

THE AMERICAN DUNLOP TIRE }
 COMPANY..... } PLAINTIFFS;

1899
 Jan. 16.

AND

THE GOOLD BICYCLE COMPANY, }
 (LIMITED), THE BRANTFORD }
 BICYCLE SUPPLY COMPANY, }
 (LIMITED), EDWARD L. GOOLD, } DEFENDANTS.
 WILLIAM JAMES KNOWLES, }
 AND W. H. SHAPLEY..... }

Patent for invention—Infringement—Pioneer discovery—Evidence.

Where one who says he is the inventor of anything has had an opportunity to hear of it from other sources, and especially where delay has occurred on his part in patenting his invention, his claim that he is a true inventor ought to be carefully weighed.

ACTION for infringement of a patent for invention.

The facts of the case are stated in the judgment.

October 20th to 24th.

Z. A. Lash, Q.C.; W. Cassels, Q.C.; and A. W. Anglin for the plaintiffs, cited *Pneumatic Tire Company v. East London Rubber Company* (1); *Pneumatic Tire Company v. West London Tire Company* (2); *Thompson v. Moore* (3).

B. B. Osler, Q.C., J. Ridout, and J. Ross for the defendants, cite *Erie Rubber Company v. American Dunlop Tire Company* (4); *Aitcheson v. Mann* (5); *Ridout on Patents*, nos. 146, 276; *Maxwell on Statutes*, p. 218; *Gaylor v. Wilder* (6); *Perkins v. Nashua Company* (7); *Smith v. Goldie* (8); *Nordenfeldt v. Gard-*

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| (1) 14 Cutl. Pat. Cas. 573. | (5) 9 Ont. P. R. 253. |
| (2) 15 Cutl. Pat. Cas. 129. | (6) 10 How. 477. |
| (3) 6 Cutl. P. C. 626; 7 Cutl. Pat. Cas. 325. | (7) 2 Fed. Rep. 451. |
| (4) 74 U. S. Off. Gaz. of Patents 1443. | (8) 9 Can. S. C. R. 46. |

1899
 THE
 AMERICAN
 DUNLOP
 TIRE CO.
 v.
 GOOLD.

Reasons
 for
 Judgment.

ner (1); *Holste v. Robertson* (2); *Clark Thread Company v. Wilimantic Linen Company* (3); *Walker on Patents*, (4); *American Roll Paper Company v. Weston* (5); *Consolidated Fruit Jar Company v. Wright* (6); *Ellithorpe v. Robertson* (7).

Mr. Cassels replied.

THE JUDGE OF THE EXCHEQUER COURT now (January 16th, 1899), delivered judgment.

The plaintiff company brings this action against the defendants for an injunction to restrain them from infringing Letters Patent numbered 38284; granted on the 15th day of February, 1892, to Thomas Fane and Charles F. Lavender, for improvements in tires for bicycles, and for damages for the infringement of such letters-patent. The plaintiffs, to whom the letters patent have been assigned, rely upon the first claim in the specification attached thereto, by which the patentees claimed as new:—

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.

The defences set up are: (1) that what is here claimed as new was anticipated by an English patent, numbered 14563, granted to Charles Kingston Welch, for an improvement in rubber tires and metal rims or felloes of wheels for cycles and other light vehicles; and (2) that the defendants have not infringed.

Welch's provisional specification is dated on the 15th of September, 1890. His application was made

(1) 1 *Cutl. Pat. Cas.* 61.

(2) 4 *Ch. D.* 9.

(3) 140 *U. S.* 481.

(4) (3 ed.) *sec.* 55, 61.

(5) 45 *Fed. Rep.* 691.

(6) 94 *U. S.* 96.

(7) 2 *Fish. Pat. Cas.* 83.

on the 16th of the same month. His complete specification was presented on the 16th of June, 1891, was accepted on the 25th of July of that year, and was published in England about the 19th of August, 1891. Figure 15 of the sheet of drawings accompanying the complete specification shows a cross-section of a tire identical practically with that described in Fane and Lavender's specification and shown in Figure 1 of the tracing attached thereto. This tracing is dated of the 2nd of November, 1891, and the specification of the third day of the same month, and it is conceded that the Fane and Lavender patent must be defeated unless it can be shown that the improvement covered thereby was invented prior to the publication of the Welch patent. The plaintiffs, to meet that view of the case, allege that the improvement was discovered by Fane and Lavender as early as August, 1890. If that can be made out the validity of the patent is, in respect of the matter now in discussion, established; and the burden of making it out is, as Mr. Osler contended, on the plaintiffs.

