ability that the safety catches of the patent would be installed at Buffalo. The brief proceeds: "If the defendant did not actually install such apparatus as is described and illustrated in the patent in suit, the burden was upon it to have proved it." There can be no pretense upon this proof that the burden was upon Kaelber to prove this for the reason that the hypothesis upon which the proposition is founded fails wholly as to him. The Western Electric Company is not a party. It evidently declined the invitation of the bill to "submit itself to come within the jurisdiction of this court." As to the only defendant who is before the court the complainant's difficulty is not with the law, but with the facts. The rule of law is plain and simple, but the proof does not bring the defendant within the rule. Too much is left to uncertainty and speculation. Should the court decree for the complainant it could never rid itself of the painful doubt that it may have done an injustice to an absolutely blameless man. The bill is dismissed.

## DODGE et al. v. POST et al.

(Circuit Court, S. D. Ohio, W. D. October 23, 1896.)

No. 4,251.

1. PATENTS-PRIOR USE-EVIDENCE.

The defense of prior use must be established beyond a reasonable doubt. The proof must be as explicit and convincing as that required to convict a person of crime; and a fair doubt of the reliability of the testimony, or an inherent improbability in the story told, is sufficient to dispose of the defense.

2. SAME—SEPARABLE PULLEYS.

The Dodge & Phillion patent, No. 260,462, for a separable pulley, in which, when the meeting ends of the rim are in contact, the meeting faces of the spoke bar and hub are slightly separated, so that they may be compressed by clamp bolts upon the shaft, held not anticipated, valid, and infringed.

This was a suit in equity by William Dodge and others against Post & Co. and others for infringement of a patent for a separable pulley. Final hearing on the merits.

L. Hill, for complainants.

Chas. M. Peck and Geo. B. Parkinson, for respondents.

SAGE, District Judge. Patent No. 260,462, for separable pulley, on which this suit is based, was granted July 4, 1882, to Dodge & Phillion. Only the first and third claims are alleged to be infringed. They are as follows:

"(1) A separable pulley, whereof, when the meeting ends of the rim are in contact, the meeting faces of the spoke bar and hub are slightly separated, as described, combined with clamp bolts, G, whereby said hub is clamped upon the shaft in the manner set forth."

"(3) A separable pulley, whereof, when the meeting ends of the rim are in contact, the meeting faces of the spoke bar are slightly separated, and clamp bolts, G, combined with a separate split thimble interposed between said shaft and pulley, substantially as set forth."

When the parts of the pulley are united, the rim segments are in contact at their meeting ends, while the two sections of the divided spoke bars are united at their ends, but separated between the rims by an open space, extending from rim to rim. A shaft hole is provided in the spoke bars at the center of the pulley, onehalf in each section; and, when the two parts are placed upon the shaft, the clamp bolts (which are near the hub, and on each side thereof) are tightened to bind the hub to the shaft. The open space between the parts of the spoke prevents any interference with the tightening of the clamp bolts, or the binding effect of the entire inner surface of the thimble or bushing of the hub upon the shaft. The specification states (preliminary to the descriptive part thereof) that the pulleys are to be made of wood. This statement must be considered as running through the entire specification and claims, saving two stated exceptions: (1) That the construction referred to in the first claim is equally applicable to wooden and metallic pulleys; and (2) that the wood thimbles referred to in the third claim are equally applicable to metallic or wooden separable pulleys. There is no statement anywhere that the thimbles or bushings may be made of any substance other than wood; and hence the broad statement first above referred to applies to them without qualification. For the purpose for which thimbles or bushings are employed, metal is not the mechanical equivalent of wood, because—First, being a yielding material, wood adapts itself to the irregular surface of the shaft, while metal does not; second, its adhesive or tractional power, as compared with metal, is as from 90 to 100 to 41, according to the kind of wood used, hard maple being the best; and, third, it is lighter, cheaper, and more convenient to manufacture and handle. It appears from the evidence that metal shafting is quite irregular in its contour, and the thimble, to make it fit, must be made of compressible material. Complainants have never used any material for the thimbles except wood, and the invention of their patent relates to wooden thimbles. Bushings of paper, leather, or cloth, wound round the shaft, are not the equivalents of the complainants' wooden bushings, nor are bushings of metal, unless the surface of the metal be so serrated or roughened as to yield and adjust itself to the irregularities of the shaft when under compression. Hence, in order to anticipate the third claim, there must be shown an anticipating device having its rim segments in contact, a divided spoke united at the ends, but separated between the rims of the pulley by an open space, and a hub provided with a split bushing of wood or its equivalent, and adapted to be clamped to its shaft by compression.

The defendants set up and have introduced evidence tending to prove 29 instances of prior use. The complainants' testimony and exhibits in chief cover 64 printed pages, the defendants' 1350 pages, and the complainants' in rebuttal 1979 pages; being in all 3393 pages, not including patents and illustrations, covering 400 or 500 pages in addition. This testimony is, in the main, pertinent