

**BELL SYSTEM PRACTICES**  
**Outside Plant Construction**  
**and Maintenance**

**SECTION G52.505**  
**Issue 1, December, 1930**  
**Standard**

# AERIAL CABLE REMOVAL

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## 1. GENERAL

1.01 This practice sets forth methods and safety precautions to be followed in the removal of aerial cable.

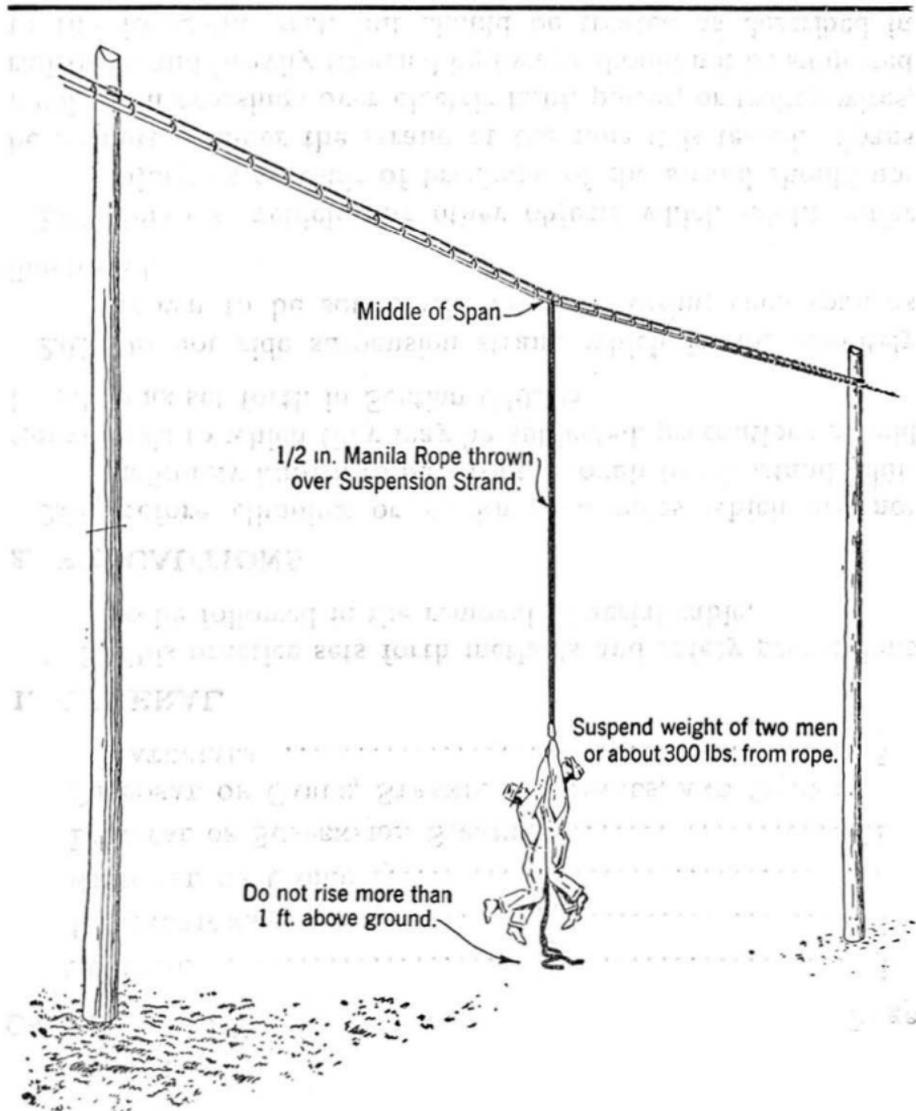
## 2. PRECAUTIONS

2.01 Before climbing or working on poles which are not definitely known to be strong enough to withstand additional loads to which they may be subjected, precautions should be taken as set forth in Section G10.305.

2.02 Do not ride suspension strand which is not definitely known to be sound without first testing each span as illustrated.

2.03 Persons, vehicles or other objects which might suffer injury as a result of breakage of the strand should not be permitted under the strand at the time it is tested. Spans involved in crossings over electric light, power, or trolley wires, railroads, and heavily traveled highways should not be subjected to the foregoing test, but should be treated as described in paragraph 3.04.

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2.04 If practicable unbalanced loads on poles should be avoided. Where loads of this nature cannot be avoided compensating guys shall be placed.

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### 3. REMOVAL OF CABLE

3.01 A decision should be reached as to whether a cable is to be reused in advance of undertaking its removal. A cable which is to be reused should be removed in sections as long as practicable. Reuse of cable containing numerous splices or cable equipped with distributing terminals at frequent intervals is as a rule not justified. It may, at times, be necessary to inspect a cable by riding the suspension strand in order to determine whether its condition warrants reuse.

