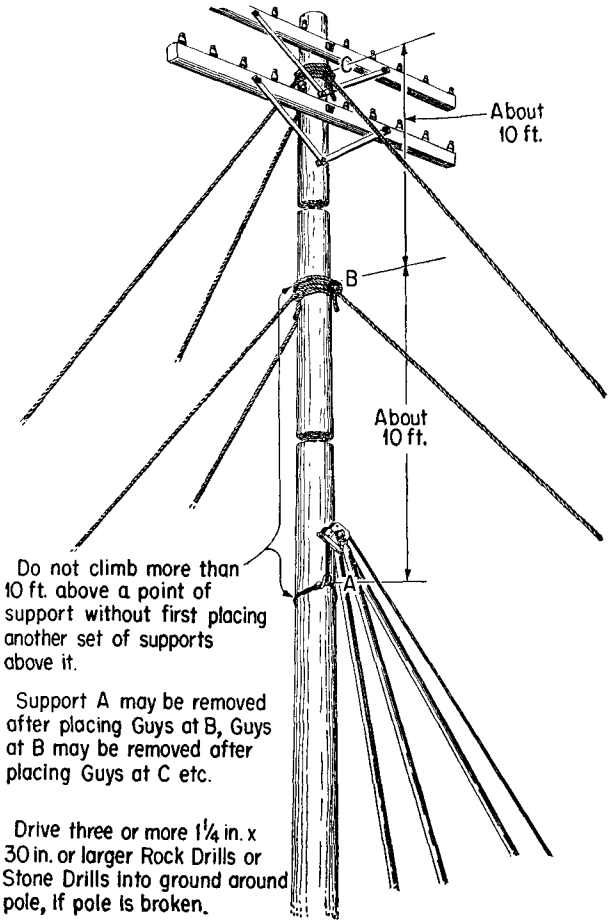
SAFEGUARDS TO BE TAKEN BEFORE CLIMBING POLES TEMPORARY SUPPORTS



2. PRECAUTIONS

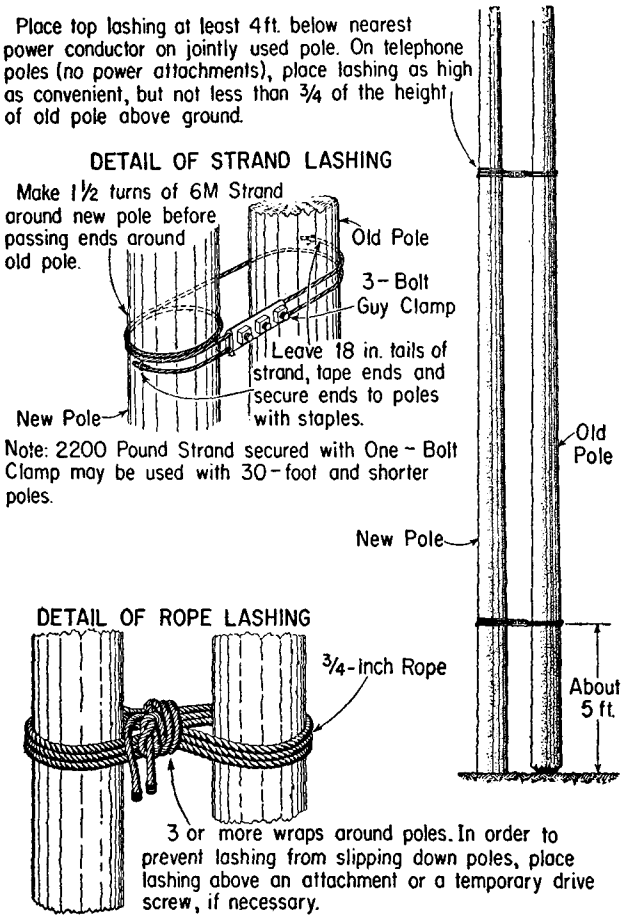
2.01 Where temporary supports are used to reinforce a pole, it is important that a workman should avoid climbing to a level more than 10 feet (measured to the workman's feet) above the point at which the temporary supports are attached. If necessary to work at a greater height above existing supports, place additional supports at a point approximately 10 feet above those supports as shown on Page 2.

