

1896 THE AMERICAN DUNLOP TIRE } PLAINTIFFS;
Sep. 14. COMPANY..... AND

THE ANDERSON TIRE COMPANY..... DEFENDANTS.

Patent of invention—Pneumatic bicycle tires—Infringement.

The plaintiffs were the owners of letters-patent No. 38,284, for improvements in bicycle tires. The inventors' object was to produce a pneumatic tire combining the advantages of both the "Dunlop" tire and the "Clincher" tire, and that was done by finding a new method of attaching the tire to the rim of the wheel. They used for this purpose an outer covering the two edges of which were made inextensible by inserting in them endless wires or cords, the diameter of the circle formed by each wire being something less than the diameter of the outer edge of the crescent or "U" shaped rim that was used and into which the tire was placed. Then when the inner or air tube was inflated, the edges of the outer covering were pressed upwards and outwards, as far as the endless wires would permit, and were there held in position by the pressure exerted by the air tube. In the second and third claims made by the plaintiffs, and in their description of the invention they describe a rim "provided with an annular recess near each edge into which enters the wired edge of the outer tube or covering." In their first or more general statement of the claim is described "a rim, the sides of which are so formed as to grip the wired edges of the outer tube."

Held, that a rim with annular recesses did not constitute an essential feature of the invention, the substance of which consisted in the use of an outer covering having inextensible edges which are forced by the air tube when inflated into contact or union with a grooved rim, the diameter of the outer edges of which are greater than the diameters of the circles made by such inextensible edges.

2. The defendants manufactured a pneumatic tire with an outer covering through the edges of which was passed an endless wire forming two circles instead of one. The wire was placed in pockets, in the outer covering, which ran nearly parallel to each other except at one point where the two circles crossed each other. The wire being endless the two circles performed in respect of the inextensibility of the edges of the outer covering, the same part

and office that the wire with a single coil or circle in the plaintiffs' tire performed. There was, however, this difference that the two circles, into which the wire would form itself in the defendants' tire when the inner tube was inflated, would not be concentric, but as one circle became larger the other would become smaller. *Held*, that while the defendants' tire might have been an improvement on that of the plaintiffs', it involved the substance of the plaintiffs' patent and constituted an infringement upon it.

THIS was an action for damages for the infringement of a patented invention.

The facts of the case appear in the reasons for judgment. (1)

The case was heard at Toronto on the 27th and 28th April, 1896.

Z. A. Lash, Q.C. for the plaintiffs :

When we get a pioneer patent in any particular art, the construction given to it, the regard given to it, and the effect of it is far wider than the effect which would be given to a subsequent patent which deals with the same subject but which applies something new in connection with working out the principle which it involves. (*Pneumatic Tire Co. v. Ferguson* (2); *Gadd v. Mayor of Manchester* (3); *Badische Anilin v. Levinstein* (4).)

Upon examination of the tire manufactured by the defendants it will clearly appear that they attain their object without proceeding upon any principle at all different than that involved in the plaintiffs' patent. The operation of the two tires is precisely the same.

The evidence establishes beyond a doubt that the defendants' tire is an infringement upon the patented invention of the plaintiffs.

W. Cassels, Q.C. followed for the plaintiffs :

(1) REPORTER'S NOTE :—For a clear understanding of the issues decided in this case reference is directed to a former case between

the same parties reported *ante p.* 82.

(2) 11 R. P. C. 459.

(3) 9 R.P.C. 530.

(4) 12 App. Cas. 170.

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First, the patent has to be construed by reference to the state of the art as it existed at the time of the invention, and having regard to the state of the art, the patent has to receive the broadest construction that can be given to it compatible with the true meaning of the specification. In other words, if the specification is doubtful, if it is open to criticism, no matter what the endeavour to show the court that the patentee intended to limit what he was claiming, the court will construe it in favour of the broadest invention, if in point of fact, having regard to the state of the art, the broad invention is in reality an invention; and the patentee will not have his invention narrowed down, and the full extent of his invention conferred upon the public, unless he has so framed his specification and so framed his claim that the court must come to the conclusion that he intended to keep merely for himself the narrow construction, and to dedicate to the public that which the public had not theretofore, namely, the breadth of his invention.