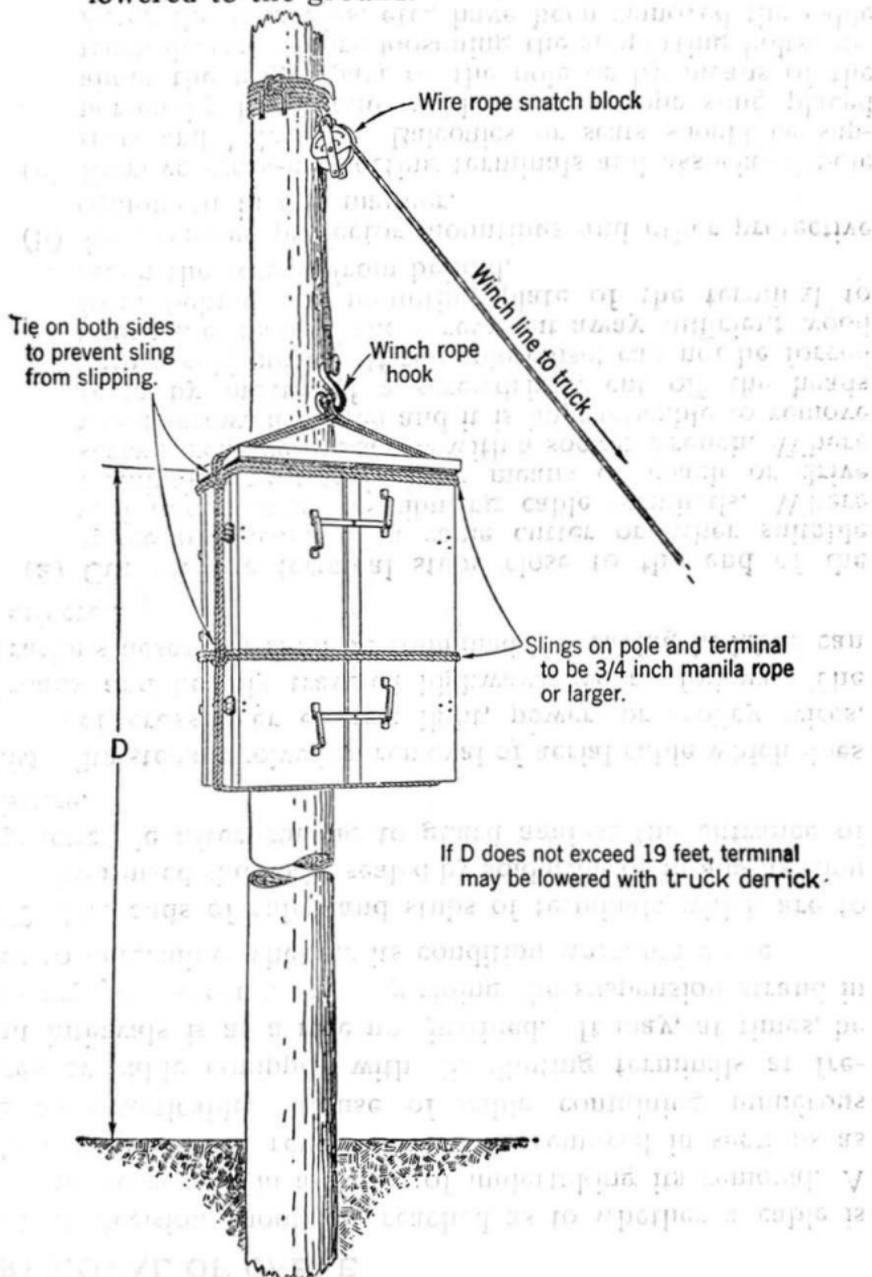
3.02 The ends of cable and stubs of terminals which are to be reused should be sealed by soldering or taping as soon as practicable after cutting to guard against the entrance of moisture.

3.03 The steps involved in removal of aerial cable which does not cross over electric light, power, or trolley wires, railroads and heavily traveled highways are as follows. The operations described shall be combined if a saving in labor can be effected.

