BELL SYSTEM PRACTICES
Outside Plant Construction and Maintenance

SECTION G21.416.2
Issue 1, September, 1945
AT&T Co Standard

POLE MOVING FRAME
TRUCKS WITH T-TYPE DERRICKS

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1. GENERAL

1.01 Sections G21.416.1 to G21.416.3 describe the use of the PM Frame with winch and derrick equipped trucks for moving pole lines that carry open wire telephone plant.

1.02 This section covers pole line moves made with trucks equipped with T-type derricks.

1.03 Moving poles will, in general, consist of a pole removal operation followed by a pole moving operation. For methods to be employed in the removal of poles see Section G21.505.

2. SETTING UP DERRICK AND FRAME

2.01 Erect the derrick for operation in the **ground** position. The length of the derrick should be adjusted as required by conditions encountered on the job, such as ditches, embankments, curbs, grades, the width of the roadway, the height of the pole, position of the attachments, etc.

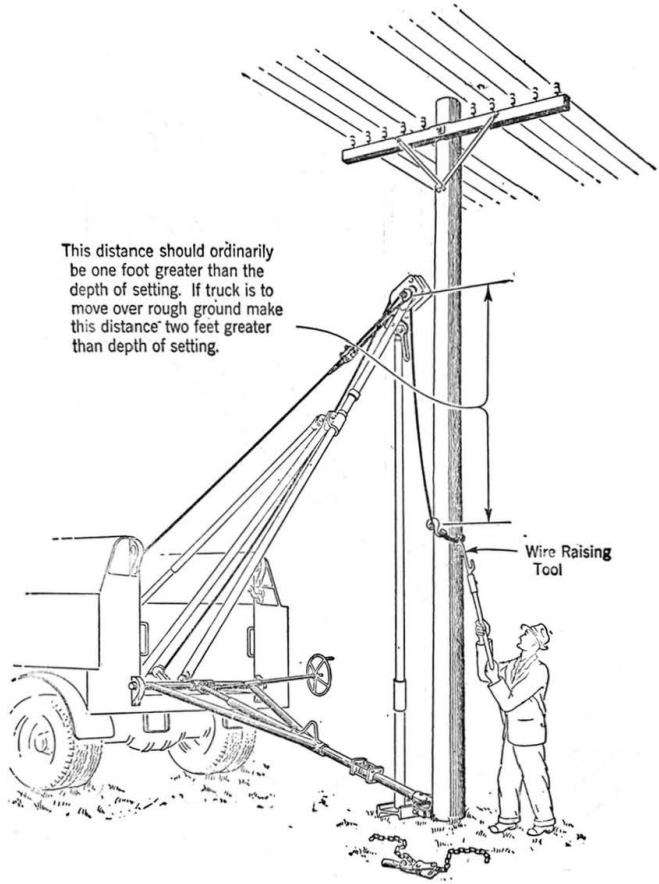
2.02 Attach the PM Frame to the truck. Insert winch line hook in the loop on the PM Frame and raise frame to a position slightly above the horizontal level.

3. POSITIONING THE TRUCK

3.01 A pole may be moved after it is suspended by the derrick and the frame by moving the truck forward or by backing the truck to the new hole depending on conditions encountered on the job. Position the truck so that the derrick head, the frame, and the truck are in line with the pole and the new hole. Place a range rod or other marker at the far side of the new hole to assist the truck driver to locate the new hole.

3.02 In positioning the truck, raise or lower the derrick as required, and keep the frame off the ground. After the truck is in place, lower the frame to the ground and remove the winch line hook from the loop of the frame. Position the derrick prop on the foot piece.

