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 April 5.  
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BETWEEN

EDMUND CONWAY..... PLAINTIFF ;

AND.

THE OTTAWA ELECTRIC RAIL- }  
 WAY COMPANY..... } DEFENDANTS.

*Patent for invention—Wing Snow-plough—Experimental public use—  
 Limited interest of public invention—Defeat of Patent.*

The use of an invention by the inventor, or by other persons under his direction, by way of experiment, and in order to bring the invention to perfection is not such a public use as, under the statute, defeats his right to a patent. But such use of the invention must be experimental, and what is done in that way must be reasonable and necessary, and done in good faith for the purpose of perfecting the device or testing the merits of the invention ; otherwise the use in public of the device or invention for a time longer than the statute prescribes will be a dedication of it to the public ; and when that happens the inventor cannot recall the gift.

**ACTION** for the infringement of a patent for improvements in snow-ploughs for street railways.

The facts of the case are stated in the reasons for judgment.

February 3rd 1904.

The case was heard at Ottawa.

*W. D. Hogg, K.C.*, for the plaintiff, contended that because the defendants had infringed plaintiff's invention before he had obtained a patent, but while he was working with it in its experimental stage, such fact could not be relied on as a defence to the action. The statute allowed an experimental user, and during such user the inventor was protected against infringement.

As to the merits of the patent, the particular thing which results in this patent is the position of the scraper, and the vertical movement which it has along its whole length. The combination of pinion and rack-bar are parts of a combination presenting a novelty or new feature in snow-ploughs. The pith and marrow of this invention is the fact that by this combination, that is by a simple feature of the scraper resting on a rack-bar, a result is produced of scraping, for a width of eight or nine feet, a path along the streets, so that sleighs and vehicles have a smooth and level road-bed.

That is the pith and marrow of this invention. It may be contended that this is not an invention, not a patentable device by reason of its apparent simplicity; but there are many cases in which the very simplicity of the device makes it valuable and gives it utility, although the average mind wonders why it had never been thought of before, it is so simple. There is one thing that distinguishes the plaintiff's combination of devices from other snow-ploughs, and that is that where their mechanism is most intricate, involving wheels and pulleys and ropes, the plaintiff's is the perfection of simplicity. The expert called by the defendants was unable to say that the plaintiff's device did not produce a more favourable result than the others he had examined.

As to the question of anticipation, I submit that this combination was never before applied to snow-ploughs; and so the argument of anticipation falls to the ground. We have a new and useful device. We could have no better evidence of this than that given by Mr. Hutcheson, the Superintendent of the defendant company's railway; and he was convinced of its utility by this one feature of vertical motion. Mr. Hutcheson says that they have a small scraper or brush, that plays vertically on the rail, in use on the Ottawa

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Electric Railway; but that could not be seriously put forward as an anticipation of our vertical motion, because it is confined to the width of the rail, and no one would pretend that it was an adequate device to apply to the cleaning of streets. The best evidence of the novelty is that as soon as our device was seen it was imitated.

With regard to the experimenting by the plaintiff with his invention, we had a full year in which to make such experiments. We did make two ploughs in 1899, but those were merely experimental, and, proving unsatisfactory, were broken in the yards. In the winter of 1900 the plaintiff made two ploughs, one with one wing and one with two. But at that time he was still studying his invention, and he was repeatedly during the time in which they were in use improving the ploughs. And it must be borne in mind that by reason of the nature of the invention and the object for which it was intended, the experiments could only be made in public and could only be made by a street railway company. He could not make experiments in his back-yard, they had to be made in the face of the public; but I submit that under the cases in doing this he was not making public his invention within the contemplation of the statute. It must be remembered also that it was not with profit to himself that the Quebec Railway used his machines to scrape the road. All this time he was experimenting until his mind was convinced that his device was complete. It may be said that what he was doing all this time was in the way of repairs, and that adding weights to the top of the scraper was not improving the device; but in answer to that, I say, is that the object of the scraper was to clean the streets, and these experiments were with a view of making the scraper as wide as possible and ascertaining how

it should be strengthened and weighted to make it effective for the greatest width. And so in making the wing heavier he was merely in the process of arriving at a conclusion as to how wide he could make the wing and conserve its success and utility. So I say that he had all the season of 1900 to experiment in and develop the complete idea, and within a year from that time he had applied for his patent and so was within the statute.