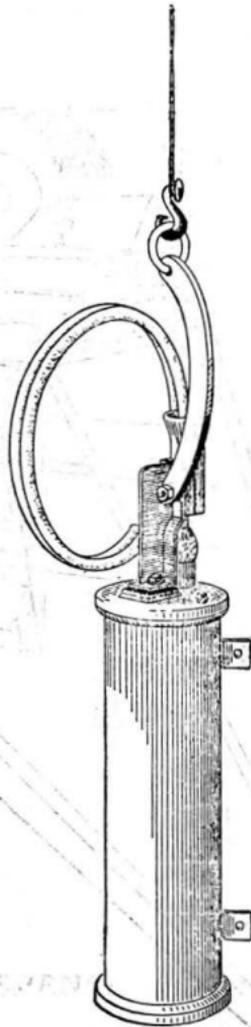
- (a) Cut off the terminal stubs close to the end of the splice by means of a cable cutter or other suitable tool and remove distributing cable terminals. Where terminals are attached by means of coach or drive screws, remove the screw with a socket wrench. Where wood screws are used and it is impracticable to remove them by means of a screwdriver, cut off the heads with a cold chisel. If the cold chisel can not be forced under the head of the screw, cut away sufficient wood from behind the mounting plate of the terminal to reach the screws from behind.
- (b) Also remove protector mountings and other protective equipment in this manner.
- (c) Remove cross-connecting terminals and associated pole seats and balconies. Balconies or seats should be supported by block and tackle from a rope sling placed about the upper part of the pole or by means of the truck derrick before loosening the supporting bolts, etc. After the balconies, etc., have been removed the cable should be cut as near its point of entrance to the ter-

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minal as practicable. The terminal should then be supported as shown below, detached from the pole and lowered to the ground.

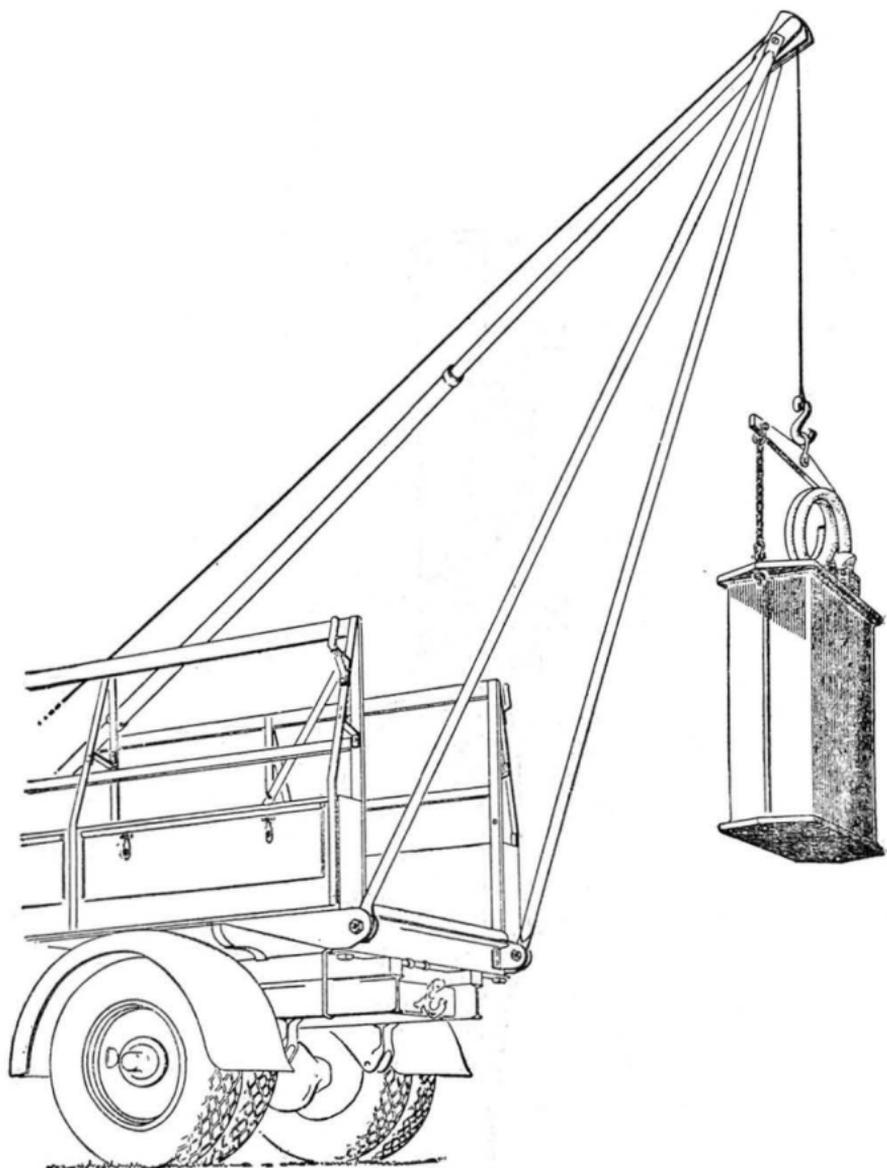


- (d) Cut stubs of load coil cases as near as practicable to sleeve of splice and remove load coils in the manner shown below.