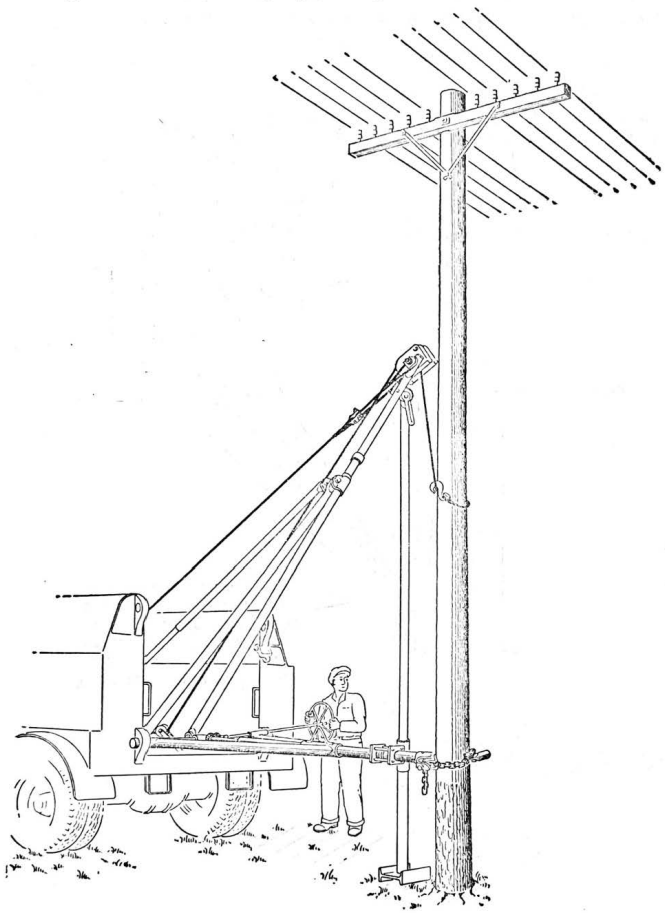
3.03 Attach the winch line to the pole. The length of winch line between the attachment point on the pole and the derrick head should be **1 foot greater than the depth of setting.** If the truck is to move over rough ground, this length of line should be 2 feet greater than the depth of setting to reduce strain on the line and tie wires. Use a wire raising tool to position the winch line and the hook at the proper location. If the hook cannot be positioned at the proper location to permit pulling the pole even with the prop extension in place a lower point of attachment should be used. After the grip of the ground has been broken, the hook should be shifted to the proper location before completing the pulling operation.



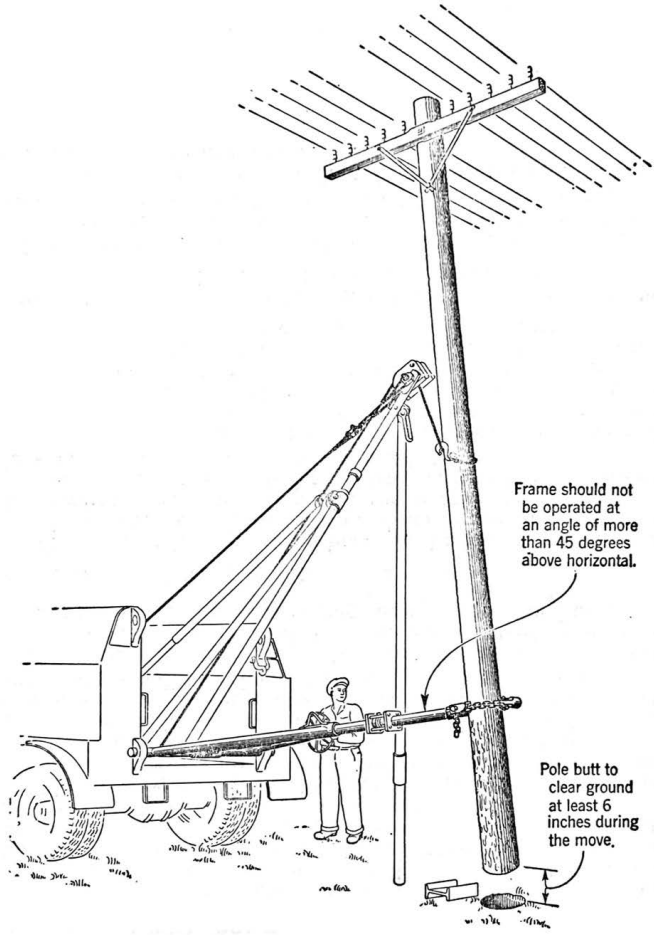
3.04 Adjust the PM Frame to the proper length and attach the frame to the pole. If the height of the pole, the weight of the pole and its attachment load, and the size of the truck used permit the frame to be extended to its maximum length, it is desirable to do so as the use of the frame in an extended position causes less tipping of the pole during the raising or lowering operation.

