

that event your verdict should be for the plaintiff, if you further find there has been an infringement of it by the defendants."

From what has been said it is plain that the verdict and judgment in the case of Wilgus against Germain and others were based, and could only have been based, upon the ground that the Wilgus patent was a mere adaptation of the device covered by the prior patent issued to Gauthier, and shown by the various forms of machines introduced in evidence as exhibits in the case, and was for that reason invalid. That the judgment thus given—the court having jurisdiction of the subject-matter and of the parties—is good as a plea in bar, and conclusive when given in evidence in a subsequent suit between the same parties or their privies, upon the same point, is well settled. *Hopkins v. Lee*, 6 Wheat. 109; *Bank v. Beverly*, 1 How. 134; *Thompson v. Roberts*, 24 How. 233; *Cromwell v. Sac Co.*, 94 U. S. 351; *Lumber Co. v. Buchtel*, 101 U. S. 638; *Russel v. Place*, 94 U. S. 606. It results that that judgment is a conclusive determination, as between the present parties, not only of the invalidity of the Wilgus patent, but that sprinklers made in conformity with that patent are substantially copies of the device patented to Gauthier. The record in the former case clearly shows that that precise question was raised and determined by the verdict and judgment in that action. Even if it be conceded that this would not appear from the general verdict and judgment, considered by themselves, yet the law is that, to apply the judgment and to give effect to the adjudication actually made, resort may be had to extrinsic evidence. *Russel v. Place*, 94 U. S. 608. In the present instance, the special verdict of the jury, as well as the evidence in the action of Wilgus against Germain and others, embodied in the transcript introduced in evidence here, abundantly shows that the question whether sprinklers made in conformity with the Wilgus patent are substantially copies of the device patented to Gauthier was distinctly raised in that action, and determined against the plaintiff there, defendant here. In the present suit it is not denied, but affirmatively shown, that the sprinklers made, used, and sold by the defendant also conformed to the patent issued to him, and are therefore similar.

There must be an interlocutory decree for the complainant, and a reference to a master to take the accounting prayed for.

---

INDIANA NOVELTY MFG. CO. v. CROCKER CHAIR CO.

SAME v. SMITH MFG. CO.

(Circuit Court, E. D. Wisconsin. November 7, 1898.)

1. PATENTS—ANTICIPATION—PUBLIC USE.

The use of a wooden rim for bicycle wheels, during six years or more, on bicycles made and sold to the public for actual use, not only by the inventor, but by other manufacturers who copied from him, was a public use, which renders invalid a subsequent patent to another for a similar rim, of which the former was clearly an anticipation; and it cannot be considered an abandoned experiment, and without effect as an anticipation, because it did not during such time come into such general use as it did after the patent was granted, and after the use of the

bicycle itself had enormously increased, nor because the inventor had in the meantime acquiesced in the rejection of his application for a patent therefor.

2. SAME—WOODEN RIMS FOR BICYCLE WHEELS.

The McKee & Harrington patent, No. 506,430, for a bent wooden rim for rubber-tired bicycle wheels, is void for anticipation by a rim similar in all respects to that described, which was made and used by John C. Garrod between 1885 and 1887.

3. SAME—TONGUED AND GROOVED JOINT FOR BICYCLE RIMS.

The Marble patent, No. 547,732, for a wooden rim for bicycle wheels, the only novel feature claimed being a series of tongues and grooves glued together and extending longitudinally in the plane of the wheel to unite the two ends of the rim, is void for want of patentable novelty.

Two separate actions are brought for infringement of the same patents, both submitted by stipulation upon the same testimony. The complainant is the owner of the following letters patent: No. 506,430, granted McKee & Harrington, October 10, 1893, and designated throughout the record as the "Harrington patent"; and patent No. 547,732, granted to the complainant, as assignee of George W. Marble, October 8, 1895, and referred to as the "Marble patent." The claims in the patents, respectively, so far as involved in these suits, are as follows:

Under the Harrington patent, claims 1 and 4, which read as follows:

"(1) The herein-described method of making a rim for rubber-tired bicycle wheels; that is to say, by bending a single flat piece of wood in a circle, splicing the meeting ends, and then turning the rim to the requisite shape, substantially as set forth and described."

