1941

Between:

May 27 to 30 June 3 to 7

1944

Aug. 28

DANIEL WANDSCHEER, GERRIT WANDSCHEER, JACOB WAND-SCHEER, BEN WANDSCHEER, WALTER E. KLAUER, CHARLES L. OSTRANDER and KLAUER MANUFACTURING COMPANY..

PLAINTIFFS;

AND

SICARD LIMITÉE.....

DEFENDANT.

Patents—Invention—Subject matter—Utility—Inoperativeness — Anticipation—Novelty—Aggregation—Mere mechanical improvement not involving the exercise of inventive ingenuity.

The action is for the infringement of two patents owned by the plaintiffs relating to snow removing apparatus. The claim alleged to be infringed in the one patent consisted of a combination of elements which the Court found lacked utility as the plow made in conformity therewith would not operate. The claims in the second patent alleged to be infringed were directed to means in a rotary snow plow for loosening the snow in front of the rotors, which claims the Court found to be invalid because they were lacking in subject matter and novelty.

Held: That the combination of elements as set forth in the claim of the first patent constituted a mere juxtaposition of elements which were old and well known and did not require the exercise of inventive ingenuity; any skilled and competent mechanic could have made it. 2. That the use of cutter bars as described in the claims in the second patent alleged to have been infringed only required ordinary mechanical skill and it does not involve the exercise of inventive hardless were anticipated.

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\*\*That the use of cutter bars as described in the claims in the second 1944

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- 3. That the test of utility of an invention is that it should do what it is intended to do and that it be practically useful at the time when the patent is issued for the purposes indicated by the patentee.
- 4. That utility alone in the absence of invention cannot support a grant of a patent.

ACTION by the plaintiffs to have it declared that, as between the parties, two patents for invention owned by plaintiffs are valid and have been infringed by defendant.

The action was tried before the Honourable Mr. Justice Angers, at Montreal.

W. F. Chipman, K.C., Hazen Hansard, K.C. and E. G. Gowling for plaintiffs.

H. Gérin-Lajoie, K.C. and C. H. MacNaughton for defendant.

The facts and questions of law raised are stated in the reasons for judgment.

ANGERS J. now (August 28, 1944) delivered the following judgment:

This is an action for the infringement of five patents hereinafter described.

In chronological order these patents are:

- (a) Canadian letters patent No. 253,159 for improvements in snow removers granted on September 1, 1925, to Harry D. Curtis, of Oshkosh, State of Wisconsin, United States of America;
- (b) Canadian letters patent No. 352,708 for improvements in a snow plow granted on August 27, 1935, to Daniel Wandscheer, of Sioux Center, State of Iowa, United States of America, as a reissue of United States patent No. 288,040 granted on March 19, 1929, to the same;

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- (c) Canadian letters patent No. 309,848 for improvements in snow removing apparatus granted on March 31, 1931, to Dan Wandscheer, of Dubuque, State of Iowa, United States of America;
- (d) Canadian letters patent No. 309,849 for improvements in snow remover granted on March 31, 1931, to Dan Wandscheer, of Dubuque, State of Iowa, United States of America;
- (e) Canadian letters patent No. 330,827 for improvements in snow plow loading hood granted on March 14, 1933, to Walter E. Klauer and Charles L. Ostrander, of Dubuque, State of Iowa, United States of America.

A notice that plaintiffs discontinue their claim for infringement of letters patent number 330,827 dated March 13, 1941, was filed on April 22, 1941.

At the opening of the trial counsel for plaintiffs moved the Court to withdraw letters patent Nos. 309,849 and 352,708 and to discontinue their claim for the infringement thereof. He also moved the Court for an amendment of the date of invention regarding letters patent No. 309,848 from December to September 1927. The motion to withdraw letters patent Nos. 309,849 and 352,708 was granted with the costs of motion as well as those occasioned by the insertion of these letters patent in the action, including the costs of the evidence already adduced concerning them, against plaintiffs. The motion to amend was granted with costs against plaintiffs.

As a result of the notice of discontinuance regarding patent No. 330,827 and the motion to withdraw patents Nos. 309,849 and 352,708, the action, as it now stands, concerns only the alleged infringement of patents Nos. 253,159 and 309,848.

The patent No. 253,159 issued on September 1, 1925, to Harry D. Curtis and by him and Leo A. Schoebel, Simon C. Schaeffer and Charles M. Boller, on behalf of himself and Frank Morgan, deceased, assigned to the plaintiffs, Jacob Wandscheer, Ben Wandscheer, Daniel Wandscheer and Gerrit Wandscheer, relates to alleged new and useful

improvements in snow removers. A copy of this patent was filed as exhibit P10 and a copy of the assignment bear- WANDSCHEER ing No. 139,276, recorded on June 17, 1927, was filed as exhibit P11.

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The objects of the invention are set forth in the specification as follows:

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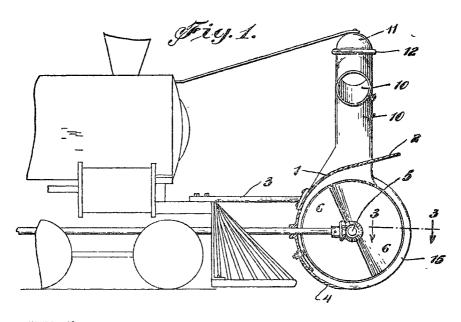
This invention relates to snow plows for steam and street railways, trucks and the like and the principal object of the invention is to provide spiral conveyor means for forcing the snow to one or both sides of the track or road.