In the second place, as a matter of construction, it is the duty of the court, where there are two claims differing in various respects, to so construe the patent as to give effect to both of the claims. (*Terrell on Patents* (1).)

Next, I submit that it is an absolutely erroneous principle to bring forward what a man manufactures as in any shape controlling the construction which is to be placed upon his invention. The court must take the patent, must look at the state of the art, must look to what the inventor was arriving at, and with that knowledge, and using the benevolent construction that some of the judges used, must give him everything that he has got in the patent, reading it fairly, and that is about all it amounts to.

I would refer your Lordship on the question of construction to a late case in England which goes into the question very fully. *Proctor v. Bennis* (1). That case was this: It was the invention of a radial action of throwing coal into a furnace. What the plaintiff accomplished there was this: To throw coal upon a furnace fire automatically. At the time he got his patent there was an automatic method, in fact a patent, for throwing coal, but it was done by a rectangular chute, and that threw the coal, as it were, in a body upon the fire. This man invented a radial action, which, instead of throwing it in a body on the fire, spread it, and he got his patent for that. The way the court dealt with it was this: That a patent for combination of known mechanical contrivances producing a new result was held to be infringed by a machine producing the same result by combination of mechanical equivalents of the above with some alterations and omissions, which, however, did not prevent the substance and the essence of the patentee's invention being involved in it. (*Cannington v. Nuttal* (2); *Dudgeon v. Thomson* (3); *Clark v. Adie* (4).)

As to its being a question of infringement, if we are entitled to anything this must be an infringement. If we are entitled to nothing, it is not. But, how there can be a middle course, having regard to the patent and the state of the art, it is difficult to comprehend. I can understand the learned counsel's argument if he could displace the patent altogether; but, if the patent is there, and if the patent is worth anything, it seems to me that your Lordship must conclude that this is an infringement.

E. F. B. Johnston, for defendants:

The plaintiffs claim a combination. It may or may not be a primary combination, with that we have

(1) 36 Chy. Div. p. 740.

(2) L. R. 5 H. L. 205.

(3) 3 App. Cas. p. 45.

(4) 2 App. Cas. p. 315.

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nothing to do for the moment; but I have to do with this point, namely, that if they have claimed three elements in a combination, as essential, and one of those elements is dropped out in the defendants' device and the same result is accomplished by the use of the two elements, there is no infringement, and the plaintiffs cannot be heard to say that the third element is non-essential. What they can do, and what is allowed by the authorities, is this: You may abandon it, but you have to put in a mechanical equivalent, in order to protect and preserve your combination. (*Walker on Patents* (1), and cases there cited.)

The principle which seems to be based upon common sense as well as law was followed in *Carter v. Hamilton* (2). That was in regard to a check-book; and it was held as your Lordship remembers, that the use of a clean margin for a like purpose was not an infringement, and that it could not be said that the tape was essential at the time, in order to attack the patent upon that ground.

A case to which I desire to refer is that of *Curtis v. Platt* (3) which follows up the contention that I am making, and supports the view that I am urging, viz., that having arrived at that stage where a combination must be considered as essential, each part relatively to the other, and that no combination for four elements can be brought into court, and any one of those four then declared by the plaintiff seeking to uphold his patent, or rather to punish for an infringement—it cannot be said that number four, for instance, is non-essential at the time of his proceeding. It is, as I have read from *Walker*, conclusively to be presumed that the four are essential elements. *Curtis v. Platt (supra)* comes to our aid in this way,—even if the line of my

) 3rd. ed. at p. 295.

(2) 3 Ex. C. R. 351.