"(4) A wood wheel rim adapted and arranged to receive a rubber tire, said rim being bent from a single piece of wood, and provided with holes to receive the spokes, metallic washers being seated in the wood surrounding the spoke holes, protecting the wood, and preventing the drawing of the spokes therefrom, substantially as shown and described."

Under the Marble patent, the following claims:

"(1) In a bicycle wheel, the combination with a pneumatic or elastic tire and suspension spokes, of a wood rim consisting of a solid strip of wood bent in circular form, channeled on its outer periphery to receive said tire, and having its meeting ends each provided with a series or multiplicity of long, narrow, interfitting tongues and grooves, glued together, extending longitudinally of the rim and in the place of the wheel, the ends of the tongues on one end of the rim strip fitting or abutting against the end or bottom of the corresponding grooves on the other end of the rim strip, whereby said rim is furnished with means for performing the triple functions of resisting collapse or compression due to the tension of said suspension spokes, of acting tensilely to bind or hold the parts of the wheel together, and of resisting breakage, flexure, or displacement, as required in its combination with said pneumatic tire and suspension spokes, substantially as specified.

"(2) In a bicycle wheel, the combination with an elastic tire and suspension spokes of a wood rim serving to resist collapse or compression, tensile strains, and also breaking or flexure strains, and consisting of a solid strip of wood, channeled on its outer periphery to receive said tire, and having its meeting ends furnished with a series or multiplicity of interfitting tongues glued together, the glued side surfaces of said interfitting tongues affording an extended glue surface, lying substantially in the plane of the wheel, and longitudinally of the rim, so as to resist tensile and breakage or flexure strains, substantially as specified."

The question of the validity of these patents was raised by demurrer to the bill, assigning as the ground that it appeared upon the

face of the letters patent that the claims were for nonpatentable subject-matter; but the demurrers were overruled, in the view that an inquiry was involved as to the state of the art which could be determined only upon proofs at final hearing.

Munday, Evarts & Adcock, for complainants.

H. G. Underwood and Winkler, Flanders, Smith, Bottum & Vilas, for defendants.

SEAMAN, District Judge (after stating the facts as above). The controversy in these cases relates wholly to the patentable novelty of the claims in question under each of the letters patent. The utility of the devices, especially as they are embodied in patent No. 547,732, is unquestioned, and infringement is contested by objections only to the sufficiency of the proofs. The issue involved of anticipation in the prior art, which is frequently one of complexity and nice distinctions, is here simplified by the nature of the testimony, the undoubted authenticity of the exhibits, and the clear presentation in connection with the state of the art.

1. The Harrington patent, No. 506,430, rests solely upon the date of filing the application for the presumptive date of discovery, namely, March 6, 1893. Laying aside the several prior patents which were introduced as disclosing the use of wood rims for bicycle wheels, and numerous others of which it is claimed that they show analogous prior use, it is sufficient and controlling for the purposes of this inquiry that the device made by the witness John C. Garrood between the years 1885 and 1887, which entered into public use during several years thereafter, perfectly anticipates the Harrington device. This Garrood production is established beyond doubt by concurring witnesses, by an exhibit original wheel, exhibit original rims, old photographs, and confirmed by Garrood's application filed in the patent office January 10, 1887, to procure letters patent on this device,—as an "improvement in vehicle tensional wheels, in which an endless rubber tire is secured into a wood felloe, made in one piece, and turned up all over it, steel wire spokes, and a steel or other suitable metal hub,"—which application was rejected in that office, and there left, without further prosecution. Garrood's device was also employed by the witness Turner, and by one Anderson, a manufacturer of bicycles, each of whom made these rims with some attempted improvements, which entered into use in bicycles to some extent, all prior to the Harrington application. Indeed, the evidence of the Garrood rim is so satisfactory as to time, design, and publicity that counsel for complainant conceded, in the course of his argument, that it was clearly an anticipation of the discovery claimed by Harrington, but for failure to carry it into general use in the manufacture of bicycles, which is asserted to create an exception from the general rule, and place this rim, and those of Turner and Anderson as well, in the category of abandoned experiments.