This issue of fact was first raised in this court in the case of *The Queen v. Fane and Lavender*, in which the present plaintiffs sought to have the patent in question set aside. This case came on for trial in October, 1893, and was settled by the parties, the plaintiffs paying Fane and Lavender eleven thousand dollars, and taking an assignment of the patent. The same issue of fact was in 1896 raised in the case of the *American Dunlop Tire Co. v. The Anderson Tire Co.*, (1) a large part of the evidence taken in which has, by consent, been read as evidence in this case. The witnesses who testify to the invention having been made in the summer of 1890, as early at least as the last of August of that year, are Fane and Lavender, the patentees, Horace Pease, who at that

1899
 THE
 AMERICAN
 DUNLOP
 TIRE CO.
 v.
 GOULD.
 ———
 Reasons
 for
 Judgment.
 ———

(1) 5 Ex. C. R. 194.

1899
 THE
 AMERICAN
 DUNLOP
 TIRE Co.
 v.
 GOULD.
 ———
 Reasons
 for
 Judgment.
 ———

time had charge of their business at Buffalo, New York, and Mrs. Fane. Fane and Lavender describe how in July or August of 1890 Lavender was experimenting with pneumatic tires, the experiments being made in the shop or factory in the evening, and directed in the first instance to attaching an outer covering to a crescent shaped rim by an annular plate; and how in the course of such experiments they found that by putting wires in the edges of the outer covering, so as to make the edges inextensible, the outer covering would, when the inner tube was inflated, remain in position without any such plate. And they say that they made two rims with pneumatic tires attached in this way, and put them in a frame and rode them a few times to satisfy themselves that they were all right. The rims, or at least one of them, said to have been used for these experiments were produced at the trial in 1893, and were afterwards returned to Fane and Lavender and disposed of with other scrap. They were not produced at the trial in 1896. The tires had, it was said, been destroyed some nine or fourteen months after they were made, and were not produced at the first trial. Until destroyed the tires and rims were kept in the enamelling room in their workshop or factory covered with some old sacks or material of that kind. The reason given by Fane and Lavender for the delay in applying for a patent for their invention in 1890, is that the opinion of *two* of the English correspondents, Harry James and William Smith, of Birmingham, was adverse to the pneumatic tire, and that they did not care then to incur the expense. James' letter dated August 28th, 1890, and Smith's letter dated September 16th, 1890, are produced. In the summer of 1891 Fane went to England and was there, it would appear, at the time when the Welch specifications were published. He left Canada in

July and returned on the 19th of September. In November following, as has been seen, he and Lavender applied for a patent, and they then and subsequently took steps to manufacture bicycles according to the improvement described in their specification, and to which reference has been made. Then as to corroboration, Horace Pease says that after a bicycle meet at Niagara Falls, which he says was held about the 19th or 20th of August, Fane and Miss Creed (afterwards Mrs Fane) came to their place of business at Buffalo, and that Fane then told him of their discovery and made for him two sketches on the back of a receipted account showing the improvement now in question, and also the mode of attaching the outer cover to the rim by an annular plate or bend. Fane says the meet was towards the end of August and that his conversation with Pease, and the drawing of the sketches, took place on the 27th or 28th of August, 1890. The account which is produced bears date of the 25th of August, 1890. Mrs. Fane recalls the occasion though she cannot fix the date, and she identifies the sketches then made. Pease also says that in the latter part of September, or the first of October, of the same year he went to the Toronto Bicycle Club's Race Meet, and while at Toronto, in the enamelling room in Fane and Lavender's factory, he saw the tire and rim that Fane and Lavender had made; that it was at the time deflated and that he pushed the cover to one side and could see that there were endless wires.