Now what is an experiment in view of the cases? I submit that experiments such as the plaintiff made are purely experiments and no public user. *Edmunds on Patents* (1). I say that the cases and authorities show that where the prior user is merely experimental there is no invalidity arising from the user. *Newell v. Elliott* (2); *Bentley v. Fleming* (3); *Smith v. Davidson* (4); *Hills v. London Gas Co.* (5); *Summers v. Abel* (6); *Frost on Patents* (7); *Ridout on Patents* (8). I submit that if he was using it in public for profit it would be another question; and the most that can be said against us is that there was public user, if any public user at all, by the Quebec Railway for less than a year before the patent was applied for.

A man making a device and exercising his ingenuity must arrive at some stage when he thinks it a success, and I say that in this case that stage was not reached before 1900. To determine the experimental character of the user we must ask what was he doing? Was he holding it out to the public as a completed machine? Or was he testing its sufficiency?

*F. A. Magee* followed for the plaintiff, contending that even if eighteen months has been taken by the

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(1) 4th ed. p. 66 and cases then cited.  
 (2) 27 L. J. C. P. 337.  
 (3) 1 C. & K. 587.  
 (4) 19 C. B. 690.  
 (5) 5 H. & N. 312.  
 (6) 15 Grant, 532, at pp. 534, 537.  
 (7) 2nd ed. p. 105.  
 (8) P. 67.

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plaintiff to make these experiments he had not infringed the statute, because there was really but an experimental period of six or eight months out of the eighteen months. It was only three months of the winter season at the most that he could have carried on his experiments, and so the statute was not infringed. *Frost on Patents* (1); *Thomson v. American Braided Wire Co.* (2).

None of the American patents put in evidence contained an automatic action like this. Nor is it a feature of any of those patents to have a rack-bar supporting the wing of the plough.

*F. H. Chrysler, K.C.*, for the defendants, contended that there was want of novelty in the particular combination claimed by the plaintiff. There is no novelty in the running gear or in the inclined wooden plane with a steel shoe. The wheel, pinion and pawl are common and public. They are in use for brakes on street cars everywhere. The wheel and pinion are as old as the Gravath (U.S.) patent of 1869.

But what is most fatal of all is the fact that the vertical play of the wing on the rod, which is claimed here as the pith and marrow of the invention, is not claimed in the patent of the plaintiff.

The (U.S.) patent of Matthews shows a vertical movement in the front hinge. As to the combination, we have not infringed the combination claimed by paragraphs 5, 6, 7, 8 and 9 of the patent. It strikes me that what is not claimed there is the vertical play of the runner which is relied on now. In regard to the hinge in front admitting of vertical movement and the supporting rack-bar, the latter in itself being or not being a new device, its relation to the plough is brought about by no new means.

(1) 2nd Ed. pp. 28, 33, 34.

(2) 6 Cutl. R. P. C. 518.

They claimed a combination of all these known things, and their claim is too large. *Clark v. Adie* (1).

Then with regard to the want novelty in the front hinge and its utility.

[BY THE COURT: We need have no difficulty about the question of utility, since you use it on your railway.]

As to the public user of the invention, section 7 of *The Patent Act* is so clear and free from ambiguity that no cases need be cited on that point. The facts of this case show clearly that there has been a public user of the plaintiff's invention for more than one year previous to his application for a patent. It was in use publicly on the Quebec Street Railway during the entire seasons of 1899 and 1900.