(3) L. R. 1 H. L. 337.

learned friend's argument is correctly applied to us, namely, that we have adopted the inextensible wire—by saying, you may take any two or three elements out of a plaintiff's combination, if you can combine them in a different way. If you do not use all the elements, and even if you do use all the elements, so long as you accomplish by a different method the same means, in a more satisfactory way, and a cheaper way, in a more practical way, or in any other way in which you could put your patent forward as a patentable article, then you do not infringe, unless your patent is a mere colourable evasion of the plaintiffs' article and that is the sole test. There is nothing, in other words, in a monopoly giving the plaintiffs, or the patentees, a right to eliminate one, two, three or four, because these elements are admittedly all old and must be old. What the patent gives them is a right to the four elements. To that extent, and no further, will the law help them. They have no prerogative rights. Another person comes along, he takes one, two or three, and he says: I produce with three elements exactly the result you have produced with four, therefore I am in advance of you. You cannot shut me out from using these elements. I am using them in a somewhat different combination, and using them to produce the very same result you are producing. Therefore, I am entitled to a patent, unless, as I say, that criterion which I am now submitting to the court is a true criterion—unless the device of the person, the subsequent patentee, is a mere colourable evasion of the plaintiffs' right. I think, having stated that, I have stated fairly what the law is upon the question.

J. Ross followed for the defendants:

In the case of *Needham v. Johnston* (1), it is laid down that the court has nothing to do with the

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1896 "benevolent construction" of a patent in a case of infringement. In such a case the patent must be construed fairly like any other document. (*Lucas v. Miller* (1); *Plimpton v. Spiller* (2); *Edmunds on Patents* (3); *Robinson on Patents* (4); *Ticket Punch Co. v. Cowley's Patent* (5).)

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Mr. Lash replied:

By section 17 of *The Patent Act* there are clear and indefeasible rights given to a person who has invented something which was not known or used by another before, and which was not in public use or for sale with his consent for more than one year previous to his application. The plaintiffs' invention fulfilled these requirements, and there is nothing that has been done to take away such right. (He cites sections 7, 8, and 16 of *The Patent Act*.)

We are not trying here the character of the defendants' invention, but that of the plaintiffs' invention; and whether what the defendants have done is or is not an infringement of the plaintiffs' rights. It is true that the court in *Needham v. Johnston (supra)*, repudiated the doctrine of "benevolent construction" as applied to actions of infringement; but in the proper construction of a patent, in getting at what it means, the court must needs inquire into the intention of the inventor in regard to the scope of his invention, and give him the benefit of that which he is really entitled to upon a fair construction. In other words, the court will look at the substance of the thing and dissect it in order to ascertain what really is the invention,—construing the claim as made in reference to what the whole thing was intended to be. (*British Dynamite Co. v. Krebs* (6).)

- (1) 2 R. P. C. 159.
 (2) 6 Ch. Div. 426.
 (3) P. 134.

- (4) Vol. 2, p. 142.
 (5) 12 R. P. C. 185.
 (6) Good. P. C. 88.

The words in the claim to the plaintiffs' patent, "substantially as described," mean substantially as specified in regard to the particular matter which is the subject of the claim. (*Walker on Patents* (1).)

The most that can be said of the defendants' tire is that it embodies the plaintiffs' invention, *plus* something else which the plaintiffs could not use without a license from the patentee of such other device or invention. That does not alter the fact that the defendants have infringed upon the plaintiffs' invention.

THE JUDGE OF THE EXCHEQUER COURT now (September 14th, 1896) delivered judgment.

The plaintiffs seek in this action to restrain the defendants from manufacturing, using or selling tires for bicycles that embody, it is alleged, the invention or improvement protected by letters-patent numbered 38,284, which were issued to Thomas Fane and Charles F. Lavender on the 15th day of February, 1892, and which were duly assigned by the latter to the plaintiffs on the 18th day of October, 1893.