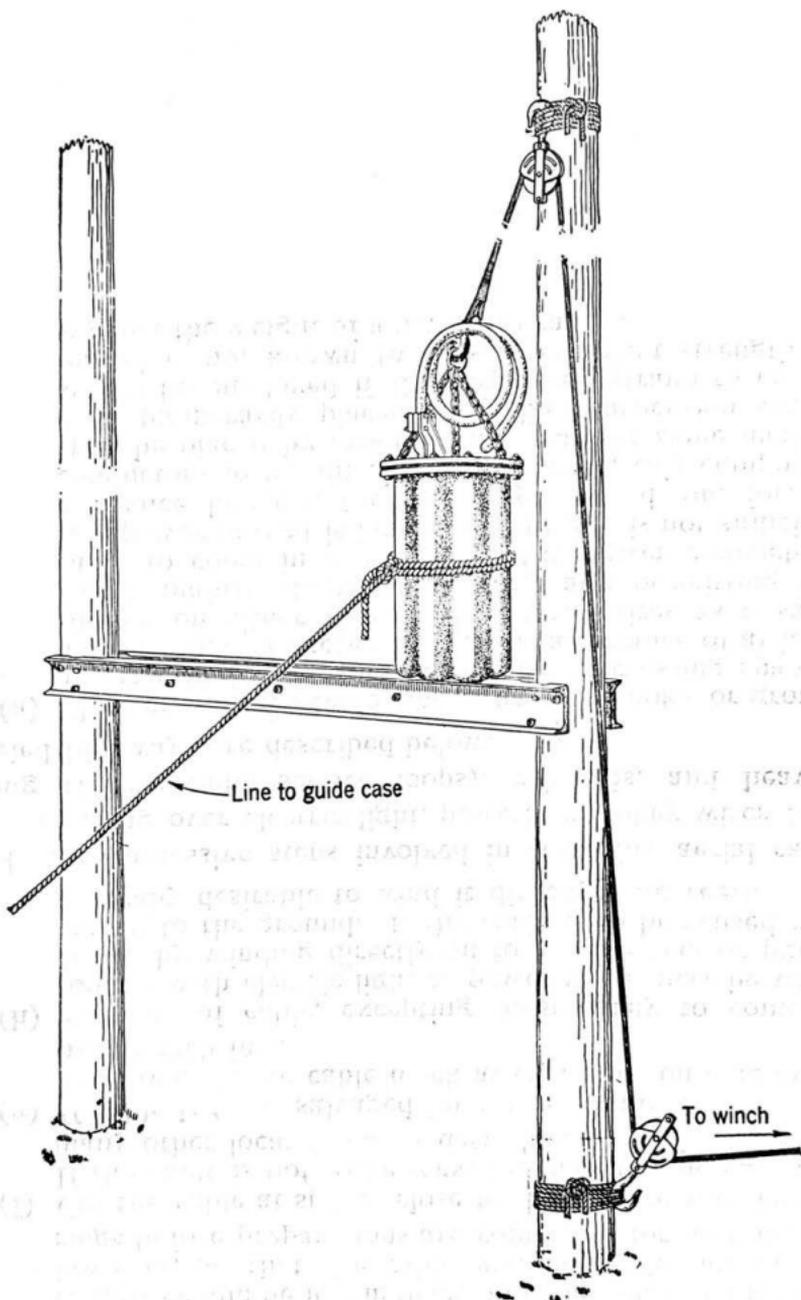


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at this time we have not been able to find any other information on the  
subject of aerial cable removal. It is possible that this information is  
contained in some other document or that it has been lost.