In the *Anderson case* I found the issues raised by the defences for want of novelty and anticipation in favour of the plaintiffs. In the present case there is evidence which was not before me in that case, and which it is contended should lead me to a different conclusion. The object of this additional evidence is to show that as to some of the statements Fane and Lavender are

1899
 ~~~~~  
 THE  
 AMERICAN  
 DUNLOP  
 TIRE Co.  
 v.  
 GOULD.  
 ———  
 Reasons  
 for  
 Judgment.  
 ———

1899  
 ~~~~~  
 THE
 AMERICAN
 DUNLOP
 TIRE Co.
 v.
 GOOLD.
 ———
 Reasons
 for
 Judgment.
 ———

manifestly in error, that the experiments that they say they made in 1890 were really made in 1891, and that there was in short a conspiracy between Fane, Lavender and Pease to fabricate the evidence by which in 1893 they sought in the first case to support their patent. The only direct evidence of any such conspiracy is that of Henry W. Birch whose testimony as to that is not, I think, worthy of belief. Neither am I able to give credit to his evidence in other particulars in which it is in conflict with that of Fane or Lavender or Pease. As to the other witnesses who speak of the experiments being made by Lavender in 1891, I do not doubt that he was making experiments then, and what they say may be true, and yet it may also be true that he made the experiments in July or August, 1890, that he and Fane testify to. Then some of the witnesses with more or less opportunity for observation say that they did not see in the enamelling room of the factory any tires such as Fane and Lavender speak of. But that does not prove that the tires were not there, though it is, I think, clear that they could not have been there during a period of nine to fourteen months, as stated by Fane and Lavender. There are some other discrepancies in their evidence to which I need not refer in particular. These and the delay in applying for the patent to a date subsequent to the publication of the Welch patent throw a measure of doubt on the story by which it is sought to supplant the impeached patent. That delay is however accounted for, and I think in a reasonable and satisfactory way. Then, having regard to the state of the art, there is nothing in itself improbable in the story that the improvement mentioned was discovered in 1890. There is nothing improbable in the statement that a man of Lavender's skill, experience and bent of mind should make the discovery; nothing it seems to me in itself more improbable than that Welch, in Eng-

land, or Brown and Stillman, in the United States, should in the same year, or early in the next, hit upon the same device. Of course, where one who says that he is the inventor of anything has had an opportunity to hear of it from other sources, and especially where there has been delay such as has occurred here, his claim that he is a true inventor and not a pirate, ought to be carefully weighed; but after all it is a question of evidence, and the credit under all the circumstances ought to be given to the witnesses by which the claim is supported. In this case it depends upon the credit to be given to the testimony of the four witnesses, Fane, Lavender, Pease and Mrs. Fane. If, in the main, credit is to be given to their evidence the impeached patent stands, if not it falls. And as to that it is clear of course that the story they tell is, in the main, correct, or else it is fabricated for the purpose of supporting the patent when first attacked. Now, as to that, I do not think that it is fabricated. I have had the opportunity on more occasions than one of watching very closely the demeanour of these witnesses when giving their evidence on the question now in issue, and whatever discrepancies there may be in their evidence—and no doubt there are some—and whatever comment it may be open to—and there is no doubt it is open to some comment—they have appeared to me desirous of telling the truth as far as they knew it. There was nothing in the demeanour of either of them, or in the manner in which they gave their evidence, to lead me to the conclusion that either of them was wilfully giving false testimony. I accept the evidence of Fane, Pease and Mrs. Fane, of what took place in the office at Buffalo as substantially true, and I attach great importance thereto. I do not understand it to be suggested that Mrs. Fane is telling what she knows to be untrue. If she is not, then some

1899
 THE
 AMERICAN
 DUNLOP
 TIRE Co.
 v.
 GOULD.
 ———
 Reasons
 for
 Judgment.
 ———

1899
 THE
 AMERICAN
 DUNLOP
 TIRE Co.
 v.
 GOOLD.
 —
 Reasons
 for
 Judgment.
 —

sketches of tires were made on that occasion to which she and Fane and Pease testify. She identifies those that are produced on the back of the account of August 25th, 1890; and is it not more probable that these are the sketches then made than that those made were lost or destroyed, and the sketches now produced made by Fane or Pease on a paper carefully selected by them for the purpose of the trial of 1893. Such a thing is of course possible, and sketches having been made it would be possible for Mrs. Fane to be deceived or mistaken as to those now produced; but I see no good reason to believe that such a fabrication of evidence has taken place. If then we have the sketches that Fane made on that occasion it is clear that he then had a very distinct conception of the invention for which he and Lavender subsequently obtained a patent. Having got that far it is not difficult to believe that he acquired his knowledge from the experiments that he and Lavender say they made in the early part of that month, that is of August, 1890, or in the latter part of July of that year.

