

## DROP AND BLOCK WIRING

### B DROP WIRE RULE

#### 1. GENERAL

1.01 This section covers the use of the B drop wire rule.

1.02 This section is reissued to include reference to F drop wire which replaces C drop wire rated Manufacture Discontinued.

1.03 The B drop wire rule permits a workman to determine before stringing drop wire if required ground clearance at any point under a span may be obtained with attachments at fixed heights on the pole and house. Conversely for a given ground clearance at any point in the span

the rule will indicate the necessary heights of attachment at pole and house.

1.04 The design of the B drop wire rule is based upon the minimum stringing sags for F and C drop wire as covered in Section 462-400-200. *This rule is usable only when drop wire is strung to these minimum sags.*

1.04 The size of the rule permits it to be carried in the binder containing these sections.

#### 2. DESCRIPTION OF B DROP WIRE RULE

2.01 The rule (Fig. 1) consists of a grid card, a slide, and a curve section of clear plastic.

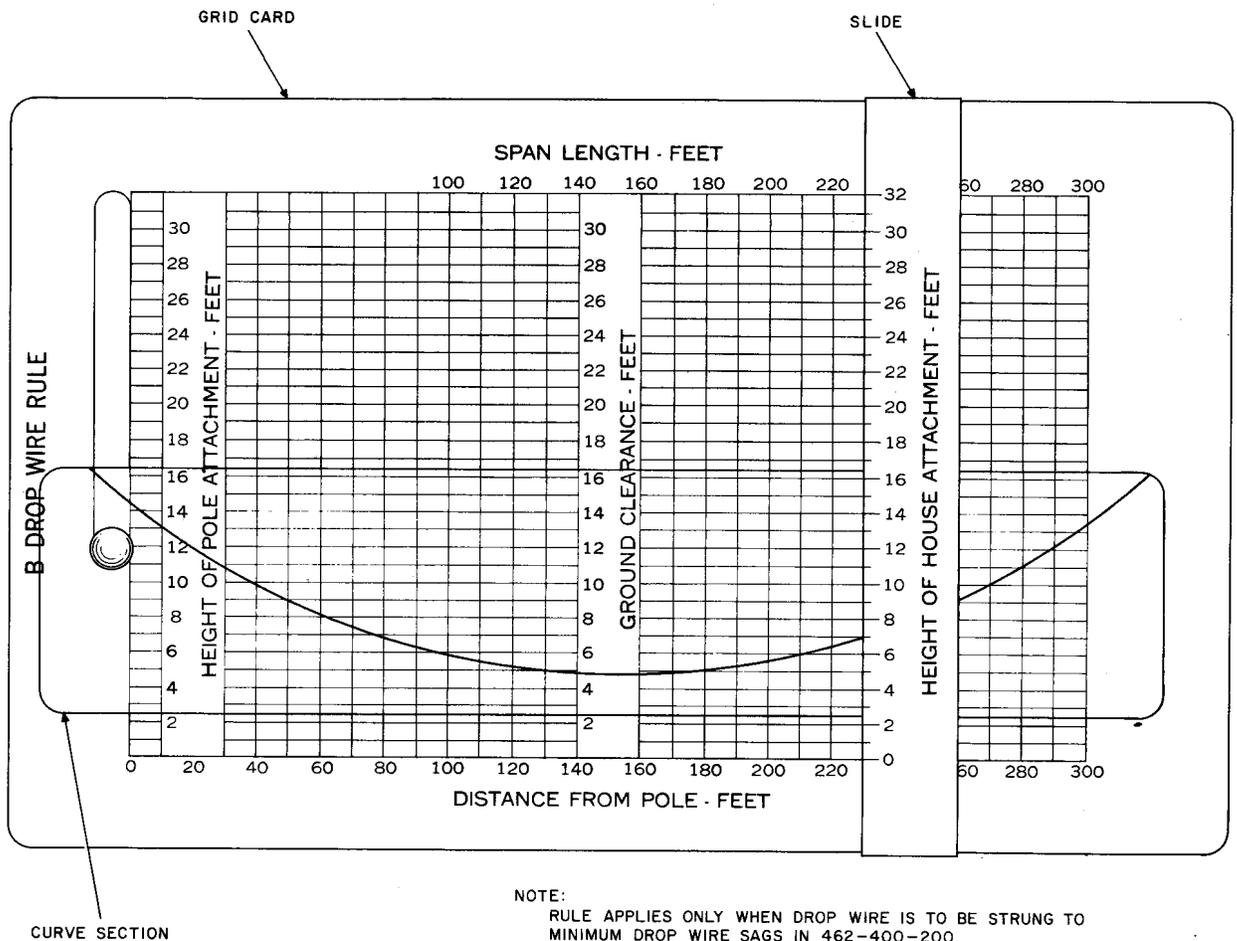


Fig. 1—B Drop Wire Rule

The grid card has two vertical scales covering Height of Pole Attachment and Ground Clearance and two horizontal scales covering Span Length and Distance from Pole.