With this frank admission of strength in the interesting showing of fact, no review is called for beyond the testimony relating to the character and extent to which these wood rims entered into use.

Garrood was engaged with his father in the manufacture of bicycles in England prior to 1881, when he came to America, and entered upon the same line of work, first in Boston, and later at Lynn, Mass. Having devised the wood rim for bicycles, he constructed the high-wheel exhibit between 1885 and 1887, in Lynn, where he had it in constant use for seven years, attracting the notice of wheelmen there and in Boston as well. He made similar wheels from time to time, which were furnished to manufacturers and individuals, and entered into bicycles, of which he names several instances, and states that at least 25 rims were so made by him and used; that some so made were sold by him over the counter. In 1888, or earlier, he made, for separate purchasers, who are named, two tricycles, with similar rims, which were for years in successful use, became well known, and are clearly identified by original photographs taken in 1888. Garrood's operations were in Lynn, and extended to the close of 1890, but were not carried on in wood rims after that year, except in two later instances mentioned, which are apparently sporadic. The witness Turner, a woodworker, having his shop in Boston, there manufactured wood rims for bicycles of this pattern for a period of about six months in 1891, supplying manufacturers, of whom he names the Novelty Woodwork Company, Peter Berlo, and a few made for Mr. Garrood. Mr. Turner also testifies to similar construction of wheels by one Anderson, a manufacturer of bicycles in Boston (who made an improvement in the splice, which will be referred to under the Marble patent); but the extent or duration of the Anderson use is not clearly shown, although rims are produced and identified as made by him, and one made by Turner as well.

The use thus disclosed was manifestly a "public use," within the meaning of the term as employed in the patent law, to render a later production of identical means nonpatentable, without regard to actual knowledge of such prior discovery and use. It is the fact of use given to and received by the community at large, in contradistinction to shop experiments, or mere occasional exhibitions, or use by the inventor alone, which must control; and it is not to be measured by degrees or territorial extent, nor made dependent upon any probability of fact that knowledge of such use should have reached the later claimant. Therefore I can find no tenable ground for excepting the use here shown from the general rule. It was fairly constant for a period of at least four or five years, when the demand for bicycles, and the bicycle art as well, were in the formative stage,—an infancy of surprising length, when viewed in the light of their growth within the past few years. If the use be regarded as local in Boston and Lynn, it was made public in a locality which was probably the most important manufacturing center for bicycles at that stage of the art; and the wood rim introduced by Garrood was not only utilized there in a number of practicable wheels, but was placed on the market, taken and used by manufacturers, and presumably the wheels so made were sent out to customers elsewhere. How widely the information was carried that wood rims were practicable cannot, of course, be known, nor is it material in the view indicated. That they

did not then win their way to immediate popularity cannot be charged to defects in the design, as compared with that of Harrington, for there is no substantial difference; but apparently the Garrood rim entered the field too early to find a public which was anxiously seeking wheels of every grade, and educated to appreciate the advantages and capabilities of the bent wood rim. The design was given out to the public, but remained in abeyance, to be called for when the demand for bicycles was more general. The only abandonment, in the sense of patent law, arises out of Garrood's acquiescence in the rejection by the patent office of his application, which affects the right to a monopoly, but has no relation to the active use of the device. I am of opinion that the defense of anticipation is clearly established against the claims referred to in letters patent No. 506,430, and have found it unnecessary to consider the further interesting questions of novelty which were discussed to some extent upon demurrer to the bill.