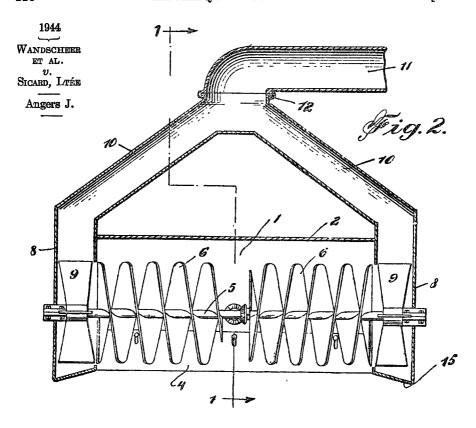
Another object of the invention is to provide blower means for receiving the snow from the conveyor means for blowing to a distant point.

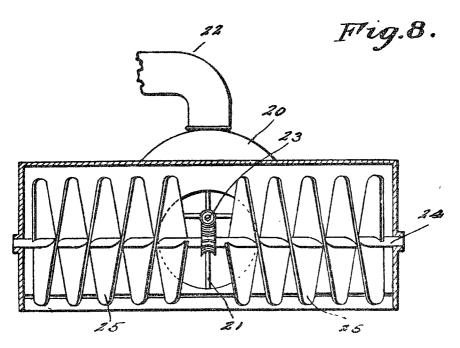
Figures 1, 2 and 8 of the drawings, reproduced below, will help in understanding the description of the invention.

The patentee describes his invention thus:

In these views 1 indicates a casing which has its lower portion of substantially semi-cylindrical form in cross section with its upper part inclining upwardly and outwardly as at 2. This casing is supported in any suitable manner in front of the engine or street car or other vehicle so that it will scoop up the snow from the track or road in front of the vehicle. As shown in Figure 1 the casing is attached to the engine by the arms 3. The lower edge of the casing is provided with an adjustable shoe 4 so that the shoe may be brought adjacent the surface to be cleared of snow. A shaft 5 is suitably journalled in the said casing and this shaft carries the right and left hand screwed conveyors 6 which extend







from a point adjacent the centre of the shaft to the ends of the casing. This shaft carries a gear wheel 7 which is connected in any suitable WANDSCHEER manner with the source of power so that the shaft may be rotated.

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It will thus be seen that the snow scooped up by the casing will be forced towards each end of the casing by the conveyor blades and if the ends of the casing are open the snow will be deposited on each side of the track or road.

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I prefer, however, to attach a casing 8 at each end of the casing 1 and to extend the ends of the shaft 5 through these casings. These extended ends of the shaft carry fan blades 9 so that a blast is created in each casing to drive the snow delivered to the casings by the conveyors through the outlet pipes 10 and the delivery pipe 11 which is connected with said pipes 10 by the rotary elbow 12. In this way the snow may be delivered at any desired point on either side of the road bed.

In the modification shown in Figures 4 and 5 the ends of the casing It may be left open so that the fan 9' will throw the snow from each end of the casing as the snow is delivered to them by the conveyors \* \* \* \*

In the modification shown in Figures 6 anad 7 the shaft 5' carries but one conveyor blade 6' which delivers the snow to one end of the casing. The gear 7' is located at one end of the shaft and a fan 9' may be connected with the other end so as to deliver the snow received from the conveyor to the outlet pipe 10' \* \* \*

## The specification further states:

It will thus be seen that as the plow is driven through the snow on the track or road the conveyor means will force the snow to each side of the track or road or to one side thereof and if the blower device is used this snow can be delivered to a distant point so as to remove the danger of the banked snow at the side of the track falling back upon the track.

In the modification shown in Figures 8 and 9 a double conveyor is used which is so arranged as to feed the snow to the centre of the casing. A fan casing 20 is connected with the rear of the conveyor casing at the centre thereof, and the fan 21 therein acts to draw the snow from the conveyor casing and then discharge it from the outlet 22 at the top of the fan casing. This fan has its shaft 23 geared to the shaft 24 on which the conveyors 25 are carried. The fan shaft is connected in any desired manner with a source of power.

## The plaintiffs rely on claim 1 which reads thus:

1. A snow plow of the class described comprising a horizontally arranged semi-cylindrical casing, a fan casing connected therewith, a conveyor in the first mentioned casing, a fan in the fan casing, means for actuating the conveyor and fan, an adjustable conduit connected with the fan casing for rotary movement.

The patent No. 309,848 granted to Dan Wandscheer on March 31, 1931, concerns an alleged new and useful improvement in snow removing apparatus. A copy of this patent was filed as exhibit P12.

The principle of the invention is laid down and its Wandscheel objects are stated in the following paragraphs of the specification, which are the only ones material herein:

Sicard, Little

This invention relates to snow removing apparatus and has particular reference to apparatus of this type which is especially designed for mounting upon the front end of a motor vehicle or similar propelling devices.

\* \* \* \* \*

A further defect in prior apparatus was that the banks of snow left on the sides of the road after the passage of the apparatus were irregular and, when the drift was deeper than the height of the apparatus, the banks were undercut so as to later develop snow slides and other movement of the snow which covered the previously cleared areas.

A further feature resides in the provision of a shearing element on the sides of the snow apparatus to insure a clean-cut bank by severing all overhanging edges and to cause the high layers of snow to fall into the

The specification then describes the feature of the apparatus with which we are concerned as follows:

path of the apparatus and be properly disposed of.

The front upright edges 73 of the auger casing are sharpened as in my aforesaid copending application to facilitate cutting and the provision of a clean side surface in the banks of snow as the remover cuts its swath. A cutting bar or blade 75, preferably one on each side of the auger casing, is mounted forwardly of the snow apparatus by means of bolts 77 which pass therethrough and into the side faces 13 of the casing. Each cutting bar may be sharpened as at 79 and is preferably arranged at such an angle with the casing that it slices into the upper layers of snow in advance of the time that the auger casing will cut into the corresponding lower layers. In this manner, immediately that the augers cut away the lower snow, the upper layers will tumble down and be swept back into the fan casing and thence out of spout 21. The bars 75 may be removed when the snow is not deep enough to warrant their use, and they may be adjusted to various heights by removing the bolts and replacing them in auxiliary holes 81. Should it be found desirable to change the inclination of the cutting bars, further sets of spaced holes 83 and 85, are provided, each of these sets being in alignment with the hole through which the uppermost bolt 77 passes. The sharp edges 79, like those indicated at 73, serve to leave a clean path and smooth bank behind the snow remover.

