

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

**SECTION G51.105.3**  
**Issue 1, July, 1955**  
**AT&T Co Standard**

**SUSPENSION STRAND**  
**ATTACHMENTS—CABLE EXTENSION ARMS**

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**1. GENERAL**

1.01 This section covers the field of use and the method of installing steel and wooden cable extension arms.

1.02 Cable extension arms are used where it is necessary to clear obstructions in the span or to improve cable alignment.

1.03 The types of cable extension arms are:

(a) B Cable Extension Arm—a steel fixture for use where offsets of about 28 to 44 inches are required.

(b) C Cable Extension Arm—a steel fixture for use where offsets of about 18 to 24 inches are required.

(c) Wooden Extension Arms—single or double guard arm fixtures for use where offsets up to 38 inches are required.

1.04 Steel or wooden cable extension arms may be used interchangeably except that where proper separations cannot be obtained from supply vertical runs, wooden arms shall be used.

## 2. USE

2.01 Cable extension arms may be used when the average of the adjacent spans does not exceed the values given in the following tables. These values apply regardless of sheath or conductor material.

(a) Where a single cable is to be supported.

### Maximum Average of Adjacent Spans— Single Cable

(Feet)

#### Type of Cable Extension Arm

Cable Weight (Lbs./Ft.)	Type of Cable Extension Arm			
	B	C	Wooden	Double Wooden
.5	300	300	300	300
1.0	300	300	300	300
1.5	300	300	300	300
2.0	275	300	275	300
2.5	250	300	250	300
3.0	230	300	230	300
3.5	215	300	215	300
4.0	200	295	200	300
4.5	185	275	185	300
5.0	175	260	175	300
5.5	165	245	165	300
6.0	155	235	155	300
6.5	150	220	150	300
7.0	145	210	145	290
7.5	135	205	135	270
8.0	130	195	130	260
8.5	125	185	125	250

(b) Where two or more cables are to be supported.

**Maximum Average of Adjacent Spans—  
Two or More Cables**

(Feet)