3. METHODS OF APPLYING TEMPORARY SUPPORTS

3.01 The various methods of supporting poles temporarily are described in detail in the following:

Lashing Weakened Poles to New Poles

3.02 A weakened or old pole should be supported by lashing it to a new pole, if the new pole is set within 3 feet of it, or if the new pole has been placed in the old pole hole. The two poles should be lashed together as shown in the following illustration.



3.03 In order to place the upper lashing, climb the new pole. Do not, under any circumstances, work from the old pole until both upper and lower lashings have been completed. Rope lashings should be used only where the old pole is to be removed within a reasonable period of time (usually a few days) or where there might otherwise be an electrical hazard in passing the sling around the poles.

Supporting Pole by Means of Pole Derrick

3.04 A pole derrick can sometimes be used to advantage for temporarily supporting a pole. When using a derrick for this purpose, the winch line should be attached to the pole, working from the ground, and raised into position by means of a pike pole or wire raising tool. The winch line should be raised as high on the pole as practicable, but in no case should the eye of the winch line or its serving be permitted to enter the derrick sheave. See illustration in Part 2.

3.05 The point of attachment of the winch line should, if practicable, be several feet or more above the balance point of the pole. The location of the balance point of a pole will vary with the taper and general shape of the pole. In a pole, such as a southern pine, which ordinarily has a uniform but small amount of taper, the balance point will be close to the midpoint of the pole. In a pole with a greater amount of taper or a heavy butt, the balance point will be somewhat lower. For example, in a 35-foot southern pine, Douglas fir or western larch pole (all of which normally have a small taper), the balance point will usually be 1 to 2 feet below the midpoint that is, about 19 feet below the top of the pole. In a 35-foot western cedar pole having a somewhat greater amount of taper or a heavy butt, the balance point may be two to three feet below the midpoint. It should be noted, however, that **the balance point of a pole broken off at the ground line is close to the midpoint of the portion of the pole projecting out of the ground** and that if the pole carries any plant such as wires or cable, the balance point may be considerably higher, thus necessitating the use of supplementary rope guys as described in Paragraph 3.06.

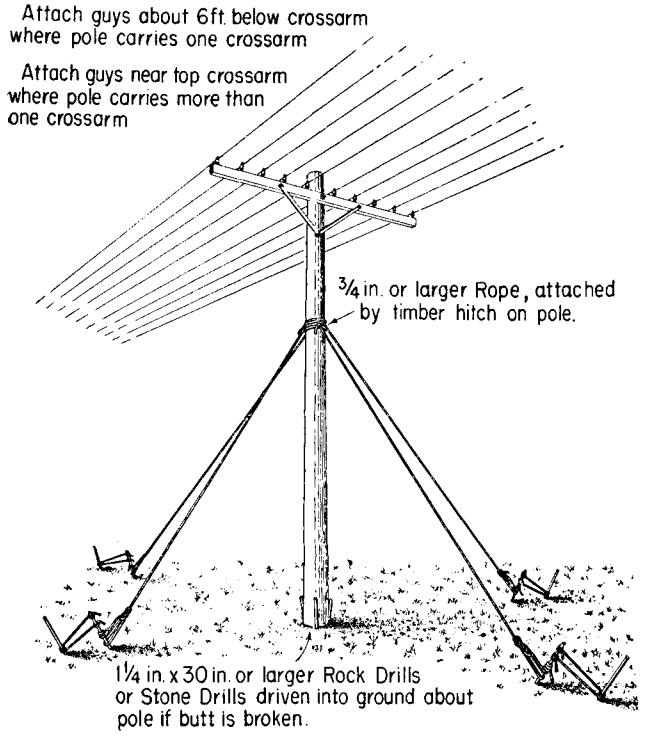
3.06 If it is not practicable to attach the winch line sufficiently above the balance point to ensure stability of the pole with a workman in position on the pole, temporary rope guys should be attached to the pole either close to the ground line or far enough above the winch line attachment to ensure the required stability. The positioning of the temporary guys above the winch line should be done working from a point below the level of the winch line attachment, using a pike pole or a wire raising tool.