The plaintiffs rely on claims 6, 7, 8, 9 and 10; I think it will be sufficient to reproduce claims 7, 8, 9 and 10:

- 7. In a snow remover, a vehicle snow removing apparatus mounted upon said vehicle, and cutting bars formed at the sides of said apparatus for advancing into the snow to aid in cutting a clean swath.
- 8. In a snow remover, a vehicle, a casing mounted forwardly of the vehicle, rotors disposed within the casing, and means on the front lateral edges of the casing for loosening the snow ahead of the rotors.

9. In a snow remover, a vehicle, snow removing mechanism mounted forwardly thereof, and cutting bars or plates arranged at the sides of said mechanism in substantially vertical planes, said cutting bars extending WANDSCHEER upwardly for a substantial distance above the snow removing mechanism.

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10. In a snow remover, a vehicle, a casing mounted forwardly of the Sicard, Ltée vehicle, rotors disposed within the casing, and cutting plates arranged on opposite sides of the casing, said cutting plates projecting above and forwardly of the rotors.

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The plaintiffs in their statement of claim say:

the plaintiffs Daniel, Gerrit, Jacob and Ben Wandscheer are citizens of the United States of America, reside at Sioux Center, in the State of Iowa, and are the owners of the Canadian letters patent Nos. 253159, 352,708, 309848 and 309849 hereinabove described:

the plaintiffs Walter E. Klauer and Charles L. Ostrander are citizens of the United States of America, reside at Dubuque, in the State of Iowa, and are the owners of Canadian letters patent No. 330827 hereinabove described;

the plaintiff Klauer Manufacturing Company is a corporation having a place of business at Dubuque, in the State of Iowa, and is the exclusive licensee under the aforesaid patents owned by its co-plaintiffs;

the defendant is a corporation having a place of business in the City of Montreal. Province of Quebec:

the defendant has infringed the rights of the plaintiffs under the said letters patent as set forth in the particulars of breaches and threatens to continue the said infringement:

wherefore the plaintiffs claim (a) a declaration that as between the parties the said letters patent are valid and have been infringed by the defendant; (b) an injunction restraining the defendant from further infringing the rights conferred by the said letters patent; (c) damages in the amount of \$10,000 or such larger amount as may be awarded or alternatively an account of profits as plaintiffs may elect; (d) an order directing that the defendant deliver to plaintiffs all articles in its possession or power made in infringement of the said letters patent or that said articles be destroyed; (e) such further relief as the justice of the case requires; (f) costs.

In their particulars of breaches the plaintiffs say that the defendant has infringed the rights of the plaintiffs under the said letters patent since the dates of their issue 1944 and prior to the institution of the action by manufactur-Wandscheef ing and selling snow plows in Canada at times and places at present unknown to the plaintiffs, which said snow Sicard, Little plows embodied the inventions covered by said letters Angers J. patent;

the plaintiffs rely on the following claims (leaving aside the patents withdrawn): patent No. 253,159, claim 1; patent No. 309,848, claims 6, 7, 8, 9 and 10;

the precise numbers and dates of defendant's acts of infringement are unknown to plaintiffs but they claim damages in respect of all such infringements.

In its statement of defence the defendant says as follows:

it is ignorant of the allegations of the statement of claim concerning the status of plaintiffs but admits the one regarding its own status;

it denies infringement and the particulars of breaches thereto relating;

the letters patent in suit have always been invalid, irregular and null for the reasons set forth in the particulars of objections.

The particulars of objections amended according to a judgment rendered on May 16, 1941, leaving aside the matter relating to letters patent Nos. 352,708, 309,849, 330,827 withdrawn by plaintiffs, say in substance:

letters patent Nos. 253,159 and 309,848 are invalid, irregular and null for the following reasons:

the subject-matter of these patents is not proper subject-matter of letters patent for invention, because:

- (a) it is not and was not any new art, process, machine, manufacture or composition of matter, new and useful, nor any new and useful improvement thereto relating;
- (b) it is and was the readaptation of means and articles already known, for analogous purposes and without any novelty in the mode of adaptation nor in the result;
- (c) it is and was the substitution of equivalents already known to elements already manufactured of the same character;

(d) it is and was only the reunion or juxtaposition of 1944 separate elements without modifying their functions Wandscheer and without producing any other result than the without producing any other result than the without results of the separate operations of the Sicard, Little divers elements;

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the alleged inventions are not the result of the exercise of the inventive faculty, but would be at most the product of mechanical skill:

there was no invention nor subject-matter for a patent for invention having regard to the common knowledge in the art and to the patents, publications and prior knowledge hereinafter referred to:

the alleged inventions were not new; they were known and had been used by others before being made by the applicants for the said patents, as appears from: (a) the common knowledge in the art at the time; (b) the prior knowledge established by the patents hereinafter mentioned and the applications for the same;

the alleged invention which is the object of letters patent No. 309,848, even if there were subject-matter for an invention, which the defendant denies, would not be the invention of the plaintiff Daniel Wandscheer alone, but the joint invention of the plaintiffs Gerrit, Jacob, Ben and Daniel Wandscheer;

the alleged invention forming the object of letters patent No. 253,159 was already known to the persons to whom the letters patent hereinafter mentioned were granted and the alleged invention was anticipated, disclosed and described in the following letters patent and the application therefor:

