full Birmingham gauge. A length of 14 feet must weigh exactly one pound before it is galvanized.

"Each must have a breaking strength of no less than 3400 lbs. This corresponds in wire weighing 14 feet to the pound, to a rate of 160000 pounds per square inch of solid section. The elastic limit must be no less than \( \frac{47}{100} \) of the breaking strength, or 1600 pounds. Within this limit of elasticity it must stretch at a uniform rate, corresponding to a modulus of elasticity of not less than 27,000,000, nor exceeding 29,000,000 pounds.

"All wire must be 'straight' wire; that is to say, when a ring is unrolled upon the floor, the wire must lie perfectly straight and neutral, without tendency to spring back in the coiled form, as is usually the case. This straight condition must not be produced by the use of straightening machines, but by a patented process, which consists in leading the wire, from a point within the galvanizing trough, in a straight line un-