The defence principally relied upon is that the defendants have not infringed the patent mentioned. The defendants also allege that Fane and Lavender were not the inventors of the invention patented by them, that there was no novelty in the alleged invention, that it was not useful, that it was not the proper subject-matter of a patent, that it had been anticipated, that it had not been sufficiently described in the specifications, and that the letters-patent had become void by reason of the importation of the invention contrary to the statute and the condition on which they had been granted. The last issue has already been disposed of except as to a question of costs to which I shall refer again. The other issues which are set out in the

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statement of defence more fully than I have here-stated them, must, it seems to me, be found in the plaintiffs' favour; and it is not, I think, necessary to say more about them than to state the finding of the court on the facts, except with respect to the question of infringement.

The letters-patent in question were granted for alleged new and useful improvements in tires for bicycles. Having described the invention, the patentees, in the specification attached to the letters-patent and forming part thereof, claim as new:—

1. A pneumatic tire consisting of an outer tube having an endless wire along each edge thereof, an air tube partially enclosed by the outer tube provided with the usual means of inflation, and a rim the sides of which are so formed as to grip the wired edges of the outer tube, and securely hold all parts in place when the air tube is inflated to its fullest capacity, substantially as set forth.
2. In a wheel a tire consisting of an air tube provided with the usual means of inflation, an outer tube or covering curved to correspond with the curve of the air tube, each edge of the outer tube having an endless wire running therethrough in combination with the rim of the wheel, which rim is provided with an annular recess near each edge into which enters the wired edge of the outer tube or covering, substantially as set forth.
3. A tire for a wheel consisting of an air tube provided with the usual means of inflation, an outer tube or covering curved to correspond to the curve of the air tube, and having a wire or string passing through each edge in combination with the rim of the wheel having an annular recess at or near each edge into which enters the wired edge of the outer tube or covering, substantially as set forth.

The object of the invention as defined by the inventors was to produce a pneumatic tire which could be easily removed, repaired and replaced, and which at the same time would retain the elasticity obtained from the expansion of the air tube by the pressure of the air contained therein. In other words, the inventors' object was to produce a tire which would combine the advantages of the two principal forms of pneumatic tires then in use, the "Dunlop" tire and the "Clincher" tire.

Both of these tires consisted of an outer tube or covering, and an air tube provided with the usual means of inflation that the inventors proposed to make use of. The "Dunlop" tire was attached to the rim of the wheel by cement, and could not be readily detached. In the "Clincher" tire the edges of the outer covering engaged the side flanges of the rim by a hook or dovetailed formation, and the tire was held in position by the pressure exerted by the inner tube when inflated, and it could of course be readily detached when not inflated, a great advantage in the practical use of the wheel. But it was thought that this advantage was gained in the case of the "Clincher" tire at the expense of the resiliency of the tire obtainable in the case of the "Dunlop." As both were then made it was possible with the "Dunlop" to have a larger part of the tire beyond the edges of the rim than was thought to be possible with the "Clincher." That gave the "Dunlop" tire greater resiliency than the "Clincher." The inventors' object then was to produce a tire combining the advantages of both, and that was done by finding a new method of attaching the tire to the rim of the wheel. They used for this purpose an outer covering, the two edges of which were made inextensible by inserting in them endless wires or cords, the diameter of the circle formed by each wire being something less than the diameter of the outer edge of the crescent or "U" shaped rim that was used and into which the tire was placed. Then when the inner or air tube was inflated the edges of the outer covering were pressed upwards and outwards, as far as the endless wires would permit, and were there held in position by the pressure exerted by the air tube. In the second and third claims made by the patentees, and in their description of the invention which precedes the statement of what they claimed,