### United States patents

| Tierney   | March 16, 1869    | No. | 87,989    |
|-----------|-------------------|-----|-----------|
| Webber    | April 3, 1883     | No. | 275,301   |
| Truesdell | July 2, 1889      | No. | 406,117   |
| Bakkethun | November 19, 1889 | No. | 415,317   |
| Herran    | January 17, 1899  | No. | 617,830   |
| Cutting   | January 12, 1904  | No. | 749,172   |
| Lund      | August 2, 1921    | No. | 1,386,066 |
| Yeiter    | September 6, 1921 | No. | 1.389.727 |

the alleged invention forming the object of letters patent No. 309,848 was already known to the persons to whom the following letters patent were granted and the alleged Wandscheef invention was anticipated, disclosed and described in the following letters patent and the applications therefor:

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#### United States patents

| Angers | J. |
|--------|----|
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| Elliot      | November 1, 1870        | o. 108,894          |
|-------------|-------------------------|---------------------|
|             | April 3, 1883N          |                     |
| Bergenthal  | March 13, 1888No        | o. 379,441          |
| Bakkethun   | November 19, 1889No     | o. 415,317          |
| Scheffler   | February 18, 1890Ne     | o. 421,7 <b>6</b> 8 |
| Derby       | October 1, 1901No       | 683,682             |
| Fittenhouse | February 14, 1922       | . 1,406,897         |
| Curtis      | April 18, 1922No        | . 1,413,007         |
| Miller      | November 17, 1925No     | o. 1,562,180        |
| Milne & al  | November 24, 1925No     | 0. 1,562,842        |
|             | June 1, 1926No          |                     |
| Curtis      | April 5, 1927           | . 1,623,910         |
| Von Lackum  | November 19, 1867No     | o. 71,249           |
| Dunbar      | October 18, 1870No      | . 108,338           |
| Ballock     | September 30, 1879 $Nc$ | 220,141             |
| Caldwell    | December 11, 1888 $N_0$ | 394,244             |
| •           | June 9, 1891No          |                     |
| Kobb        | June 14, 1892No         | 476,800             |
| _           | July 2, 1907No          |                     |
|             | January 18, 1910No      |                     |
|             | January 1, 1918         |                     |
|             | January 24, 1924No      |                     |
|             | August 26, 1924No       |                     |
|             | April 28, 1925No        |                     |
| Brown I     | February 23, 1926No     | . 1,574,230         |

the alleged invention forming the object of letters patent No. 309,848 was already known to the said Arthur Sicard since the year 1924 and to Sicard Limitée since the year 1929 and had been used by them since said dates;

the alleged invention forming the object of letters patent No. 309,848 was already known to the persons, firms and corporations hereinafter mentioned and had been used by them as follows:

- (a) The Rotary Snow Plow Co., of Minneapolis, State of Minnesota, United States of America, during the years 1926 and 1927 and since;
- (b) Imperial Machine Company, of Minneapolis aforesaid, during the years 1926 and 1927 and since;
- (c) Zygmund L. Phillip, of Minneapolis aforesaid, during the years 1926 and 1927 and since;
- (d) Percy Ferguson, of Minneapolis aforesaid, during the year 1927 and since;

the claims of the letters patent Nos. 253,159 and 309,848

over more than any invention made by the applicants for Wandscheer said letters patent;

v.

the specifications and claims of said letters patent do Sicard, Lyss not indicate clearly the improvements and are not limited Angers J. to the improvements on which the applicants for said letters patent pretend to found their invention;

the alleged inventions are not useful;

the alleged inventions, particularly as described in the specifications contained in the said letters patent and the drawings relating thereto, are inoperative;

the specifications of the said letters patent contain more than is necessary for obtaining the end for which they were made and this addition was wilfully made for the purpose of misleading;

the specifications of said letters patent contain less than is required for obtaining the end for which they were made and this omission was wilfully made for the purpose of misleading.

It seems to me apposite to first consider the question of the validity of the letters patent, commencing with No. 253,159 relative to improvements in snow removers and later dealing with No. 309,848 concerning improvements in snow removing apparatus.

A common ground of defence raised by defendant against both patents, as previously noted, is the lack of subject-matter and the want of novelty in view of the state of the prior art. It was also urged on behalf of defendant that patent No. 253,159 was invalid because useless, the machine therein described being inoperative.

Counsel for plaintiff submitted that this patent is a combination of six elements forming one unit, the six elements being a semi-cylindrical or substantially semi-cylindrical casing, a conveyor in that casing, a fan casing connected therewith, a fan in the fan casing, means for actuating the conveyor and the fan and an adjustable conduit or chimney connected with the fan for rotary movement in order to discharge the snow in the direction desired. The question arising is: has there been in this combination of old contrivances any invention?

1944 A miniature model of the machine was filed as exhibit Wandscheer P13. Counsel for defendant submitted that this model ET AL. differs from the snow remover covered by the patent SICARD, LTEE while counsel for plaintiffs claimed that it is an exact representation of the patented machine; I shall deal with Angers J. this question briefly later.

> It is idle to say that utility is an essential quality of an invention. The test of utility of an invention is that it should do what it is intended to do and that it he "practically useful", at the time when the patent is issued, for the purposes indicated by the patentee. Reference may be had in this respect to the following decisions: Lane-Fox v. Kensington and Knightsbridge Electric Lighting Co. Ltd. (1); Atking & Applegarth v. The Castner Kellner Alkali Co. Ltd. (2); Re Alsop's Patent (3); Hatmaker v. Joseph Nathan & Co. Ltd. (4); Ward Bros. v. James Hill & Son (5). It has been held many a time that utility is part of the consideration for a grant of letters patent and that, if a material portion of the invention be useless, there is a failure of consideration and the patent is void: Simpson v. Holliday (6); Turner v. Winter (7): Morgan v. Seaward (8): United Horseshoe and Nail Co. v. Stewart & Co. (9): United Horseshoe and Nail Co. v. Swedish Horsenail Co. (10). I may note that a slight amount of utility will suffice to support a patent: Morgan v. Seaward (11); Otto v. Linford (12); Badische Anilin und Soda Fabrik v. Levinstein (13).