**2.02** The slide is made to slip over the card so the rule can be set to the span length in which the drop wire is to be strung.

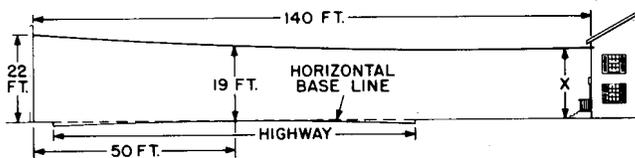
**2.03** The grid card is provided with a vertical slot in which the curved section may pivot or slide to obtain the desired setting for height of pole attachment.

### 3. USE OF B DROP WIRE RULE

**3.01** The use of the B drop wire rule is best explained through solutions of specific examples of drop wire installation.

#### Pole-to-House Spans over Highways

**3.02** In a typical pole-to-house drop wire span shown in Fig. 2, it is assumed that the drive hook on the pole is located 22 feet above ground, the distance from pole to house is 140 feet and it is desired to obtain a ground clearance of 19 feet over the middle of the highway 50 feet from the pole. The problem is to predetermine the height of house attachment (shown at X) required to obtain the necessary ground clearance of 19 feet. In this case, the ground at the pole, middle of the highway, and house are at the same level.



**Fig. 2—Typical Pole To House Drop Wire Span**

**3.03** Set the known heights and distances in the foregoing problem on the drop wire rule and read the required height (X) of the first attachment on the building as follows: (The following examples and Fig. 3 will help to illustrate these instructions.)

- (1) Set the slide of the B drop wire rule so its left edge coincides with the 140-foot vertical

line on the grid card. This represents the given distance from pole to house.

- (2) At the extreme left of the grid card, spot 22 feet as the Height of Pole Attachment.

- (3) On the grid card, spot a second point at the intersection of the 19-foot horizontal Ground Clearance line with the 50-foot vertical line representing Distance from Pole.

- (4) Position curve section of rule so that curve line passes through the two points spotted on the grid card in accordance with (2) and (3). Where the curve line crosses the left edge of the slide, read the Height of House Attachment. The reading is 18-1/2 feet.

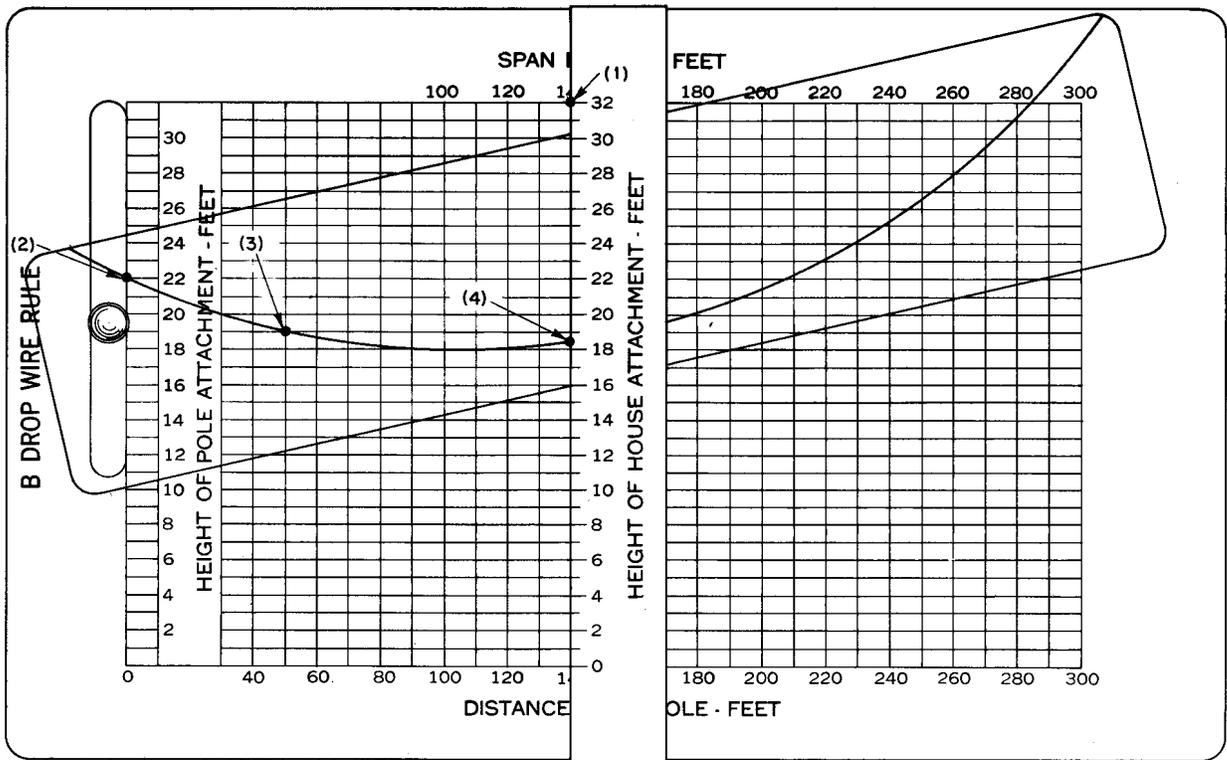
**3.04** Where the house is situated above a horizontal base line drawn through the pole at the ground line, the amount of rise would be subtracted from the reading for height of house attachment obtained as in 3.03. For the condition shown in Fig. 4, the height of house attachment would be 18-1/2 feet minus 4 feet (height of the terrace) or 14-1/2 feet.