I submit that experimental use does not mean public use. What the plaintiff did was no limited imparting to the public which an inventor is obliged to do in order to perfect his invention. (*Summers v. Abell* (2); *Bonathan v. Bowmanville Mfg. Co.* (3); *Adamson's Patent* (4); *Carpenter v. Smith* (5). *Newall's Patent*, cited by the plaintiff, is a case that stands by itself. The nature of the invention demanded such a public use as was made of it. In conclusion I say that the two ploughs, one with one wing and one with two, were used by the Quebec Railway in 1900. They were used continuously, and so that a large number of walkaway ploughs were done away with. No change was made by the plaintiff by reason of his experiments during that season except adding weights, which had nothing to do with the patentable part of his invention. He has broken the statutory requirement that the invention should not be in use for more than one year.

(1) 2 App. Cas. 315.

(2) 15 Gr. at p. 539.

(3) 31 U. C. Q. B. 413.

(4) 6 DeG. M. & G. 420.

(5) 9 M. & W. 300.

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*C. J. R. Bethune*, followed for the defendants. One important fact distinguishes the cases cited by counsel for the plaintiff from this case, and that is that in those cases the patentees themselves were using the invention, and in this case it was not the patentee but a third party, the Quebec Street Railway Company. Therefore the case falls within the provisions of section 7 of *The Patent Act*. The Quebec Railway were using the machines in their ordinary business. *Worley v. Tobacco Co.* (1); *Smith & Griggs v. Sprague* (2).

The evidence does not show experimental use. In his examination for discovery nothing was said about experimental use by the plaintiff. The plaintiff's word cannot determine "experimental use"; there must be other evidence.

Then, why was no caveat filed by the plaintiff, if he were experimenting during all this time? Almost any man of common sense would have filed a caveat had it been his intention to apply for a patent. (*Frost on Patents* (3).

THE JUDGE OF THE EXCHEQUER COURT now (April 5th, 1904) delivered judgment.

The action is brought against the defendants for the infringement of letters-patent of invention numbered 73,623 issued to the plaintiff on the 29th day of October, 1901. for alleged new and useful improvements in snow ploughs.

For some years prior to July, 1901, the plaintiff was in the employ of the Quebec Railway Light and Power Company. That company operates at the City of Quebec a street railway, and during the winter it was the plaintiff's duty to superintend for them the removal

(1) 104 U. S. 340, at p. 344. (2) 123 U. S. 249.  
 (3) 2nd Ed. p. 36.

of snow from the streets used by the company. Prior to the winter of 1899-1900 they had for that purpose used what is known as the walk-a-way ploughs drawn by horses. In November or December of 1899 the plaintiff devised and caused to be made at the company's shops a snow plough or scraper that in principle was the same as that for which he afterwards took out his patent. This plough or scraper was attached to a street car and operated by electric power. The first plough made had only one wing. Then later, during the same winter, another was made with two wings, the principle being the same in both ploughs. These ploughs were made without any attempt at secrecy, and were in the ordinary course of operating the railway used publicly to remove the snow adjacent to the company's rails on the city streets. They were made and operated at the company's expense, and used under the plaintiff's directions for their benefit. On the whole they did the work for which they were made with a reasonable degree of success. But as was to be expected they were not perfect; and the actual use suggested some changes and improvements. As for instance, the wing as first constructed was not found heavy enough and it had to be weighted. It was not quite large enough and had to be extended. The materials used for the wings and to attach them to the car were not strong enough, and from time to time repairs and renewals were necessary. But there was no change in the principle on which the ploughs were constructed. The combination and relation of the several parts remained the same.