4. PULLING THE POLE

4.01 Start pulling the pole. If pole does not start easily, dig out around butt. Some conditions may require the use of a pole jack to start the pole. During the pulling operation, adjust the length of the frame by operating the hand wheel.



4.02 After the pole has been raised, take up on the boom line so that the prop and the pole butt will clear the ground during the move by at least six inches. The lower end of the prop may be tied to the main derrick leg, if desired.



5. MOVING THE POLE

5.01 Smooth out rough ground or lay planks or skids to provide a fairly smooth path for the truck. Poles adjacent to the pole to be moved, and corners introduced in a line during the pole moving operations should be supported or guyed temporarily.

5.02 Move the truck **slowly** toward the new hole. During the moving operation watch the equipment, and the pole and its attachments carefully, and if any indications of trouble or improper action of the equipment are noticed, stop the move. Check to see that everything is in good condition and correct any faulty conditions found before continuing with the move.

5.03 Stop the truck when the approximate location of the new hole is reached. Position the pole butt by maneuvering the truck and by adjusting the length of the frame.

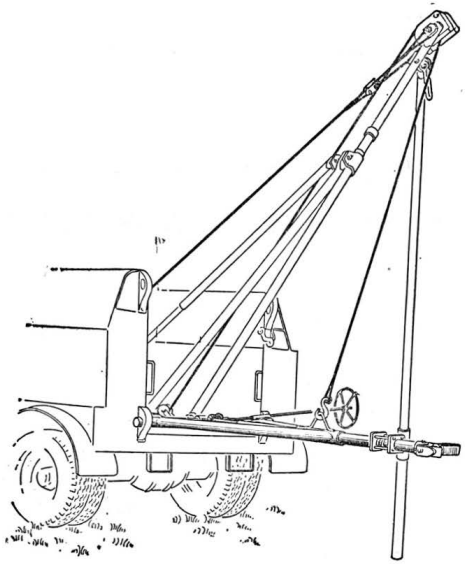
6. LOWERING THE POLE

6.01 Place a bar or butting board in the hole at the far side of the hole. Lower the pole **slowly** into the new hole by lowering the winch line and the boom line as required. During the lowering operation, adjust the length of the frame to keep the butt in the center of the hole.

Note: If the depth of the new hole is such that the PM Frame will strike the ground before the pole butt rests on the bottom of the hole, stop the lowering operation when the frame is about 6 inches above the ground. Detach the frame, adjust the position of the pole in the hole, and proceed with the lowering operation.

6.02 Shift the butt to the desired position in the hole by operating the hand wheel of the frame or by using a bar.

6.03 Detach the frame and the winch line from the pole, and pike the pole. Remove bar or butting board, and insert winch line hook in the loop of the frame, and take up on the winch line to lift the frame off the ground to a position slightly above horizontal.



6.04 Proceed to the next location, and repeat the above operations beginning with Part 3.

6.05 Poles moved to new locations may be backfilled and tamped at any time after the moving operations have advanced two or three poles beyond the pole at which backfilling and tamping are to be done.

7. CORRECTING FAULTY CONDITIONS

7.01 Upon completion of the pole moving operations, make an inspection of this section of the line and correct any faulty conditions which may have been introduced. Among the items to look for are the following:

(a) Insufficient Sag or Excessive Sag. Resag the wire if it is found that the sag in this section varies appreciably from the sag that exists in the section of the line that was not moved.

(b) Broken, missing, or loose tie wires, insulators, and insulator pins.

(c) Slack guys.

(d) Any other defects that might interfere with service.