**3.05** Where the house is situated below a horizontal base line drawn through the pole at the ground line, the amount of the drop would be added to the reading of the rule obtained as in 3.03 for the level ground condition. The height of house attachment for this condition shown in Fig. 5 would be 18-1/2 feet plus 3 feet (depth of the depression) or 21-1/2 feet.

**3.06** Where the heights of pole and house attachments are established as shown in Fig. 6 and it is desired to determine ground clearance under the drop wire at a point 50 feet from the pole, set the curve section of the rule with the curve line passing through the known pole and house attachment heights. Correct the ground clearance reading on the rule (15-1/2 feet) by the amount of rise or drop of the ground in the span with respect to the horizontal base line drawn through the pole at the ground line.

#### Pole-to-Pole Spans

**3.07** Drop wire ground clearances in pole-to-pole spans are determined in the same manner as in pole-to-house spans by considering the scale on the slide as applying to the second pole instead of the house.



NOTE:  
 RULE APPLIES ONLY WHEN DROP WIRE IS TO BE STRUNG TO  
 MINIMUM DROP WIRE SAGS IN 462-400-200.

Fig. 3—Use of B Drop Wire Rule

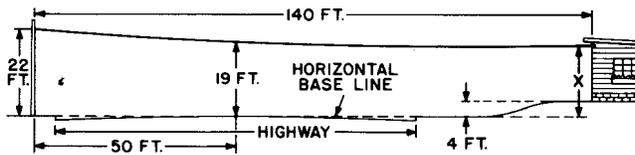


Fig. 4—House Located Above Base Line

3.08 Ground clearances under the drop wire in pole-to-house and pole-to-pole spans may be checked by means of the clearance measuring line, the B clearance rule, or equivalent following the placing of the drop wire. (See 081-220-104.) Checking results, particularly in the early stages of its use, should enable workmen to become more skillful in the use of the B drop wire rule.

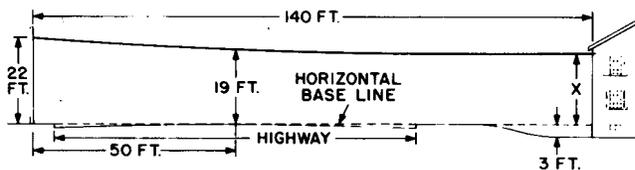


Fig. 5—House Located Below Base Line

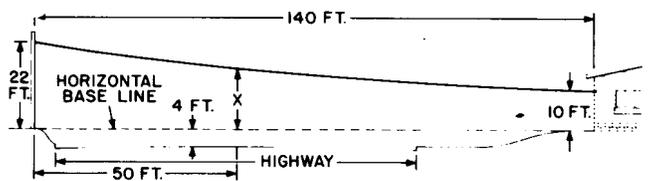


Fig. 6—Height of Pole and House Attachments Are Known