceed as follows:

(1) Dig hole of sufficient diameter to give approximately an 8-inch clearance around the pole until the soil begins to cave or until water is encountered.

(2) Set pole in this hole and hold it upright with pike poles or derrick.

(3) Direct a stream of water from a nozzle lashed to a short pike pole handle into the soil at the butt of the pole. The pole is gradually undermined and sinks. During this operation move the nozzle around the butt to avoid wedging and ease off carefully on the pole support. A pressure of 25 pounds per square inch has been found to work well with this method, although a quantity of water is more essential than a high pressure.



(4) When the pole has sunk to the desired depth, reduce the flow of water, remove the nozzle and shut off the water entirely.

(5) Shovel back the overflow of sediment around the pole. Usually no tamping is required.