On this branch of the case I find that Fane and Lavender were inventors of the improvement in tires for bicycles mentioned in the first claim of the specification attached to Letters Patent numbered 38284, issued to them on the 15th of February, 1892; that such improvement was not, within the meaning of the 7th section of *The Patent Act*, known or used by any other person before their invention thereof, and that the letters patent issued to them therefor are good and valid.

That brings us to the question of infringement, in dealing with which it is necessary to come to some conclusion as to what the invention or discovery was for which the patent issued, and whether it is to be given a broad or narrow construction. The Welch

patent has in England, in the cases on which the plaintiffs rely, been given a wide construction (*Pneumatic Tire Co. v. The East London Rubber Co.* (1), and *Pneumatic Tire Co. Ltd. v. The West London Rubber and Tire Co Ltd.* (2)); while a similar patent granted in the United States to Brown and Stillman has in the case of the *Erie Rubber Co. v. The American Dunlop Tire Co.* (3), been given a much narrower construction and limited to a combination in which the improved tire is attached to rims provided with annular recesses, or some equivalent therefor. The particular point in controversy here is whether or not a like limitation is to be put upon the Fane and Lavender patent, or whether so far as the first and more general claim of the specification is concerned, it is open to a construction which would include the use of the improved tire upon any rim to which it was found to be adapted. In the *Anderson* case, to which reference has already been made, I had to construe the claim of the specification now in question, and I there came to the conclusion that it was not to be limited to a combination in which rims with annular recesses were used. It seemed to me that, having regard to the state of the art at the time, the substance of the improvement in tires for bicycles that Fane and Lavender discovered was that by using an outer covering, the edges of which were made inextensible by wires, and of a diameter less than the diameter of the outer edges of a crescent shaped rim, the tire, when the inner tube was inflated, would be securely held to the rim; and that they were entitled to a patent for their discovery irrespective of the form of the rim to which it might be found to be adapted. That far my view has, I think, been supported by the

1899
 THE
 AMERICAN
 DUNLOP
 TIRE CO.
 v.
 GOOLD.
 Reasons
 for
 Judgment.

(1) 14 Cutl. Pat. Cases, 77 and 573. (2) 15 Cutl. Pat. Cases, 129.

(3) 74 U. S. Off. Gaz. of Patents, 1443.

1899
 ~~~~~  
 THE  
 AMERICAN  
 DUNLOP  
 TIRE Co.  
 v.  
 GOOLD.  
 ———  
 Reasons  
 for  
 Judgment.  
 ———

English cases to which reference has been made. The more doubtful question is as to whether or not Fane and Lavender applied for and were given a patent for all that they were entitled to. That depends upon the construction of the specification, and the question is, I think, not free from difficulty. The second and third claims made in the specification are in terms limited to combinations in which rims having annular recesses are used. The first claim which has already been quoted is in more general terms and open to a wider construction, unless the concluding words "substantially as set forth" are to be read as involving a like limitation. These words refer to the preceding description of the improvement, in which and in the figures shown in the tracing attached thereto are mentioned and shown rims with annular recesses and, with reference to the claim now in question, no other form of rim. But notwithstanding that it seems to me that in a case of this kind where there is great novelty and merit in the discovery the claim is not to be limited to the form of rim described unless that is essential; and that the description must be taken to include not only the form of rim described and shown, but any form of rim to which the actual discovery may be adapted; that is, in short, that where the mode or manner of attaching the outer covering to the rim is essentially and in substance the same as that invented and described, then such mode or manner is in the concluding words of the claim "substantially as set forth." Is a rim with annular recesses, or some equivalent therefor, an essential feature of the invention? That it affords the best and most convenient form of rim for the class of tire in question appears to be clear, and there is some evidence, including that of the inventors, which goes to show that such a rim is essential. It seems to me, however, that the better view is that the annular

recesses are not an essential. As to that I agree with Dr. Benjamin, whose opinion has the support of successful experiments made with rims in which there were no such recesses, nor any equivalent therefor.

Then further as to the infringement, it is necessary to see what the defendants have done. In the first place they made a few wheels in which through the edges of the outer covering of the tire was placed a coil of wire "consisting of a plurality of convolutions." The ends of the coil were not joined together or fastened to the rim, but were held in place by friction and the pressure of the inner tube when inflated. Only a few of these were made, and the plaintiffs have for that reason not pressed that part of the case. Then they adopted another mode of attaching the covering to the rim. They put a wire through the edges of the cover, the wire having two convolutions. The cover was then placed on the rim and the ends of the wire drawn together and fastened with a cord. Then the inner tube was inflated and the tire held in place in the same manner substantially as that described in the Fane and Lavender patent. This mode of attaching the tire to the rim was not however found to work well, and the defendants adopted another plan, which consisted in turning a short piece at each end of the wire so as to form hooks, which after the outer covering was placed on the rim and the wires drawn up tightly were inserted in holes made in the rim to receive them. First one turned end of the wire or hook was placed in the hole made for it in the rim, then the wire was drawn up by hand as tightly as possible and the other turned end or hook inserted in the hole in the rim provided for it. In some cases more than two holes were provided so that if anyone in taking off the tire could not draw the wire as tightly as it was at first

1899

THE  
AMERICAN  
DUNLOP  
TIRE Co.  
v.  
GOULD.

Reasons  
for  
Judgment.

1899  
 ~~~~~  
 THE
 AMERICAN
 DUNLOP
 TIRE CO.
 v.
 GOOLD.
 ———
 Reasons
 for
 Judgment.
 ———