The plaintiff, with the experience he had gained, in the winter of 1899-1900, had two new ploughs made in the autumn of 1900. As in the former case they were made at the company's expense, and were

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publicly used for their benefit. From the first they appear to have been capable of successful operation without further experiment, and have since been used by the company in the ordinary course of their business. The 1899-1900 ploughs were discarded, and cut or broken up, the materials of which they were made being used in part in constructing the two ploughs turned out in the autumn of 1900. The plaintiff in July, 1901, ceased to be employed by the Quebec Railway Company. In October of that year he applied for letters patent for his invention, and, as stated, these were issued to him on the 29th of that month. In November, 1901, Mr. Hutcheson, the superintendent of the defendants' street railway at Ottawa, was at Quebec, where he was shown one of the snow ploughs that had been made for the Quebec Railway Company; and after his return to Ottawa he caused to be made for use on the defendants' railway snow ploughs constructed substantially in accordance with the principle and combination used in the plough he had seen at Quebec. These ploughs so made for the defendants have since been used by them without the leave of the plaintiff; and they propose to continue such use against his protest and without compensation to him unless restrained from so doing.

In their statement in defence the defendants allege, (1) that they have not infringed the plaintiff's letters-patent; (2) that the alleged invention is not new; (3) that it is not the proper subject matter of letters-patent; (4) that the plaintiff is not the first and true inventor of the alleged invention; (5) that it is not useful; and (6) by an amendment made after the examination of the plaintiff for discovery, and a short time before the hearing, that the alleged invention was in public use at the City of Quebec with the con-

ent and allowance of the plaintiff for more than one year previous to the date of the plaintiff's application for his said letters-patent.

In the plaintiff's snow plough the wing is attached to the front of the car by a hinge that admits of a few inches of vertical play or movement. I do not think there is anything new in such a device considered by itself. Then a rack-bar with appropriate appliances is used for extending the wing and drawing it in again when necessary. That is not new. But the rack-bar in the plaintiff's plough has another office, namely, to support the wing; and it is so attached thereto as to admit of a few inches of vertical play or movement corresponding to that obtained with respect to the front hinge. So far as I have been able to appreciate the evidence it appears to me that the plaintiff was the first to use the rack bar for this purpose and in the way in which he has used it. But whatever may be said of the several parts or appliances used to make the plaintiff's plough, there can, I think, be no doubt so far as the evidence in this case goes, that the plaintiff was the first to arrange and combine them in the manner in which we find them described in his letters-patent and used in his plough. In the result he has succeeded in making a very useful plough, an important feature of which is that, within limits, it automatically adjusts itself when in use to the irregularities of the surface over which it is moved. There is no question about its successful use on the Quebec Street Railway; and the defendants themselves have by their conduct borne strong testimony to its utility. It appears to me, and I find, that there was in the alleged invention novelty, utility and subject matter, and that the plaintiff was the first and true inventor thereof.

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The issue as to the public use of the invention at the City of Quebec with the plaintiff's consent and allowance for more than one year previous to the date of his application, presents, I think, much greater difficulty. That the invention was used in public for a time longer than that allowed by the statute is beyond question. That is not denied. But it is said that the use made in the winter of 1899-1900 of the ploughs constructed under the plaintiff's instructions and in accordance with his invention, was experimental, and that such use though public, is not to be reckoned against him; that it does not defeat his patent; that he had a year after his invention was perfected, and the second ploughs were turned out, in which to apply for his patent; and that he made his application within that time. It is well settled, it seems to me, as well in Canada as in England and the United States, that the use of an invention by the inventor, or by other persons under his direction by way of experiment, and in order to bring the invention to perfection, is not such a public use as under the statute defeats his right to a patent (1). But there must be experiment, and what is done in that way in public must be reasonable and necessary, and be done in good faith for the purpose of perfecting the device or testing the merits of the invention (2), otherwise the use in public of the device or invention for a time longer than the statute prescribes will be a dedication of it to the public; and

(1) *Bentley v. Fleming*, 1 C. & K. 587; *Newall v. Elliott*, 4 C. B. N. S. 269; *Summers v. Abell*, 15 Gr. 532; *Elizabeth v. Pavement Company*, 97 U. S. R. 126; *Railway Register Manufacturing Company v. Broadway and Seventh Avenue Ry. Co.*, 22 Fed. R. 655; *The Useful Patents Company, Limited v. Rylands*, 2 Cutl. R. P. C. 255; *Harmon v. Struthers*, 43 Fed. R. 437.

