

CONSOLIDATED BRAKE-SHOE Co. *et al.* v. DETROIT STEEL & SPRING Co. *et al.*

(Circuit Court, E. D. Michigan. May 26, 1890.)

1. PATENTS FOR INVENTIONS—INVENTION—ACQUIESCENCE.

Letters patent No. 292,861, issued February 5, 1884, to George B. Ross, for a railway brake-shoe, adapted to get its friction from those parts of the wheel not worn by the rail, and constructed with two grooves, one closely embracing the flange of the wheel, and reaching down on the inner face thereof, in a lug which presses against the tread at the base of the flange, the other being about the width of the tread of the rail, thus relieving this portion of the wheel from wear, possesses patentable invention over the English patent of May 11, 1875, to James Steel, for a shoe possessing substantially the same features, except that the lug of the flange groove came only part way down the flange, and did not bear on the tread at the base thereof, since the Ross patent has been acquiesced in by most of the railroads in this country, and the shoe adopted after attempts by some of them to use the Steel shoe, which was found unsuccessful by reason of wearing a groove in the flange.

2. SAME—INFRINGEMENT—SUFFICIENCY OF BILL.

Where a bill for infringement of a patent alleges that the patentee "became and was, as your orators now believe, the original and first inventor of certain new and useful improvements," and is sworn to by three of complainant's agents, this is a sufficient showing that the patentee was the original inventor to sustain the suit, and no affidavits to that effect are required.

3. SAME—AVERMENTS OF BILL—PRIOR USE AND SALE.

In a bill for infringement of a patent, an averment that the improvement claimed was not in public use or sale in this country, with the patentee's "consent and allowance," more than two years prior to his application, is insufficient to show his right to a patent, under the unqualified requirement of Rev. St. U. S. § 4886.

In Equity. Bill for infringement of patent. On motion for an injunction.

This was a bill in equity to recover damages for the infringement of letters patent No. 292,861, issued February 5, 1884, to George B. Ross for a railway brake-shoe. The object of the invention is stated to be "to avoid the unequal wearing of the wheels by the track, or, more correctly, to cause them to wear more evenly, and thereby avoid the necessity of sending them so often to the shop to be turned up in the lathe." This is accomplished by two grooves, one of which is arranged lengthwise of the shoe, and made to embrace and closely fit the flange of the wheel. The second groove is made about the width of the tread of the rail, and takes off the wear of the brake from that portion of the wheel which is worn by the track. "Between the grooves is a rib which forms a portion of one side of the flange groove, and projects down to reach that portion of the wheel not worn much by the track." The shoe is adapted "to get its friction surface from the portions of the tread of the wheel which are not engaged by or brought in contact with the rail, thereby avoiding the additional wear put upon tires and wheels, as in the ordinary use of the common brake-shoe." The claim is for "a brake-shoe provided with the grooves, *a*¹, *a*², and the wearing projection, *c*, *c*¹, the portion or rib, *C*, projecting down to the wheel, substantially as and for the purposes specified." That the defendant infringes by manufacturing shoes in accordance with complainant's patent for the Chicago, Burlington & Quincy Railroad Company is admitted by the answer.

J. H. Raymond and *Wm. A. Redding*, for complainant.

George Payson, for defendant.

BROWN, J. Our attention is called to two alleged defects in the complainant's bill, which we will dispose of before considering the merits:

1. That it does not appear by the bill or affidavits that the patentee, Ross, believes himself to be the first inventor. Complainant relies, in this connection, upon the case of *Sullivan v. Redfield*, 1 Paine, 445, in which it is intimated that the bill should be accompanied by an affidavit that the complainant believes himself to be the original inventor of what he claims under his patent. In this case the bill, however, did not allege that the complainant was the original inventor; so that, admitting it to have been sworn to, there was no verification under oath that he believed himself to be the original inventor. In the case under consideration, however, there is an allegation in the bill that Ross "became and was, as your orators now believe, the original and first inventor of certain new and useful improvements," etc., and the bill is sworn to by three of complainant's agents. Under the case of *Young v. Lippman*, 9 Blatchf. 277, we think this is sufficient. In that case it was held by Mr. Justice BLATCHFORD that there was no need of an affidavit where the bill itself was sworn to, and averred that the patentees were the original and first inventors of the improvement.