drawn he would find a second hole ready for use. In general two convolutions of the wire were used, and the ends overlapped each other a few inches. The wires were lubricated so that they could be more tightly drawn together. It was contended for the defendants that an outer covering put on in the manner briefly described was held in place by the wires being in two places actually attached to the rim and by the pressure of the edges of the covering against the rim; that there was no motion or practically no motion of the edges of the cover when the inner tube was inflated, and that the same relative position of cover and rim was maintained throughout; that in fact the cover was clamped to the rim by the wires. That contention cannot, it seems to me, on the evidence submitted, be sustained. It seems clear that there is some motion of the edges of the outer cover under the inflation of the inner tube, and that is practically held on the rim in the same manner as the Dunlop or Fane and Lavender tire is held on. No doubt there are differences. In the mode adopted by the defendants the wires are not made inextensible until the cover is placed on the rim. But the moment the ends of the wires are fastened in the holes provided in the rim the wires become inextensible. Not being endless or otherwise inextensible the outer covering is put on and taken off the rim in a manner different from that followed with the Fane and Lavender tire, and the covering may be put on a rim that would not be suitable for such a tire. Of course detachability is one of the things aimed at; one of the advantages of the Fane and Lavender and similar tires. But detachability is useless unless the tire is firmly held in position when in use, and the fact that by making the edges of the outer cover inextensible and with diameters less than the diameters of the outer edges of the rim the

cover will under the inflation of the inner tube remain securely attached to the rim is the leading feature of Fane and Lavender's invention. It is no use, it seems to me, for the defendants to say we put the outer cover on the rim and take it off in a way different from that described by Fane and Lavender's specification if in fact it is when on held in position, as I think it is, in substantially the mode or manner protected by their patent. If I am right in the view I have taken that the latter is not to be limited to a combination of which a rim with annular recesses forms part, I have in this matter of the infringement the support of the decision of Mr. Justice Romer in the *Pneumatic Tyre Co. Ltd. v. The West London Rubber and Tyre Co. Ltd.* (1) in which he held that a similar mode of attaching the outer cover to the rim was an infringement of the Welch patent.

Of wheels in which the tires were attached to the rims by fastening the ends of the wires with a cord in the manner described the defendants made over a thousand, and of these in which the device lastly described was used they made a great number. As to both they have, I think, infringed the plaintiffs' patent, and the latter are in my opinion entitled to an injunction and to damages for the infringement. There will be judgment for the plaintiffs with costs, and upon application therefor there will be a reference to take an account of such damages.

Judgment accordingly.

Solicitor for suppliants: *Blake, Lash & Cassels.*

Solicitor for respondents: *John G. Ridout.*

1899
 THE
 AMERICAN
 DUNLOP
 TYRE CO.
 v.
 GOOLD.
 ———
 Reasons
 for
 Judgment.
 ———

(1) 15 *Cutl. Pat. Cas.* 129.