BELL SYSTEM PRACTICES
Outside Plant Construction and Maintenance

SECTION G23.125.1
Issue 1, March, 1961
AT&TCo Standard

PATENT GUY ANCHORS
GENERAL

Contents **Page**

1. GENERAL

1.01 This section covers the general requirements for the use and installation of patent guy anchors formerly covered by Section G23.125, hereby canceled.

1.02 Specific requirements for the different types of patent anchors, namely: expanding, screw, swamp and plate, are covered in a separate section for each type.

2. FIELD OF USE

2.01 Expanding-type anchors are, in general, satisfactory for use in the average soils encountered. They are not satisfactory for use in:

(a) Swampy soil.

(b) Soil which caves badly when boring the hole.

(c) Locations where the drainage indicates the soil will be very wet to the depth of the anchor certain seasons of the year.

2.02 Screw-type anchors fall into two categories:

(a) A 4-inch integral type and a 6-inch wrench type for use with galvanized wire guys or 2.2M strand respectively. These anchors may be installed by hand or with power diggers.

(b) 9, 11, 13 and 15-inch wrench-type anchors for use with 6 to 16M strand or combinations of strand up to 16M. They are designed for power digger installation because of the torque required to turn them into the ground.

These anchors are suitable for use in relatively rock-free soils, such as firm clay, loam or sand.

2.03 Swamp anchors are a screw-type anchor designed for use in very wet or swampy locations.

2.04 Plate-type anchors are satisfactory for use under the same conditions as the expanding anchors and in very hard packed soils in which difficulty in expanding the latter may be experienced. In general, they are not as economical as the other types.

3. GENERAL RULES FOR INSTALLING ANCHORS

3.01 After providing for the proper clearances as given in Section G10.301, "Clearances for Aerial Plant," Locate anchors at the point desired from a construction standpoint, where possible, as follows:

(a) Away from traveled ways to minimize interference with movements of people, machinery, automobiles, etc.

(b) Near property lines, fences, barns, garages, etc., on private property so that guy will be as unobstructive and inconspicuous as possible.

3.02 Install anchors so that the guy rod is as nearly as possible in line with point of attachment of guy on pole without bending rod.

3.03 When conditions permit, the lead of the guy should equal the height, or $\frac{\text{Lead}}{\text{Height}} = 1$ (see Section G23.105) for corner and deadend guys; and a $\frac{\text{Lead}}{\text{Height}} = 3/4$ for storm guys. If practical, avoid having a $\frac{\text{Lead}}{\text{Height}}$ greater than 1-1/4 as the decrease in strength of guy required for higher ratios is very small.

3.04 Where the $\frac{\text{Lead}}{\text{Height}}$ is about 1 and the anchors are set to the depths recommended, the eye of the rod should, in general, project about 6 inches above the ground.

3.05 Where the $\frac{\text{Lead}}{\text{Height}}$ is greater than 1 and in a few cases where it is about 1, it will be necessary to decrease the depth of setting slightly so that the eye of the rod will project about 6 inches above the ground.

3.06 Where the $\frac{\text{Lead}}{\text{Height}}$ is less than 1, a greater length of the rod will project but the portion above the ground should not, in general, exceed 12 inches.

3.07 The guy rod should be turned so that the eye and the 3-bolt clamp, loop of guy grip or bail of strandvise will be in the position shown in Fig. 1. When 3-bolt clamps are used on double eye guy rods, place clamp on top guy with nuts on top and clamp on bottom guy with nuts on bottom.

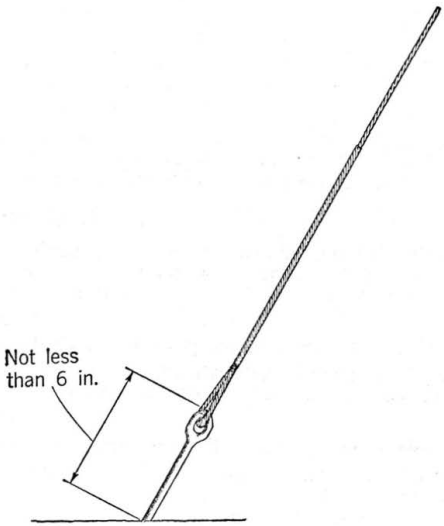

Fig. 1