2. That the bill should also aver that the invention was not in public use or on sale for more than two years prior to the application. The averment of the bill is that the improvements were not in public use or on sale in this country, with Ross' consent and allowance, more than two years prior to his application. Under the patent act of 1836, this allegation would have been sufficient; but the law in this particular was changed by the seventh section of the act of 1839, and, as it now stands under Rev. St. U. S. § 4886, it is sufficient to invalidate the patent that the invention has been in public use or on sale for more than two years prior to the application, whether with or without the consent of the inventor. *Andrews v. Hovey*, 123 U. S. 267, 8 Sup. Ct. Rep. 101. The bill will have to be amended in this particular before an injunction can issue or any further action be taken.

The defense is in substance a want of novelty, and, in this connection, defendant relies principally upon an English patent to James Steel, granted May 11, 1875, which describes and exhibits a brake very similar to the Ross shoe, having grooves corresponding to the two grooves of the complainant's patent, and differing from it only in the fact that the inner lug, *c*, of the Ross shoe, projects in the Steel patent only about half-way down the depth of the flange, while in the Ross patent it is shown and described, and distinctly claimed as projecting down the whole depth of the flange to the tread of the wheel. The Steel patent evidently assumes that the wear of the rail will extend up to the flange, and render any projection or lug in the shoe at that point unnecessary; while in the Ross shoe it is assumed that the wear of the rail will be in the center of the tread only, and the shoe is therefore fitted with two lugs, one upon either side of the center of the tread. Were the difference in the two

shoes merely one of degree in the projection of the inner lug of the Ross shoe down a little further than the same projection of the Steel shoe, thus perhaps rendering the shoe somewhat more efficacious, it would clearly not be patentable; but if it were made to appear that the Steel patent was never an operative device, then the man who takes this, and perfects it, and gives it its value, is entitled to his patent. This is complainant's contention, and, in support of it, it has produced a number of affidavits of practical railroad men, who have experimented with brake-shoes made after the Steel pattern, and give it as their opinion that it is wholly impracticable, by reason of its creating grooves or cutting shoulders upon the flange, which are not only detrimental, but disastrous, in the use of the wheel. The affidavit of Ross, the inventor, who was master mechanic of the Buffalo shops of the Erie Railway at Buffalo, and of Wilder, superintendent of motive power of the same road, show that their attention was called to the defects in the old style of brake-shoe, which was flat, and bore simply upon the tread of the wheel, by their experience with a locomotive of the Erie Railroad, which was put in service as a "pusher" upon a heavy grade, in which service it was necessary to apply the brakes frequently, and consequently to cause a rapid wear of the brake-shoes upon the tires of the wheels. After this locomotive had been in use for about four months, it became necessary to place it in the repair-shops for the purpose of returning the tires, by reason of the irregular wear on the tread of the tire by the flat-faced wrought-iron brake-shoes then used upon the drive-wheels. It was discovered at that time that the frictional contact of the flat-faced brake-shoe upon the tread of the tire wore a gutter in that portion of the tread which comes in contact with the rail, thereby producing a shoulder or ridge on each side of such gutter, upon the tread of the tire. In order to remedy this, a trial was made of the Steel shoe, or of a shoe made after the Steel patent; but it was observed that this brake-shoe wore grooves in the flanges of the tires, and that the portion of the shoe which came in frictional contact with the flange of the tire was worn away far in excess of the wear of that portion of the shoe which came in contact with the tread of the tire. After a fair trial, it was determined that it was necessary to have the brake-shoe constructed with a groove to embrace the entire flange of the tire, and to have a projection to come in contact with the tread of the tire at the throat of the flange, as well as a projection to come in contact with the tread of the tire near its outer edge, so that there would be a uniform wearing of the tread of the tire along its entire surface, and at the same time so as to obtain an equal wear upon the wearing surface of the brake-shoe. This suggested to Ross his invention, which was found to accomplish all that was desired, and was immediately adopted by the road. Since that time more than three-fourths of the railroad companies in the United States adopted, and are now using, brake-shoes constructed after his patent, and purchased of him or his licensees, and have generally acquiesced in its validity.