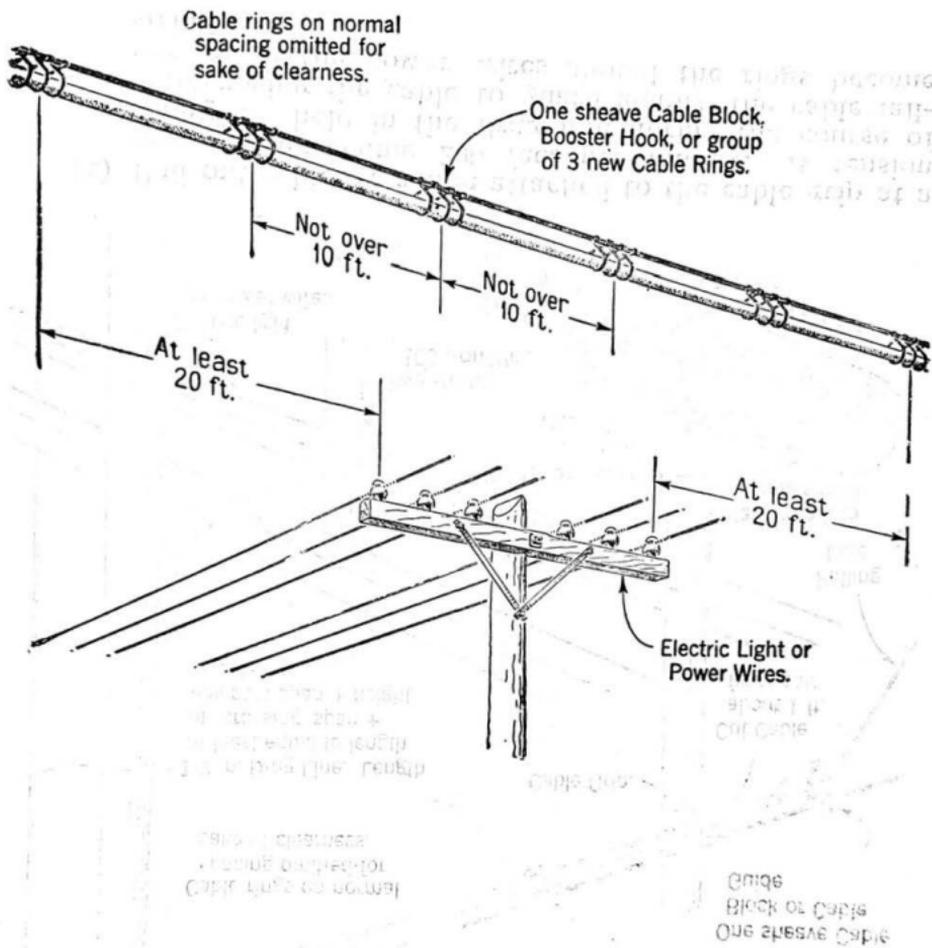
## AERIAL CABLE REMOVAL

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- (e) Remove grade clamps, ties, and bonds. Enough grade clamps should be left in place on cables on steep grades, however, so that the cable will not slide out of the rings before preparations are completed for its removal.
- (f) Cut the cable at splices close to the ends of the sleeves. If the cable is not to be reused it may also be cut at as many other locations as is desirable.
- (g) If cable is to be salvaged for reuse or is of a large size place one sheave cable block at each pole on side away from winch line.
- (h) Sections of cable, excepting those likely to come in contact with electric light or power wires, may be withdrawn by winding directly on to a cable reel or pulled out on to the ground. If the cable is to be reused it is generally desirable to wind it directly onto reels.

3.04 The successive steps involved in removing aerial cable crossing over electric light, power, or trolley wires (excluding electric light service loops), railroads, and heavily traveled highways are described below.

- (a) Place one-sheave cable blocks, booster hooks, or groups of three undeteriorated cable rings in crossing span at intervals not to exceed 10 feet for a distance of at least 20 feet on either side of the power wires as a safeguard against old rings breaking and permitting the cable to come in contact with the power conductors. If a power hazard is involved and there is not sufficient clearance between the suspension strand and foreign conductors to permit riding the strand, this equipment shall be placed by means of ladders; the same method or a temporarily placed paralleling suspension strand should be employed if the suspension strand to be removed is not known to possess sufficient strength to support the weight of a man with safety.

