der considerable tension to the guide sheave or winding drum, and in locating the drum at such a distance as to permit the wire to be cooled and set before it is coiled thereon.

"There will be two kinds of tests:

"First. A piece 60 feet long, from every fortieth ring, is placed in a vertical testing machine which has a vernier guage, capable of being read to \( \frac{1}{10000} \) of one foot, so attached as to indicate the stretch of 50 feet of the wire. An initial strain of 400 pounds is now applied, which by successive increments of 400 pounds is increased to 1600 pounds. The amount of stretch for each of these increments shall be the same, and the total stretch between the initial and terminal strain shall not be less than \( \frac{97}{1000} \) of one foot equal to \( \frac{194}{10000} \) of the 50 feet. And furthermore, on reducing the strain to 1200 pounds, there shall be a permanent elongation not exceeding \( \frac{1}{10000} \) of its length.