should be obvious that certain precautions should be taken in its application. For example, the statement that the minimum-cost point occurs when the directly varying costs equal the inversely varying costs is not correct unless the line representing the directly varying costs goes through the origin. Also, the cost represented by ax must actually vary directly with x and the cost represented by $\frac{b}{x}$ must actually vary inversely. In the following example the cost per pound of wire must be the same for all different sizes of wire (which usually is not true), and the costs of energy losses must vary inversely with the wire size. A variable rate for electric energy or the existence of leakage loss and corona loss (such as occur in high-voltage transmission lines) interferes with the second assumption. Moreover, the analysis disregards any possible adverse consequences of voltage drop on the operation of electrical equipment. A lower limit on wire size may exist because of electrical code requirements.