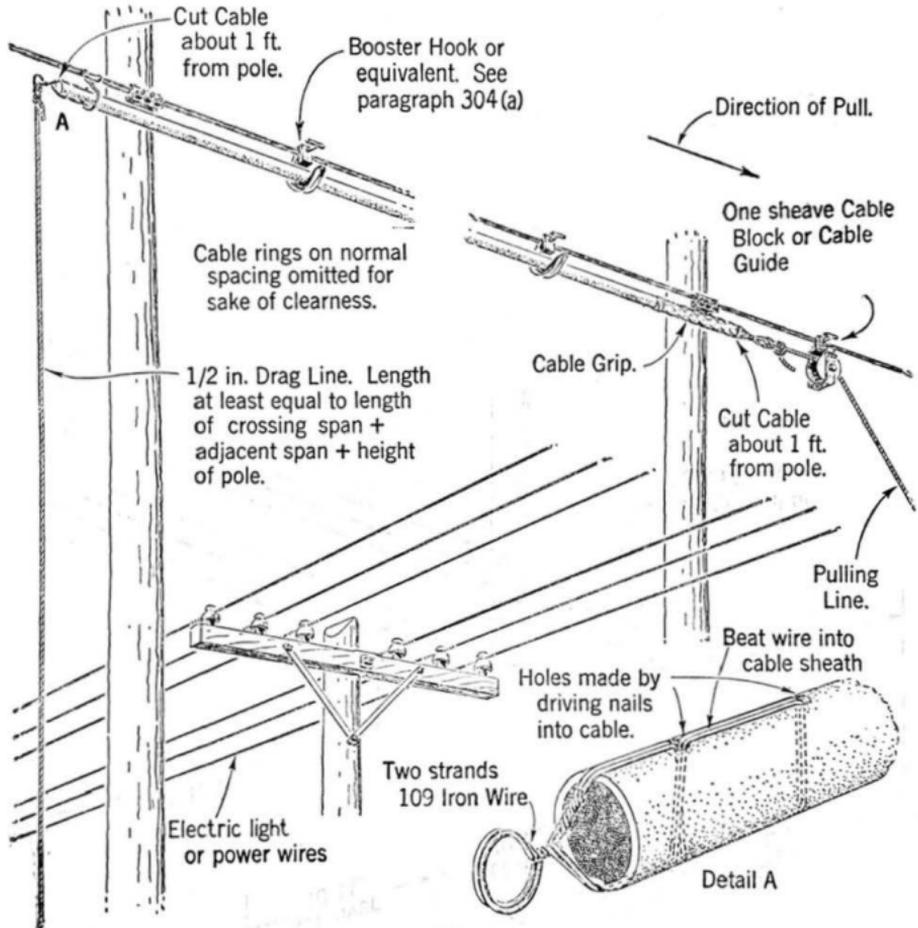


of cable rings and at a distance of 20 feet from the  
 cable where the ring is to be placed. One sheave cable block  
 the bottom of the ring and from the bottom of the  
 is to be placed to the bottom of the sheave cable ring  
 to the wire from the cable and the bottom of the  
 ring at one end of the cable and the other end of the  
 (p) One cable ring and one sheave cable block from wire

VERTICAL CURVE BELOW

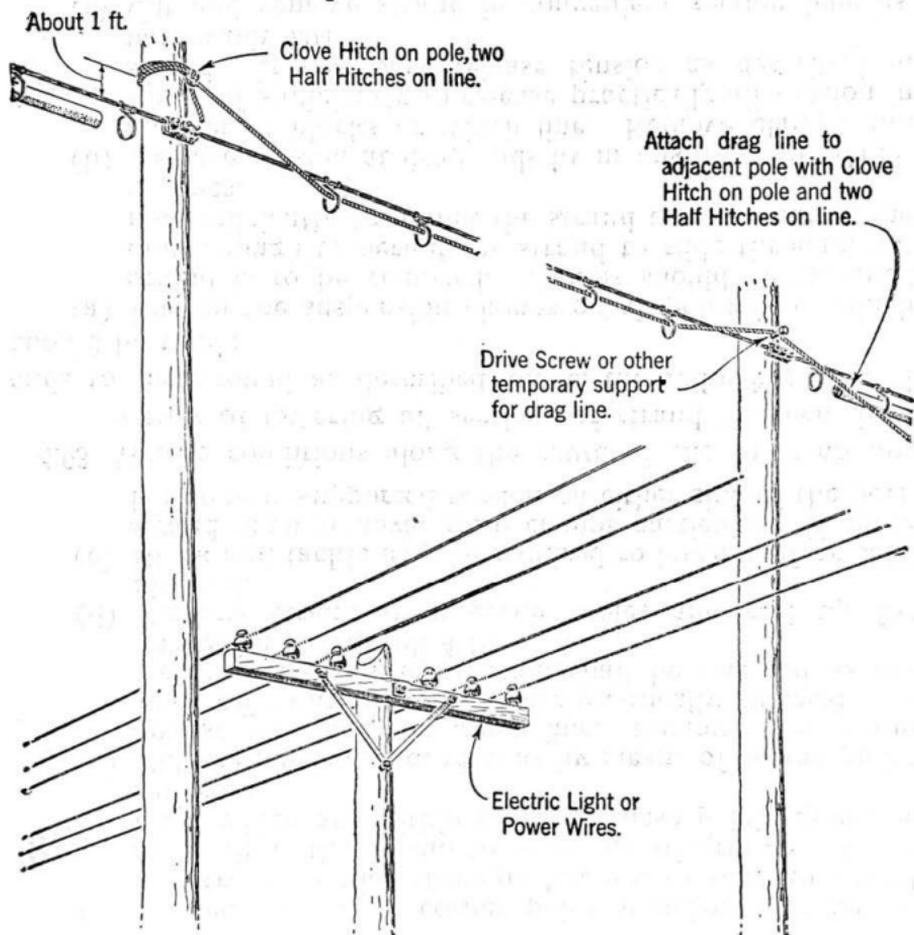
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- (b) Cut cable near each crossing pole. Place iron wire loop at one end of cable and a cable grip on the other. To the wire loop, attach a drag line the length of which is at least equal to the length of the crossing span plus the length of the adjacent span plus the height of the cable above ground. Also place 1-1 sheave cable block or cable guide and straightener as shown below.