2. The remaining patent in suit is No. 547,732, for a "wooden-rim bicycle wheel," issued to George W. Marble, assignor, October 8, 1895, on application filed December 22, 1893. This patent embodies the wood rim as described by Harrington, but substitutes for the lap joint of the latter a joint consisting of "a series or multiplicity of tongues and grooves, glued together, extending longitudinally of the rim and in the plane of the wheel." The joint is therefore the sole feature in the combination for which novelty is claimed, and as to that element it is well conceded that the tongue and groove or dovetail, with or without glue, is an old and well-known form of joint in numberless productions of wood. Its use to join the ends of a rim of bent wood to form a pulley is found in letters patent No. 216,095, issued to P. Medart in 1879; but examples are too common to require citations. In the prior bicycle rim of Anderson, produced here, and referred to in considering the Harrington patent, the tongue and groove joint constitute the sole improvement over Garrood. The joint introduced by Marble is, however, claimed to have peculiar form, founded upon his alleged discovery "that a glued joint between two pieces of wood is many times stronger against breaking strains applied in the plane of the joint than it is against breaking strains applied at right angles to the plane of the joint." Accordingly, his tongues and grooves are described in the patent as "extending longitudinally of the rim, and in the plane of wheel," while in the common form they appear to have been placed at right angles to that plane. Whether this change is one "in the form of embodiment, of mere degree or quality of action, without changing the function of any element or adding a new element," and not patentable (*Baldwin v. Kresl*, 46 U. S. App. 511, 526, 22 C. C. A. 593, and 76 Fed. 823); or whether it constitutes a departure so radical in its operation, and so meritorious in results, as to be entitled to the grant on the broad basis of equitable consideration,—are interesting inquiries, which do not require decision in this case, if my conclusion is well founded as to the proof of prior use of this exact form of joint for analogous purposes. In United States letters patent No. 231,002, issued to W. Briggs, August 10, 1880, for a chair-seat rim, the meeting ends of a single strip of bent

wood are united by a dovetail joint made in the same plane; and in United States letters patent No. 238,491, issued to G. E. Davis, March 8, 1881, also for a chair-seat rim, the meeting ends of the strips of wood forming the rim are each united by a tongue and groove in the plane of the rim, and evidently for the same object claimed by Marble. This rim is subjected to strain in the same direction as in a wheel rim, although the degrees of strain are quite different. Other patents which are introduced show joints in the general art of striking similarity. But the archery bow exhibits in evidence, which are well authenticated as long antedating the alleged discovery by Marble, show this exact form of tongue and groove structure where the pieces of wood are united to make the bow. And in a book published in 1878, entitled the "Witchery of Archery," by Thompson, the fact is mentioned that archery bows are commonly made of pieces so united by tongue and groove joint. See page 229. Of these exhibits, Mr. Dayton, the expert on behalf of complainant, says: "The principle of the Marble joint is there, but in an undeveloped, unappropriated, and apparently unrecognized form;" although he further insists that the use is not analogous, and would not suggest that employed by Marble. I am satisfied, however, that this use is not fairly distinguishable, and that it clearly anticipates the joint described in the Marble patent. The advantage in the strength of the joint obtained by placing the glued surfaces in the plane of strain was well exhibited at the hearing by means of a testing machine. The utility of a joint so made, and its superiority for the requirements of the bicycle wheel, are unquestioned. But patentable invention can neither be founded on the value of the device, nor be denied because of its simplicity alone as now viewed. The testimony is convincing that the joint so made by Marble was not an original discovery by him, and I am constrained to the view that there is no patentable novelty in the claims. The bill must be dismissed for want of equity. So ordered.

---

PENNSYLVANIA STEEL CO. et al. v. VERMILYA.

(Circuit Court of Appeals, Third Circuit. November 28, 1898.)

No. 36. September Term.

PATENTS—RAILWAY SWITCHES.

The Brahn patent, No. 248,990, for an improvement in railway switches, relating particularly to the crossbar and lugs which serve to connect the pointed or movable rails of the switch, discloses patentable invention, but, in view of the prior art, must be restricted to the particular devices, substantially as described. The claim is, however, infringed by a device made according to patent No. 308,373, which merely shows a variation in the form of the jaws.

Appeal from the Circuit Court of the United States for the Eastern District of Pennsylvania.

This was a suit in equity by Allen G. N. Vermilya against the Pennsylvania Steel Company and its receivers for infringement of a patent. There was a decree for complainant (87 Fed. 481), from which defendants appeal.