> On the other hand, utility alone, however great it may be, cannot in the absence of invention support a grant of letters patent: Morgan & Co. v. Windover & Co. (14).

> Counsel observed that, in stating that the snow remover described in patent No. 253,159 was inoperative, he considered the form of the alleged invention with the use of the fan and of the conduit or chimney for the delivery of the snow to a distant point in any direction. He did not

- (1) (1892) 3 Ch. 424 at 431.
- (2) (1901) 18 R.P.C. 281 at 295.
- (3) (1907) 24 R.P.C. 733 at 752.
- (4) (1919) 36 R.P.C. 231 at 237.
- (5) (1903) 20 R.P.C. 189 at 199.
- (6) (1866) L.R., 1 H.L. 315 at 322.
- (7) (1787) 1 W.P.C. 77 at 82.

- (8) (1837) 2 M. & W. 544 at 561,
- (9) (1885) 2 R.P.C. 122 at 132.
- (10) (1888) 6 R.P.C. 1 at 8.
- (11) (1835) 1 W.P.C. 167 at 186.
- (12) (1882) 46 L.T., n.s., 35 at 41.
- (13) (1887) 4 R.P.C. 449 at 462.
- (14) (1890) 7 R.P.C. 131 at 136.

refer to the simpler form of machine whose object is merely 1944 to provide conveyor means for forcing the snow to one or Wandschreer both sides of the road.

This object, which Curtis in his patent designates as Sicard, Little the principal, is not a novelty. It is disclosed in the fol-Angers J. lowing prior patents:—

(a) United States patent No. 87,989, issued on March 16, 1869, to Charles W. Tierney for a snow plow.

## The specification says:

The object of this invention is to introduce into use a more complete and successful machine for removing snow from the tracks of railroads than has heretofore been in use; and it consists in the use of a revolving shaft having spiral wings, in the form of a screw, thereon, in combination with a revolving fan which distributes the snow after the screw has raised it.

This patent shows that the use of a spiral for removing snow was well known. A detail which is somewhat significant is the statement contained in the last paragraph of the specification, reading as follows:

I am aware that screws have been used for the purpose of elevating the snow from the track of a railroad. A screw alone I do not claim;

As shown by the drawing annexed to the specification the snow plow invented by Tierney consisted of a spiral placed horizontally, fitted, at one end, with a revolving fan.

(b) United States patent No. 617,830, issued on January 17, 1899, to Heinrich Herran, for a snow plow, pursuant to an application filed on July 16, 1898.

The specification forming part of patent No. 617,830 states (inter alia):

The present invention relates to that class of vehicles designed to clear the snow from streets, roads, avenues, and the like; and the special object thereof is to provide a snow-plow of very simple but substantial construction and which, with a moderate amount of motive power, readily throws the snow to each side of the road.

The wedge-shaped sledges or snow-plows heretofore employed require a great expanse of motive power for their operation, resulting from the accumulation of the snow at the fore part of the plow, where it is compressed to such an extent that the plow can only advance with the greatest difficulty. This inconvenience is removed with the snow-plow forming the object of the present invention by driving the snow to the two sides of the road by means of two screws or conveyers acting in opposite directions on a common rotating shaft, as more fully and clearly pointed out and claimed hereinafter.

In Herran's patent are found the spirals used for the Wandscheer purpose of removing the snow to one or both sides of the road as provided for in the first and "principal" object Sicard, Little of Curtis' patent. In his first alternative or object Curtis Angers J. has not added anything to the patents of Tierney and Herran.

(c) United States patent No. 749,172, issued on January 12, 1904, to Otis Cutting, for a reversible rotary snow plow, according to an application filed on August 4, 1903.

The use of a spiral or rotary screw to remove the snow from railway and street car tracks and consequentially roads is shown in this patent.

Figure 2 of the drawings accompanying the specification shows distinctly the spiral in front of the machine, whilst figure 1 gives a side view thereof. With the Cutting machine the snow was thrown to one side of the road.

I may add that in the three patents above cited we find a substantially semi-cylindrical casing within which is the spiral conveyor. This feature can be seen by looking at figure 1 of the Tierney patent, figure 2 of the Herran patent and figure 1 of the Cutting patent.

(d) United States patent No. 1,389,727, issued on September 6, 1921, to Clarence W. Yeiter for a snow plow, following an application filed on March 29, 1920.

This patent also shows the use of a spiral conveyor; it is particularly visible in figure 1 of the drawings.

Copies of these four patents form part of exhibit D44.

I think it is fair and reasonable to conclude from these facts that the first object of the Curtis patent (exhibit P10) offers no novelty, but was anticipated by the patents abovementioned. In this respect the said patent is irregular, invalid and null.

As to the second object of the patent, which is to provide, in a snow remover, not only a spiral conveyor in a semi-cylindrical casing but also a fan in a fan casing and an adjustable conduit connected with the fan casing for blowing the snow at a distance, the defendant's contention is that the machine represented by Curtis in his patent No. 253,159 (exhibit P10), is inoperative and useless and that the patent is consequently invalid.

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The inventor describes the second object of his patent 1944 in the tenth paragraph of the specification, which reads WANDSCHEER ET AL. thus:

I prefer, however, to attach a casing 8 at each end of the casing 1 SICARD, LTÉE and to extend the ends of the shaft 5 through these casings. These extended ends of the shaft carry fan blades 9 so that a blast is created in each casing to drive the snow delivered to the casings by the conveyors through the outlet pipes 10 and the delivery pipe 11 which is connected with said pipes 10 by the rotary elbow 12. In this way the snow may be delivered at any desired point on either side of the road bed.