3.07 A PM Frame may be used in conjunction with a pole derrick instead of using temporary rope guys.

Use of Temporary Guys

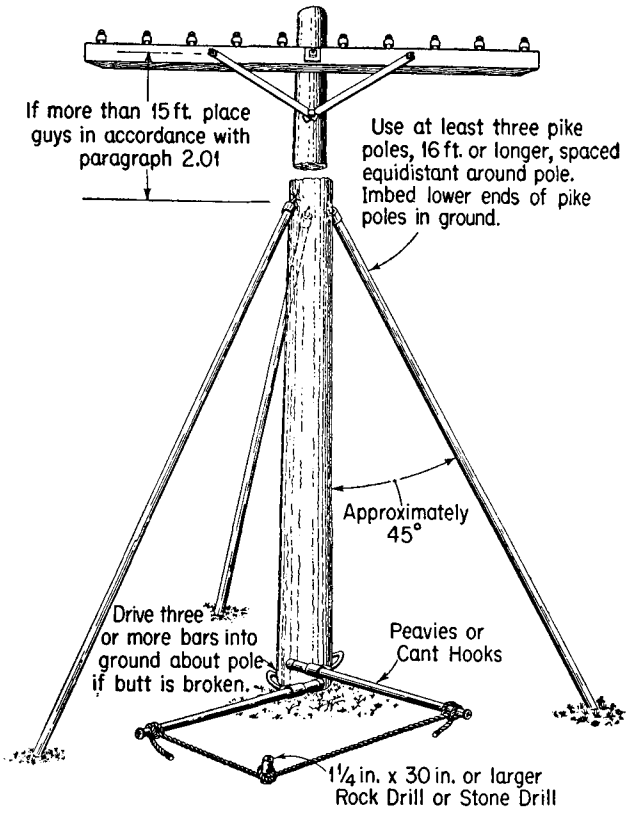
3.08 Rope or strand guys may be used as shown in the following illustration. The temporary guys may be attached for anchorage purposes to other poles, trees or stumps that are in sound condition, sufficiently strong and in the desired position for the attachment of the guys. Where such anchorages are not available, use can sometimes be made of one or more bars driven into the ground as described below. The number of bars required depends upon the load and soil conditions. The use of two bars for each guy is generally recommended, although one will be sufficient if the load to be supported is very light and the ground into which the bar will be driven is firm.

3.09 To facilitate the operation of attaching the guys to the pole, it may be advantageous in some cases, to support the pole temporarily by three or four pike poles or a pole derrick. In other cases, the rope guys may be raised into position by means of a wire raising tool. **Do not climb an unsupported questionable pole.**



Pike Pole Braces

3.10 Pike poles placed as shown below can be used for bracing purposes. Either three or four pike poles should be used, and they should be evenly distributed around the pole. The pole should be prevented from rotating and thus disengaging the pike poles, by means of two cant hooks placed as indicated in the illustration.



Place clove hitch on bar driven into ground. Draw rope taut and place clove hitch on handle of each peavy or cant hook.

Combination of Bracing and Guying

3.11 Where the slope of the ground or right-of-way or other conditions are such that three or four temporary guys or pike pole braces can not be placed, a combination of a rope guy and two pike pole braces placed as shown on Page 8 can sometimes be used to advantage. The pole should be prevented from rotating and thus disengaging the pike poles, by means of two cant hooks, placed as indicated in the illustration. The rope guy may be raised from the ground into position by means of a wire-raising tool. **Do not climb the pole to attach the guy.**