(2) *Re Adamson's Patent*, 6 DeG. M. & G. 420; *Bonathan v. The Bowmanville Furniture Mfg. Co.*, 31 U. C. Q. B. 413; *Egbert v. Lippman*, 104 U. S. R. 333; *Hall v. Macneale*, 107 U. S. R. 90; *Smith & Griggs Mfr. Co. v. Sprague* 123 U. S. R. 249; *Root v. Third Avenue Ry. Co.*, 37 Fed. R. 673; *Thomson-Houston Electric Co. v. Lo-ain Steel Co.*, 117 Fed. R. 249.

when that happens the inventor cannot recall his gift, and no afterthought will avail him.

Neither will it make any difference if, as in the present case, the general public can have little or no interest in the matter; and that the gift will enure not to their benefit but to the benefit of a few or at most to a limited number of companies who may be able to save themselves some expense by using the invention.

Asked when he first thought of applying for a patent, the plaintiff answered that he first thought of it when he had the second ploughs completed. That answer taken by itself is not consistent with the view that in the winter of 1899-1900 he was experimenting with an invention that he was seeking to test by experiment. But later on he qualified that statement by saying that when he made the first two ploughs he had the intention to apply for a patent when they would be completed. The evidence on that point cannot, I think, be considered to be altogether satisfactory; and there is, it seems to me, a good deal to be said for the view that the principal object that the plaintiff and his employers had in view during the winter of 1899-1900 was the removal of snow from the streets used by them and not the making of experiments with a view to testing an invention that the plaintiff had made; that any experiment or test to which the snow ploughs that were then used were subjected was an incident of their use in public, and not that such use in public was a necessary incident of the experiments or tests that were being made. There is certainly that difficulty about the case, and I have found it a serious one. On the other hand that the use of these ploughs in the winter of 1899-1900 was in a way experimental, there can be no doubt. The ploughs used had not then got beyond the experi-

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mental stage. If nothing better had ever been made the invention would not, I think, have been really useful. There was no way of knowing whether they would ultimately prove successful or not, or of improving them except by using them for the purpose for which they were designed, and that could not be done in other than an open and public way. In that respect I do not think that more than what was reasonable and necessary was done. And it was not until the ploughs that were made in the autumn of 1900 had been completed and operated that the plaintiff was in a position to know with certainty that he had succeeded with his invention, and that he had a plough that would do its work successfully and not be constantly in need of repairs. In that sense and from that standpoint what had been done before was experimental, and so not such a public use of the ploughs as would defeat the patent that was afterwards issued to the plaintiff.

With respect to the issue of infringement the case does not, I think, present any serious difficulty. The defendants would be more fortunate than most persons who deliberately appropriate the leading features of another's invention, if they should escape on that ground. It is said for them that they have not taken or copied all that the plaintiff claims in his specification. And that is true. But they have, I think, taken all that is essential to the making of ploughs that may be operated successfully according to the plan or principle that the plaintiff adopted. The specification does not perhaps disclose as clearly as it might what the leading features of the plaintiff's invention are, or distinguish as fully as might be desired between things that are essential and those that may or may not be thought to be convenient. But there is no plea or defence as to the insufficiency

of the specification, and taking it as a whole with the drawings attached thereto there is no real difficulty in ascertaining what the invention was.

There will be judgment for the plaintiff; the injunction asked for will be granted; and there will be a reference to the Registrar to enquire and report as to damages and such other relief as the plaintiff may be entitled to.

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Judgment accordingly.

Solicitors for plaintiff: *Hogg & Magee.*

Solicitors for defendants: *Chrysler & Bethune.*