I shall endeavour to recapitulate as briefly as possible the evidence referring to this aspect of the case.

I believe it convenient to refer in the first place to the deposition of Curtis himself, who apparently has no interest in the present case. His deposition was taken by consent of counsel at Minneapolis, State of Minnesota, U.S.A., and a transcript thereof was filed in the record.

His first experiments with snow plows date back to the winter of 1919-1920. He said that he took an auger and placed it under a tractor. His machine consisted of a shaft with augers, one right and one left, and a belt from the tractor pulley running down to one end of the auger to rotate it.

One Leo A. Schoebel helped him in his experiments.

Curtis said that he and Schoebel put on a couple of temporary fans to see "how the snow would go past from the auger" and "what the fan would do when it got in contact with the snow". These fans were connected with the auger on one side.

The witness stated that there was a semi-cylindrical casing in the rear of the auger and that there was only one row of spiral conveyors placed horizontally.

The purpose of this work with this type of auger, according to witness, was to get an idea of how it would cut the snow and deliver it. His experience was that the auger seemed to cut the snow and deliver it in nice shape. He had no picture of the type of machine used during that winter; he volunteered the information that he had no "interest in that".

Asked if he had pursued his experiments further during that same winter, Curtis replied: "that was as far as we went that winter".

- In answer to the question if he had come to any con-Wandscheer clusion as to the type of rotary snow plow that was going ET AL. to be practical, Curtis summed up his opinion as follows Sicard, Litée (p. 6):
  - A. Well, from that experiment we figured that the auger was all right Angers J. for delivery, but we found out that we had side draft. We would cut on one side, and so we decided that it would be better if we would reverse the augers, and put the fan in the rear, and make the delivery through a hole in the casing.
    - Q. Will you explain a little more what you mean by the draft that you had?—A. Well, when we had this one auger we had, from pulling on one auger, we noticed a considerable side draft. It was pulling against the bank, and would pull on the auger. There was nothing on the other side to counter-balance it.
    - Q. And as a result of that it would prevent the snow plow from travelling in a straight line?—A. It would, unless it was heavy enough to hold it down. We figured that there would be considerable trouble, so I tried to remedy that.

I do not think that the experiments carried on in the winter of 1919-1920 have any bearing in the present case and that it would be useful to spend any more time on this phase of Curtis' activities. I thought however that it might be interesting to outline briefly the first steps of Curtis in the field of snow removers.

The evidence discloses that, almost immediately after the winter of 1919-1920, without having had the opportunity of testing the mechanism therein described. Curtis applied in the United States for patent No. 1,413,007 for a snow remover. A copy of the patent was filed as exhibit D13; the application appears to have been filed on May 25, 1920, and the patent issued on April 18, 1922. I may note that this patent is identical to the Canadian patent in suit, No. 253,159, filed as exhibit P10, with the exception that in the fourth line of the first claim of the former we find the expression "a spiral conveyor in the first mentioned casing", whilst in the latter we have the expression "a conveyor in the first mentioned casing" and that the said claim of the Canadian patent ends with the words "for rotary movement" whilst these words are not included in the same claim of the United States patent. These differences have no importance whatever in the present case. I may add that claim 2 of the United States patent differs from claims 2 and 3 of the Canadian patent, but with these claims we are not concerned.

It is interesting to note that Curtis applied for a patent 1944 in the United States and some time later in Canada for Wandscheer an invention which he had never tested, at least as far v. as the use of a fan and fan casing and of outlet pipes and Sicard, Litér a delivery pipe for the projection of the snow at a distance Angers J. in any direction is concerned.

It seems proper to quote in this respect a few passages from Curtis' testimony, which will, I think, substantiate the foregoing remarks.

Firstly we find at page 8 of the deposition the following statements regarding the fans and the gear used for driving the auger shaft; it is expedient to note that figure 2 of the United States patent (exhibit D13) is similar to figure 2 of the Canadian patent (No. 253,159) in suit:

- Q. I notice that this figure shows two fans at the outer ends of the auger. I believe you mentioned to us that you had tried it out with only one?—A. Yes, I tried it out with only one.
- Q. So you had not experimented with two fans as shown in figure 2?

  —A. No, we did not.
- Q. I notice in figure 2 that the auger shaft seems to be driven by a gear in the centre of the shaft. Is that the way the shaft was operated in the experiments you carried out?—A. No, we had a pulley out on the opposite end where this other fan shows.
- Q. So you had not experimented with a gear in the centre as shown in figure 2?—A. No, we did not.
- Q. The remarks you have just made as to figure 2 would apply, I presume, also to figure 4?—A. What was that question?
- Q. Whether the remarks you had made with respect to the auger shown in figure 2 would also apply to figure 4?—A. Yes, it would.

Later on dealing with the auger shown in figure 8 of the United States patent as well as of the Canadian patent and with the chimney appearing in figures 2, 6 and 8 of both patents, Curtis made the following declarations (p. 9):

- Q. Will you refer to figure 8 of the same drawing and look at the form of auger shown in that figure? I notice that there is a blower casing in the centre into which the snow is supposed to be driven.—A. Yes.
- Q. Had you experimented with that type of an auger?—A. Not yet. This was not yet.
- Q. Do I understand rightly therefore, that the disclosure, the teachings of that patent with respect to the shape of the auger was the result of deductions that you made from the work that you had carried on in the winter of 1919-1920?—A. Yes, that is correct.
- Q. Will you look at the chimneys or conduits which appear in figures 2, 6 and 8 of this same patent and state if, during that winter of 1919-1920, you had experimented on any such chimneys?—A. No, we had not.
- Q. Had you experimented with any sort of chimneys?—A. Not that winter.