- (c) Pull out cable by a line attached to the cable grip at a rate not exceeding 200 feet per minute. A tension should be held in the drag line during the course of withdrawing the cable to guard against the cable falling on to the power wires should the rings become stripped.

(d) The drag line should be left in rings as its use is required during removal of the suspension strand from the crossing span. It should be drawn taut and attached to the poles as shown below.



#### 4. REMOVAL OF SUSPENSION STRAND

4.01 Before proceeding with either of the methods described below, crossings over electric light, power, or trolley wires, railroads, and heavily traveled highways should be checked to see that rope placed in accordance with 3.04 (d) is drawn taut so that strand will not sag onto power conductors or create other hazards. Care should also be exercised to see that no unbalanced stresses are introduced which may cause breakage of poles.

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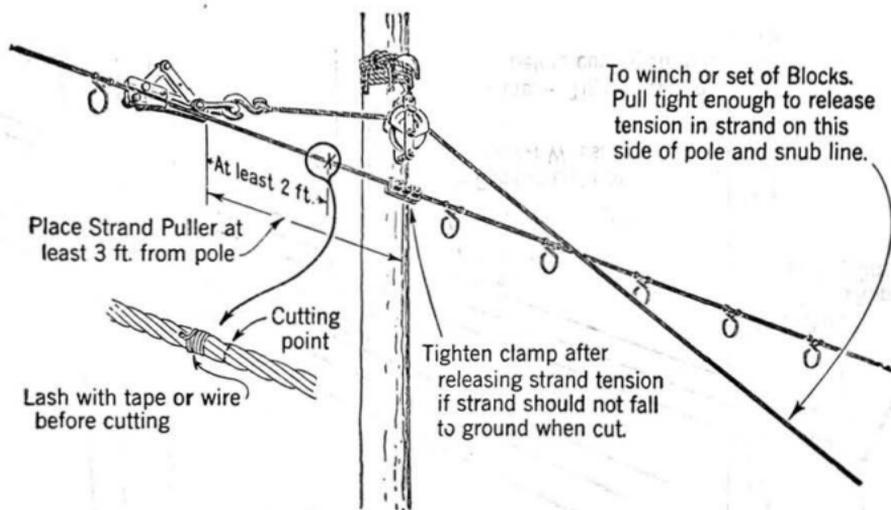
4.02 Where there are no crossings over electric light, power, or trolley wires, railroads, or heavily traveled highways and other conditions permit, it is usually preferable to remove strand by lowering it to the ground all along the line. The successive steps involved in this method are as follows:

- (a) Release strand from clamps and poles in straight sections. After strand has been released at three adjacent poles, the sag will generally be sufficient to permit the strand to reach the ground.
- (b) Loosen clamps at corner poles sufficiently to permit the strand to slide through, but not to such an extent as to allow the strand to jump out of grooves. Cable rings which are within reach of these poles should be removed.
- (c) Release tension at dead ends by means of strand puller and set of blocks or winch line. Remove clamps and slack off sufficiently to release practically all tension in strand. If necessary tension shall be released as described in paragraph 4.04.
- (d) Remove strand from corner poles and reel up for disposal.
- (e) Block and tackle may be required to lower 16M or 25M strand upon removal from clamps particularly if there is a long unsupported section on either side of the pole.

4.03 Where conditions along the route of the cable do not permit of lowering all sections of strand between dead ends to the ground as described above, the following method should be used:

- (a) Loosen the suspension clamps on all poles from which strand is to be removed. Clamps should be loosened only enough to permit the strand to slide through, but not sufficiently to permit the strand to come out of the grooves.
- (b) Release tension at dead ends by means of strand puller and set of blocks or winch line. Remove clamps and slack off sufficiently to release practically all tension in strand. If necessary release tension as described in paragraph 4.04.
- (c) Cut and remove strand in convenient section lengths. If conditions will not permit of dropping the strand to the ground as it is cut it should be supported by tightening the clamps adjacent to the cutting points or by means of strand pullers and block and tackle.