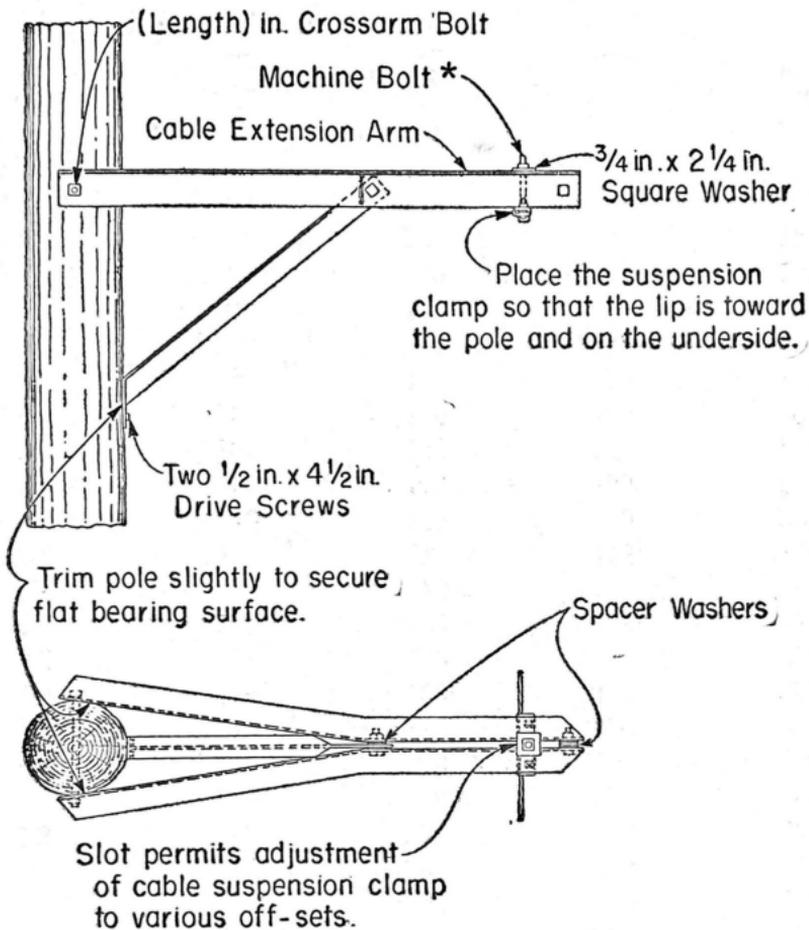
**Type of Cable Extension Arm**

<u>Combined Cable Weight (Lbs./Ft.)</u>	<u>Type of Cable Extension Arm</u>			
	<u>B</u>	<u>C</u>	<u>Wooden</u>	<u>Double Wooden</u>
.5	300	300	300	300
1.0	250	300	250	300
1.5	210	300	210	300
2.0	185	275	185	300
2.5	170	250	170	300
3.0	160	230	160	300
3.5	150	215	150	295
4.0	140	200	140	275
4.5	130	190	130	260
5.0	125	180	125	250
5.5	120	175	120	240
6.0	115	170	115	230
6.5	110	165	110	225
7.0	105	160	105	220
7.5	105	155	105	210
8.0	100	150	100	200
8.5	95	145	95	195
9.0	—	140	—	190
9.5	—	135	—	185
10.0	—	130	—	180
11.0	—	120	—	170
12.0	—	115	—	160
13.0	—	110	—	150
14.0	—	105	—	145
15.0	—	100	—	140
16.0	—	95	—	135

**3. INSTALLATION**

3.01 Install the B and C cable extension arms as shown in the following figure.

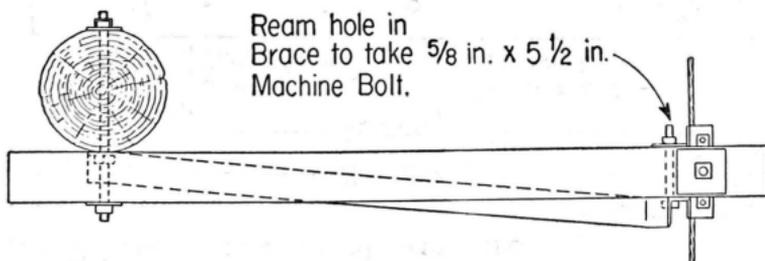
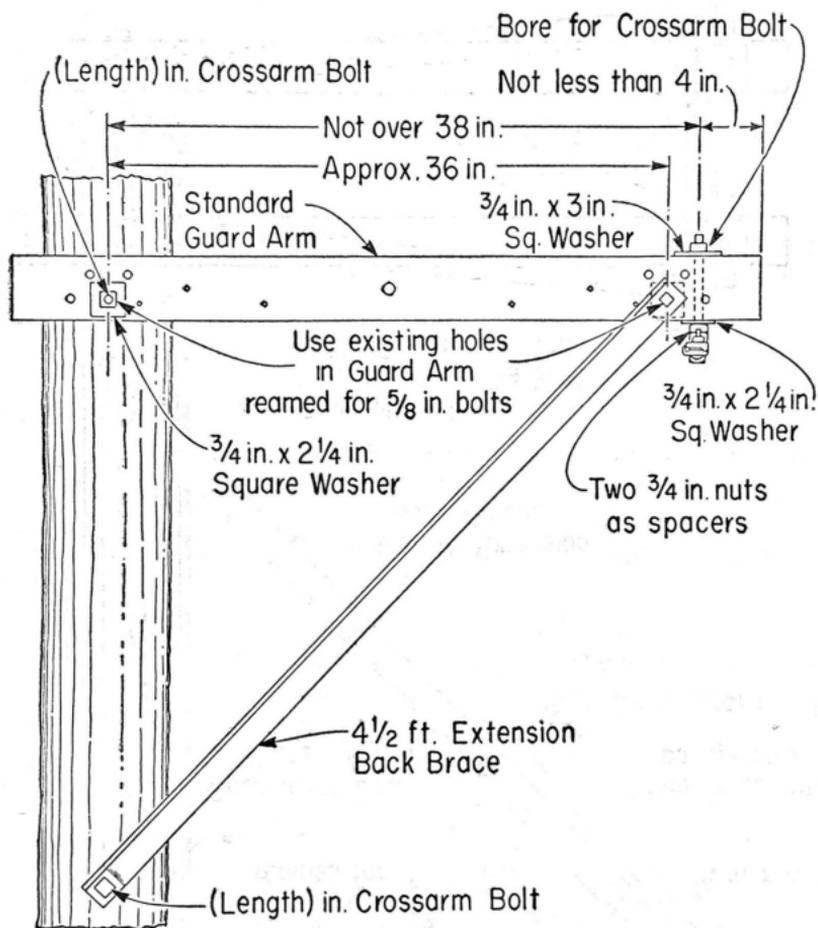
\*Use  $\frac{5}{8}$  in. x 6 in. Machine Bolt with Type B Cable Extension Arm and  $\frac{5}{8}$  in. x  $5\frac{1}{2}$  in. Machine Bolt with Type C Cable Extension Arm.