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Q. So I gather that the teachings of this patent in connection with the chimney was merely from your general knowledge as to what you thought might work properly?—A. Yes, that was the idea.

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Curtis stated that he experimented further with snow plows in the winter of 1920-1921, using the type of machine represented in figure 8. He said that the snow plow used in the winter of 1920-1921 had a chimney or conduit but that it was not similar to that shown in figure 8. I had better quote an extract from the witness' deposition in this regard (p. 11):

- Q. Perhaps you might tell us what sort of conduit you were working with.—A. We just had a plain, square, three-sided conduit, open at the bottom.
- Q. Could it be described as an inverted U?—A. Well, hardly. It was more, I would say, a square shape.
  - Q. But with only three sides?-A. Yes, with only three sides.

Curtis said that he had a photograph of the snow plow in question, which was marked by the reporter for identification as exhibit D3. The same photograph was filed at the trial as exhibit D14. Counsel for plaintiff admitted that exhibit D3 is a photograph of a Curtis machine without having the photographer called to identify it.

The photograph shows a machine with a single auger having right and left hand screw parts, bringing the snow into the centre towards the blower casing opening at the rear of the auger.

Curtis stated that the auger shaft was driven by a worm gear, instead of a bevel pinion as indicated by numeral 5 in figure 1. The worm gear he used in the auger with which he experimented is the one designated by numeral 24 in figure 9.

According to Curtis, the conduit or chimney on the snow plow shown in the photograph exhibit D14 was not adjustable and it could only deliver the snow on one side.

On pages 15 and 16 of the deposition reference is made to the experiments made by Curtis during the winter of 1921-1922 with chimneys such as shown in figures 2, 6 and 8. I deem it convenient to quote an excerpt from the deposition (p. 15):

Q. In the course of that year, or of that winter 1920-1921, did you operate with chimneys or conduits forming an elbow such as shown in figures 2, 6 and 8 of the drawing of said patent?—A. No, we did not.

Q. Did you subsequently have occasion to experiment with such chimneys?—A. Yes, later on, the next winter.

Q. What result did you get?—A. Well, we did not think that it was very successful, that type of—we used a 45, but we did not like the operation of it.

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Q. What do you mean by using a 45?—A. Well, instead of a U, it was halfway between a square and straight.

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- Q. You mean a 45-degree elbow?—A. Yes, a 45-degree elbow.
- Q. So it was not nearly so pronounced as the elbow in figure 6 for instance, which shows a 90-degree elbow, does it not?—A. It was just halfway between that and straight. Straight would be up, and this is, you might say, square, or a U, and the other is halfway between.
- Q. Now, did you experiment with a 90-degree angle or elbow such as shown in figure 6?—A. No, we did not.
- Q. You experimented with a 45-degree?—A. We experimented with a 45-degree.
  - Q. With what result?—A. Well, it did not prove to be satisfactory.
- Q. Why did it not?—A. Well, it seemed to choke the motor down too much.

Questioned as to the result he got with the auger shown in the photograph exhibit 14, Curtis gave this information (p. 16):

- A. Well, I found out that the auger was not quite large enough, and we put it on a truck, and I found out that the plow did not jibe with the power of the truck; that we went too fast ahead, and when we wanted to go ahead, if the snow was deep we did not have speed enough for the plow. I made up my mind that we had to put in a separate engine and run it independent of the truck.
- Q. Did you experiment with that particular auger in deep snow?—A. Yes, I found out that one auger would not be enough unless it was a big one.
- Q. What was the size of that auger?—A. 16 inches. It was the same auger that we had the winter before, only that we reversed them.
- Q. Did you build a two-auger snow plow that winter?—A. Not that winter.

Reverting to his experiments in the winter of 1921-1922 at the request of counsel, Curtis made the following statements (p. 17):

- A. Well, the next winter I built an altogether different type of a plow with two augers, one above the other.
  - Q. Both on a horizontal axis?—A. Both on a horizontal axis.

# And further on (p. 17):

- Q. What type of augers were those that you built in that winter, that you used in the winter of 1921-1922?—A. I used a 20-inch diameter.
  - Q. Each?—A. Each—a right and a left.
- Q. Each of the two rows?—A. Each of the two rows was the same diameter.
- Q. And then did each auger have a right and a left-hand part?—A. Yes, each auger had a right and a left-hand part.
  - Q. And where were they carrying the snow?—A. To the centre.
- Q. And was there a blower casing with a fan in it, to the rear of the augers?—A. Yes, there was.

The model of snow remover which Curtis made in the Wandscheer winter of 1921-1922 is the one represented in the photograph exhibit D15, as well as in the photograph exhibit Sicard, Ltée D19, of which the former is an enlargement. Curtis in the Angers J. winter of 1921-1922 solved the problem which confronted him. He had not solved it however when on May 25, 1920, he filed his application in the United States, which resulted in the patent No. 1,413,007 (exhibit D13). As already said, this patent is similar to the Canadian patent No. 253,159 with which we are concerned.

The snow plow shown in the photograph exhibit D15 is very similar to the model exhibit P13. Both have two horizontally superposed spiral conveyors, baffle plates, a conveyor casing having at the back a straight wall with a semi-cylindrical scraper at its base, a fan casing at the rear of the conveyor casing and a fan in the said fan casing to draw the snow from the conveyor casing and a four-sided conduit which can be fixed so as to discharge the snow to the right or left of the machine as desired. This machine differs materially from the one described in patent exhibit P10,: see deposition Choquette pp. 290 and 386.

