

Ye Olde Providence Measure

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The City of Providence, R.I. The Standard of Measurement.

There has never been any natural measure declared the standard of length for the United States by the general government. It is considered that the standard of Great Britain, which was in force in the colonies before 1776, has always been the legal standard of the United States, and all the different values that have been assumed for the foot in the vicinity of Providence have grown out of the errors in copying the British measure.

The Imperial Yard of Mr. Bird, constructed in 1760, under the direction of a committee of the House of Commons, was adopted by Parliament as the foundation of all measures of length. The yard of Bird was made, as far as possible, conformable to the best measures of length which had been in use in Great Britain from the time of Henry the Eighth. The Imperial Yard was destroyed by the burning of the House of Parliament in 1834. Two years before this time, the Royal Astronomical Society constructed a brass yard, and subjected it to the most careful comparison with the Imperial Yard, and this yard of the Astronomical Society is now regarded as the standard of Great Britain.

The celebrated Troughton, of London, furnished the United States government with a brass scale 82 inches long, taken from the Imperial Yard, and from this scale standards were furnished by the government to the several States. It has since been found, however, that the Troughton scale did not possess the accuracy ascribed to it, and the standards that are now supplied by the government vary somewhat from those first sent out.

About the year 1848, the general government furnished Rhode Island with a partial set of weights and measures, and the brass yard included in this set is the present legal standard for the State. The Revised Statutes declare that "The weights, measures, and balances received from the United States, and now in custody of the State Sealer, and such new weights, measures, and balances as shall be received from the United States as standard weights, measures, and balances in addition to or in renewal thereof, shall be the authorized standards by which all town standards of weights and measures shall be tried, proved and sealed." This statute provides that whenever the United States alters or corrects the weights, measures, or balances, the new weights, measures or balances become the legal standard, provided they are supplied to the State Sealer by the general government.

The oldest Providence standard referred to on the records was a certain "eighteen-foot pole." All surveys seem to have been based upon this pole, and grants were expressly made in accordance therewith. It is not known whether this pole now exists, and its comparison with the present standard cannot be ascertained. The date when it ceased to be used is also unknown.

What has since been referred to as "Old Providence Measure" was used previous to the reception of the government standard in 1848. This standard consisted of two wooden poles, each assumed to be 10 feet long. The better of these two poles was shorter than the other by $1\frac{1}{4}$ inches on 100 feet, and the mean between the poles is what is now meant by the term "Old Providence Measure." This measure is estimated to be 0.30 foot on 100 feet longer than the present State standard, and this surplus is now allowed on all distances that were measured previous to 1848.

The unavoidable error growing out of repetitions of the brass yard has heretofore prevented the adoption of a satisfactory standard of a suitable length for testing engineers' tapes. With a view to overcome this deficiency, the City Engineer has procured from Washington two steel bars, 10 feet long, and the State Sealer has personally compared these bars with the brass yard, finding them as nearly identical as the appliances provided could be detected.

The Tapes used by Providence engineers are usually of steel, 100 feet long, $\frac{1}{4}$ inch wide, and weigh about $1\frac{1}{2}$ pounds. They are frequently compared with the standard to test their accuracy. Chains have been out of use for twenty years.