

then

$$T_b = \frac{T_a}{5} \left( 1 + \frac{4(P_a + P_b + W_b)}{P_a + W_a} \right),$$

and the increment will be  $T_b - T_a$ .

Next add  $W_a$ , the three increments found, and the weight per lineal foot of the iron hand rails: the sum will be the dead load required. If it agrees with the assumed load  $W_b$ , all right; if not, another trial for the new truss weight is to be made.

There is one case in which this method would give too great a result: it is that of a pony truss with side braces, of which the only representative in the tables is the sixty-foot span. To apply the method to this case, it will be sufficiently exact to use the weight of floor system of the fifty-foot span, because the floor beams of the sixty-foot span project beyond the trusses. This change being made, the method can be otherwise followed exactly.

The full double horizontal lines in Tables I., II., and III., divide the single from the double intersection trusses.

All the bridges in Table III. lying to the left of the double vertical line which separates the twenty-two-foot and twenty-four-foot roadways, have stiffened end panels. The corresponding lines of division in Tables I. and II. separate the twenty-foot and twenty-two-foot roadways.

The weights of iron in Tables I., II., and III., *do not include the weight of the spikes.*

It is seldom necessary to make an allowance for snow load in bridges of Class C, but it may be advisable to do so in bridges of Classes A and B; for, after a heavy snow-storm, the travel on country roads would be light, which would not necessarily be the case in a city or its suburbs. The proper allowance for snow load should be from ten (10) to thirty (30) pounds per square foot of floor; according to climate, locality, probability of greatest live load occurring simultaneously with the snow load, etc.

As stated in Chapter II., the wind pressure assumed is forty (40) pounds per square foot for spans of one hundred (100) feet and under, thirty-five (35) pounds for spans between one hundred (100) and one hundred and fifty (150) feet, including the