The affidavit of William W. Snow states that he is familiar with the experiments had with the Steel patent, both in this country and in Eng-

land, and that the result of any honest use of the brake-shoes shown in this patent has been, and will be, to create grooves or cutting shoulders upon the flange, which are not only detrimental, but disastrous, in the use of the wheel the flange of which is so cut. He says that several experiments have been made with the Steel patent in this country by persons desiring to make the same a success, for the purpose of limiting or anticipating the Ross patent, and that in every instance these efforts have been a failure. He was also informed by the head draughtsman of the Great Eastern Railroad at its shop in London, England, that they had had the same experience in attempts there to use the device shown in the Steel patent. This latter statement is, however, mere hearsay, and, of course, cannot be considered.

The affidavits of George M. Sargent, treasurer and manager of the Congdon Brake-Shoe Company, one of the complainants and a licensee of the Consolidated Brake-Shoe Company, is to the effect that the Steel patent discloses an utterly impracticable device; and that, if his company should manufacture the Steel brake-shoe, it could not be sold, for the reason that it could not be successfully used. He states that, so far as he is informed, the Chicago, Burlington & Quincy Railroad Company is the only corporation which has disputed the validity or the scope of the Ross patent, "but, on the contrary, all the manufacturers of brake-shoes, and a very large proportion, I should say two-thirds, of all the railroad companies of the United States, have fully acquiesced in the validity of the Ross patent." He states, apparently upon information only, that certain practical experiments were made with the Steel patent by the officers of the Pennsylvania Company, as well as by the officers of the Erie road, for the purpose of demonstrating, if possible, that it disclosed a practical and successful brake-shoe, to the end that the railroad companies might use such shoe without paying tribute under the Ross patent; but that these experiments demonstrated the opposite conclusion, and showed that the Steel patent could not be used economically or safely; that, as the result of such experiments, the railroad companies acquiesced in the validity of the Ross patent, and took licenses to use it.

The affidavit of Theodore M. Ely, general superintendent of motive power for the Pennsylvania Railroad Company; of H. D. Garrett, master mechanic of the West Philadelphia shops of the same road; of Frank Shepard, superintendent of motive power of the Pennsylvania Company; and of Henry D. Gordon, master mechanic of the Juniata shops of the same company,—show that the Ross device was adopted after an examination of the Steel patent, both by the Pennsylvania road and by the Philadelphia, Wilmington & Baltimore Railroad. They show the defects of the old shoe, and certify to the value of the special feature of the Ross shoe, in bringing the inner lug down to the tread of the tire. Their opinion is that the locomotives can be used, when equipped with the Ross shoe, at least 50 per cent. longer than when equipped with the flat brake-shoes originally used.

The principal affidavit in defense is that of Godfrey W. Rhodes, superintendent of motive power of the Chicago, Burlington & Quincy Rail-
v.47 F.no.13—57

road, who swears to experiments made with different styles of brake-shoes made more or less after the designs shown by Steel and Ross. His experiments indicate that, when the inner lug was made long enough to come down to the tread of the wheel, it soon wore in or near the throat of the flange deep grooves, which rendered it necessary to shorten this lug, making it conform rather to the Steel than the Ross patent; that since the change was made no difficulty has been met with, and such brake-shoes answer the purpose much better than those made with the inner lug coming down to the tread of the wheel, as shown in the Ross patent; that it is the intention of the railroad company to continue to use brake-shoes made after the Steel patent, discontinuing entirely the use of such as are made with the inner lug coming down to the tread of the wheel.