4.04 If in removing strand by either of the foregoing methods it is found impracticable to slack off the strand at dead ends it may be cut at an intermediate point in the manner illustrated. This method should also be used if slackening at dead end has not released the tension sufficiently to permit cutting.



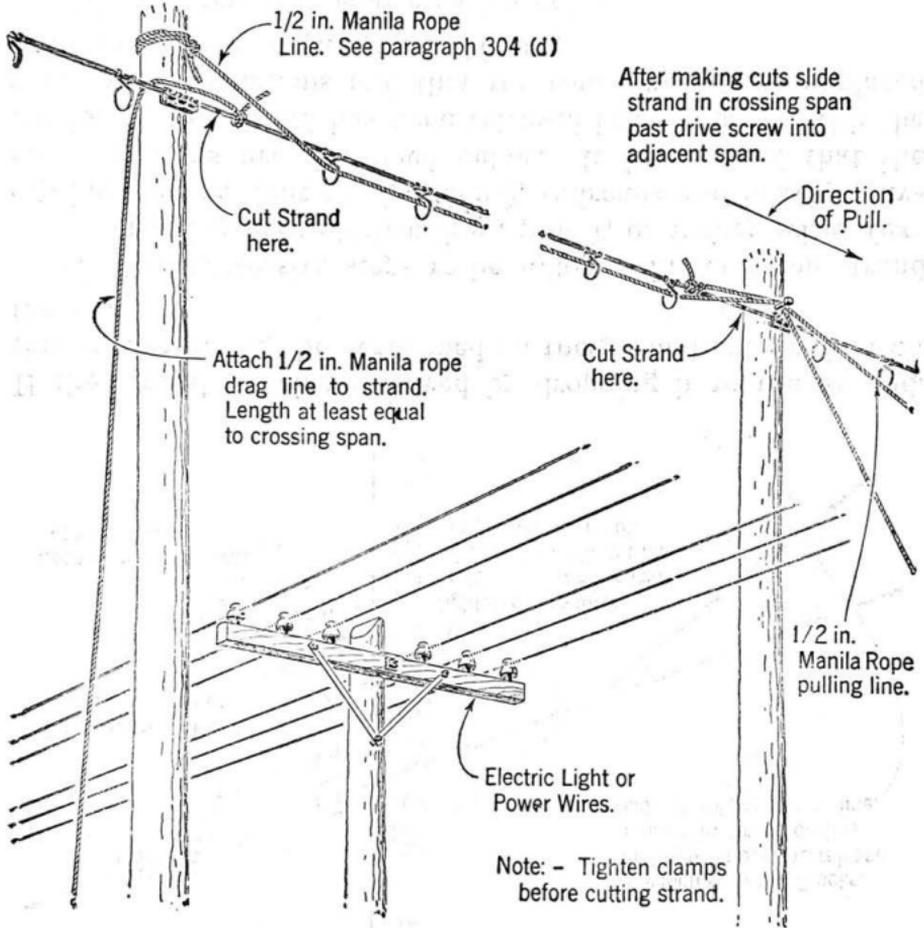
If the strand is being removed by dropping it to the ground, this operation may be performed on the ground rather than on the pole.

4.05 The successive steps to be followed in removing strand crossing over electric light, power, or trolley wires (excepting electric light service loops), railroads and heavily traveled highways are described below. It is assumed that the tension in the strand has been released in accordance with the preceding instructions and that the rope line has been placed in accordance with paragraph 3.04 (d).

- (a) Tighten clamps at crossing poles.
- (b) Cut strand at each crossing pole on side toward crossing.
- (c) Attach a manila rope free from metallic strands 1/2 inch or larger to each end of strand in crossing span. Pull strand from crossing span toward adjacent span in which rope support has been placed, holding sufficient tension in 1/2 inch drag line to prevent strand from sagging onto power wires should rings become loosened.

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It is necessary that a man be on the crossing pole toward which the strand is being drawn to pass cable rings over drive screw. RUBBER GLOVES SHOULD BE WORN BY MEN ON PULLING LINE AND BY THE MAN ON POLE whenever an electrical hazard exists.



## **5. DISPOSAL OF CABLE, STRAND, TERMINALS, AND OTHER MATERIALS**

5.01 Cable should be disposed of in accordance with current routines depending upon whether it is to be junked or reused.

5.02 Strand, cable rings, and suspension bolts are generally unfit for reuse after removal, and should be disposed of to the best advantage.

5.03 All terminals should be returned to the storeroom.

5.04 If material is disposed of along the route of the cable, it should be done in such a manner as not to affect public relations adversely.