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they describe a rim "provided with an annular recess near each edge into which enters the wired edge of the outer tube or covering." In the first or more general statement of the claim, as will have been observed, is described "a rim, the sides of which are so formed as to grip the wired edges of the outer tube." Now, it is, I think, tolerably clear that the ordinary crescent-shaped rim may be so formed, that is that the groove in the same may be so shaped that without any annular recesses, it will grip or hold the wired edges of the outer tube. It would perhaps be more correct to say that the wired edges grip the sides of the groove in the rim, but it is easy to understand what takes place and what the inventors meant to describe. A rim with such recesses may for the tire in question be better than, and have advantages over, a rim that has no such recesses, especially in securing in the process of inflation a proper alignment of the wired edges of the outer covering, but the annular recesses do not, it seems to me, constitute an essential feature of the invention, the substance of which is to be found in the use of an outer covering having inextensible edges which are forced by the air tube when inflated into contact or union with a grooved rim, the diameter of the outer edges of which are greater than the diameters of the circles made by such inextensible edges. The defendants claim, however, and that is the first question to be determined, that the Fane and Lavender patent is to be limited to the use of rims in which there are annular recesses; in other words, though it was not put that way, that any one in making pneumatic tires is free to use outer coverings the edges of which are made inextensible by the use of wires or cords, provided only that they are not attached to rims having annular recesses, and that contention is based upon the argument that the general words of the first claim stated by the patentees

should be restricted by the preceding description of the invention. That is, that the words "substantially as set forth" with which the statement of the claim concludes should be read as limiting the patentees to the particular form of rim described. Now I do not so read them. I do not think that they so limit and narrow the invention to a particular form of rim which is not essential. It is possible, I think it is probable, that the inventors did not at the time of the invention see, or see so clearly as we now do, that the office of the annular recesses was rather to secure a proper alignment of the wired edges of the outer covering than to assist in keeping the tire on the rim. They have, however, been fortunate enough to claim a tire which was to be attached to and used in conjunction with "a rim the sides of which are so formed as to grip the wired edges of the outer tube" and there is, I think, no good reason for refusing them the full benefit of their claim.

Then there is another question arising on the issue as to infringement. The defendants in making the bicycle wheels that it is alleged constituted an infringement of the plaintiffs' patent used in a pneumatic tire an outer covering through the edges of which was passed an endless wire forming two circles instead of one. To use the description in the defendants' patent, which however is not at issue in this case, or at least not directly in issue:

This wire was coiled spirally upon itself so as to form a compound or double band which was interchangeable and reciprocating as regards its diametrical and circumferential parts. This wire was proportioned in length so that the diameters of the circles or forms into which it was coiled would correspond approximately with the diameter of the rim.

The wire was placed in pockets in the outer covering which ran nearly parallel to each other except at one point where the two circles crossed each other.

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The wire being endless the two circles performed, in respect of the inextensibility of the edges of the outer covering, the same part and office that the wire with a single coil or circle in the other case performed. But there was this difference. It is manifest that the two circles into which, when the inner tube was inflated, the wire would form itself would not be concentric, and that as under the pressure exerted by the air one circle became larger the other must become smaller. It is claimed, and it may be that this is an advantage, that in this way the tire is more securely held on to the rim of the wheel. But is it an infringement of the plaintiffs' patent? I think that it is. It would not, I am sure, be seriously contended that any one was free to use two or more endless wires on each edge of the outer covering. That might or might not be an advantage, but it would, I think, be an infringement. But why should one be permitted to use a single endless wire in two coils? It may have its advantages; it may be an improvement on the method protected by the plaintiffs' patent, and it may be patentable as an improvement. I say nothing at present as to that, but it involves, it seems to me, and includes the substance of the invention protected by the patent issued to Fane and Lavender.

There will be judgment for the plaintiffs, and the injunction prayed for will be granted. The plaintiffs are entitled to costs on all the issues except that taken on the 11th paragraph of the statement of defence.

There will, for the reasons stated at the argument, be no costs to either party on that issue or in the case of "*The Anderson Tire Company of Toronto (Limited) v. The American Dunlop Tire Company.*"

Judgment accordingly.

Solicitors for plaintiffs: *Blake, Lash & Cassels.*

Solicitors for defendants: *Rowan & Ross.*