A review of these affidavits satisfies me that, while it is quite possible that the Steel shoe may be more satisfactory where the bearing of the rail is close up to the flange of the wheel, they are not adapted to cases where the rail bears in the center of the tread, and that the introduction of the inner lug, coming down the side and throat of the flange to the tread, is a valuable feature of the Ross invention. It is very improbable that, with the Steel device open to the world, and with experiments made for the purpose of ascertaining whether it could be made effective as a means of avoiding a tribute to the Ross patent, the conclusion should have been reached that it was better to pay royalties to Ross than to attempt any further use of the Steel device, unless such device were a decided advance over anything which preceded it. It is shown, too, that this device has gone into general use, and is now employed by a large majority of the railroads throughout the country, which are using brake-shoes purchased of Ross or his licensees. Now, while he seems to have made but a trivial departure from the Steel patent, a departure so slight as to raise in my mind a doubt as to its involving an exercise of the inventive faculty, yet I feel that this is a proper case for the application of the rule laid down in the supreme court in the case of *Smith v. Vulcanite Co.*, 93 U. S. 495, that, when the other facts in the case leave the question of invention in doubt, the fact that the device has gone into general use, and has displaced other devices, which had previously been employed for analogous uses, is sufficient to turn the scale in favor of the existence of invention. As Webster says in his work on Patents, (page 30:)

"The utility of the change, as ascertained by its consequences, is the real practical test of the sufficiency of the invention; and, since the one cannot exist without the other, the existence of the one may be presumed a proof of the existence of the other. Where the utility is proved to exist in any degree, a sufficiency of invention to support the patent must be presumed."

It is true that the experiments made with the Ross shoe upon the Chicago, Burlington & Quincy Railroad do not seem to have proven satisfactory, although the value of Mr. Rhodes' affidavit in that regard is somewhat impaired by the affidavit of Mr. Bates, who swears that he examined 10 locomotives belonging to this company, and found them all equipped with shoes made after the Ross design. If the affidavit of

Mr. Rhodes fails to convince us that there is no novelty or utility in the Ross patent, it at least assures us that an injunction in this case will not prove detrimental to the interests of the defendant, which has been manufacturing only for the Chicago, Burlington & Quincy Railroad. There is no question that the Steel shoe, which this road appears to have adopted, is open to use by any one in this country.

The shoes of Stilmant and Brill are too obviously unlike those of Ross to require consideration.

An injunction will issue as prayed in the bill, provided the proper amendment be made as above indicated.

COOP *et al.* v. DR. SAVAGE PHYSICAL DEVELOPMENT INSTITUTE,
Limited.

(Circuit Court, S. D. New York. June 13, 1891.)

1. PATENTS FOR INVENTIONS.—PATENTABILITY.—WALKING TRACK FOR GYMNASIUM.

Letters patent No. 358,453, issued March 1, 1887, to R. J. Roberts, for a walking track for gymnasiums, described the invention as consisting of the combination of a wooden floor, oil-painted canvas, and an interlining of thick felt, secured to the entire upper surface of the floor by glue. *Held*, on special demurrer to a bill for infringement of the patent, that an admission by the patentee that it was not new to place felt under common carpets, nor to cover a sheet of canvas with paint, would not enable the court to judicially declare that the patented combination for the purposes of walking tracks involved nothing but mechanical skill; and the demurrer must be overruled.

2. SAME.—ACTION FOR INFRINGEMENT.—PLEADING.

A bill for the infringement of letters patent must state that the invention had not been in public use or on sale for more than two years before the application therefor. It is not sufficient to state that it was not in public use or on sale with the consent of the inventor. Following *Blessing v. Copper Works*, 34 Fed. Rep. 753.

3. SAME.

While an averment in the bill that the patentee was the first inventor of the improvement, "which had not been known or used before his said invention," is sufficient to withstand a general demurrer, yet the omission of an averment that it had not been previously patented, or described in a printed publication, is a defect in form which may be reached by special demurrer, and should be remedied by amendment.

4. SAME.—INTERROGATORIES.

Interrogatories framed so as to compel defendant to disclose whether or not he had made walking tracks for gymnasiums since the issuance of complainant's patent, whether they were made as described in the patent, and, if not, how they were made and applied, are not objectionable.

In Equity. On demurrer to bill.

Fowler & Fowler and *Charles N. Judson*, for plaintiffs.

Redding & Kiddle, for defendants.

SHIPMAN, J. This is a special demurrer to the complainants' bill in equity for infringement of letters patent No. 358,453, dated March 1, 1887, to R. J. Roberts, for a walking track for gymnasiums.

The first ground of demurrer, which is stated in various forms, is that the patent is, upon its face, void for want of patentable novelty and for