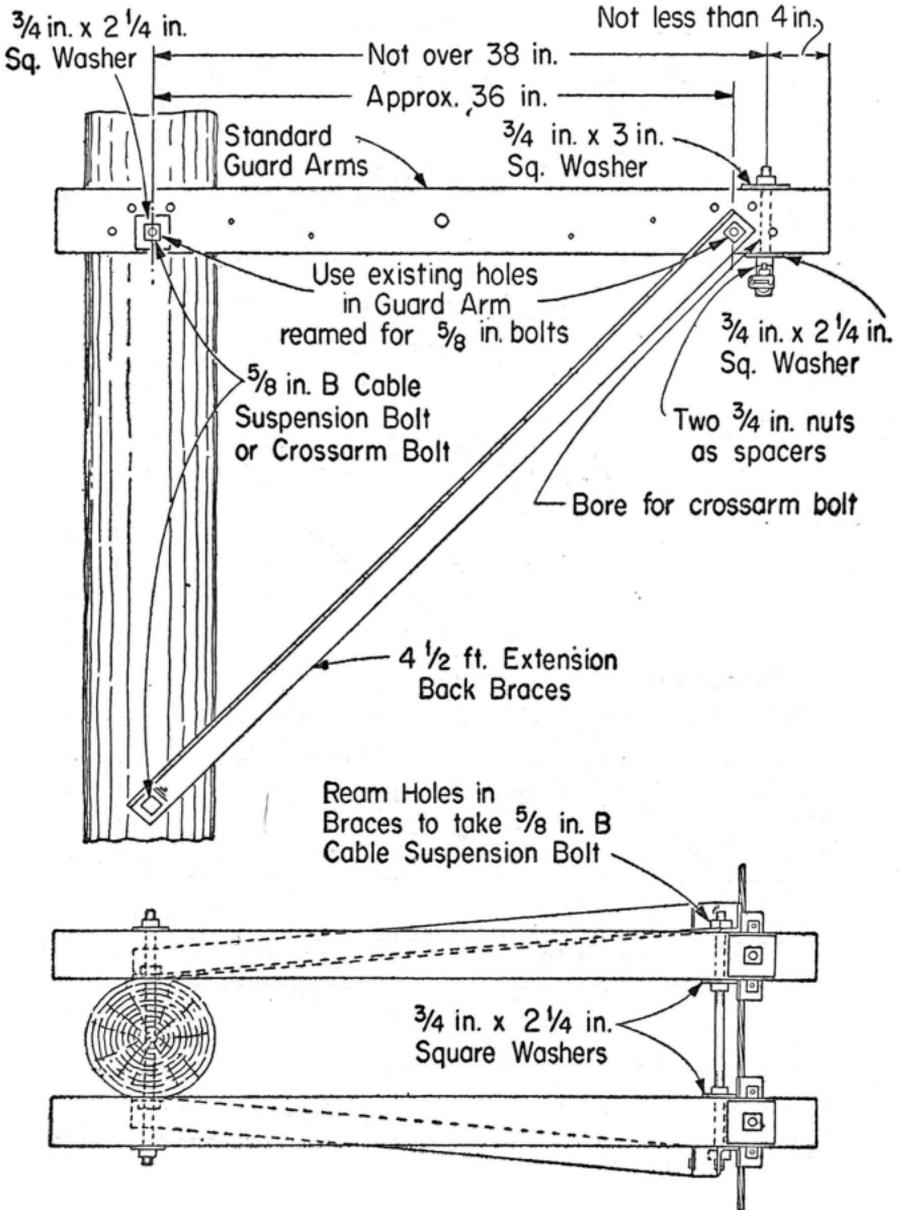
3.02 The spread of the two horizontal arms of the B and C arms may be varied to fit poles ranging in diameter from 6 to 9 inches by placing various combinations of spacing washers on the two assembly bolts between the two angle arms. The minimum spread is obtained with two washers on the center bolt and eight on the end bolt; the maximum spread is obtained with six washers on the center bolt and four on the end bolt. Where the pole diameter at the point of attachment exceeds 9 inches, slight gaining of the pole may be necessary to obtain the desired fit.

3.03 Install a wooden extension arm as shown in the following figures. Use new guard arms or pieces of new 3-1/4-inch by 4-1/4-inch crossarms.

(a) Where a single guard arm is used.



(b) Where double guard arms are used.



**Note:** If less offset is required, the cable suspension bolts which support the cable clamps may be placed closer to the pole, leaving the braces in the same position as shown in the illustrations.