In the winter of 1921-1922 Curtis, who had always thought of a system capable of delivering the snow to the right or to the left, imagined an opening that would revolve around the casing. The opening for the snow could be adjusted to appear on one side or the other. Curtis explained the construction and working of this outfit by means of a drawing which he prepared and which was filed as exhibit D27 (D15 with the examination on discovery).

It appears to me convenient to quote an extract from his testimony which will enlighten the subject (pp. 31 and 32):

- Q. Will you state, what does this crude drawing represent that you are now exhibiting?—A. That represents the arrangement I had, to do the experimenting.
- Q. What does the red colour represent?—A. That represents the outer circle of the casing, between the two outside walls.
- Q. And what does the blue represent?—A. That represents the revolving part of the arrangement, that the hood is fastened to.
- Q. So that that part shown in blue is the part that revolves?—A. That is the part that revolves.
- Q. Enabling the hole to be presented either on the righthand side or the lefthand side?—A. That is the idea.

- Q. With this arrangement illustrated by Exhibit D-15, I gather that you could throw the snow either on the lefthand side or the righthand WANDSCHEER side?—A. That is correct.
- Q. Could you rotate this device so as to send the snow in either Sicard, Ltée direction around the circle?-A. No, it could not be done.

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Curtis asserted that the chimney shown in figure 2 of the Canadian patent No. 253,159 (exhibit P10) was intended to throw the snow in any direction, all around the snow plow, and he willingly admitted that that result could not be achieved with the arrangement represented in the drawing exhibit D27 (D15 with the examination on discovery). On page 32 of his deposition, Curtis makes the following observations:

- Q. With the arrangement shown in Figure 2 of that patent (No. 253,159), was it intended to direct the snow in any direction, north, south, east, west, or any direction at all?-A. Yes, it was.
  - Q. All around the snow plow?—A. Yes, it was.
- Q. Can that result be achieved with the arrangement illustrated in Exhibit D-15?—A. Well, no, it cannot.

It is obvious that we do not find in the drawing exhibit D27 and in the model exhibit P13 the rotary movement of the chimney provided for in the patent No. 253,159.

The inventor himself has to make this admission. There is nothing surprising in that fact, seeing that Curtis had not tested his machine before filing his application for the patent. He tried it later and realized that it did not work properly.

Counsel for plaintiffs insisted vigourously on the commercial success of the "Snogo" snow remover manufactured by the plaintiff Klauer Manufacturing Company. The evidence indeed shows that the plaintiff company obtained a wide market for its snow plows, but its success is not attributable to the machine described in the Canadian patent exhibit P10 or in the United States patent exhibit D13. It is mainly, if not solely, imputable to the snow plow altered and perfected during the winter of 1921-1922, to wit the one illustrated by the photograph exhibit D15 and represented by the miniature model exhibit P13.

Curtis soon grasped the situation and understod that his first model (exhibit P10) was not practical and that it did not work satisfactorily. It was not long before he changed his contrivance and applied for another patent

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in the United States. The patent issued on April 5, Wandscheer 1927, bears No. 1,623,910; a copy was filed as exhibit D26. The application appears to have been filed on May Sicard, Ltie 19, 1922. As submitted by counsel for defendant, the date of the filing of the application corresponds with the termination of Curtis' experiments in the winter of 1921-At the end of the winter Curtis was satisfied that he had solved the problem on which he had been working for three successive winters and he applied for his second patent in the United States: he did not however deem it advisable to obtain one in Canada.

> The United States patent No. 1,623,910 (exhibit D26) discloses the use of two spiral conveyors horizontally superposed, both consisting of right and left hand screw parts so that the snow is moved inwardly from both ends of the conveyor casing in order to enter the fan casing located at the rear of the spiral conveyors. In the fan conveyor is a fan whose object is to create a blast which will drive the snow to the delivery pipe or chimney represented in figure 5. This chimney was evidently found inoperative for the same reason as the one shown in figures 2, 6 and 8 of the United States patent No. 1,413,007 (exhibit D13), and of the Canadian patent No. 253,159 (exhibit P10), as it was discarded and replaced by a totally different contraption as appears from the photograph exhibit D15 and the miniature model exhibit P13.

> The evidence of Curtis that the snow remover comprising a spiral conveyor in a semi-cylindrical casing, a fan in a fan casing and an adjustable chimney or conduit connected with the fan casing for blowing the snow at a distance, forming one of the objects of the patent exhibit P10, in connection with which we are now concerned, was found inoperative and consequently useless, is corroborated by the testimonies of Arthur Sicard and Arthur Elie Choquette.

> Arthur Sicard, heretofore carrying on business alone as manufacturer of snow removers under his own name and presently president of Sicard Limitée, the defendant. which took over the business of Arthur Sicard at the time of its incorporation in September, 1929, and has since carried it on, testified that he became interested in the prob

lem of snow removers and began to devote his attention 1944 to the manufacture of miniature models in 1922. They Wandscheer were small wooden models of a snow removing apparative tus of the type commonly known as scraper. He experi-Sicard, Little mented with them to see how they would operate in the Angers J. snow. Sicard made his first regular size snow remover of this kind during the winter 1923-1924.

He explained the modifications made to his machine during the spring of 1924 and stated that he produced the snow remover shown on page 4 of exhibit P7 without, however, the chimney appearing. He began to install the chimney in the spring of 1924.

Sicard relates at some length his endeavours during the winter of 1924-1925, 1925-1926 and 1926-1927 to improve his snow remover. The improvements made by Sicard to his machine of the scraper type have no relevance to the question now under examination.

In June, 1927, Sicard made a small sheet-iron model of spiral conveyors snow remover, with a chain on one side connecting the conveyors and a turbine with wooden blades driven by hand at the outset. He does not remember whether he had baffle plates on the model, but thinks that they were added after the first trials.

I may note incidentally that counsel for plaintiff, with some insistence, expressed wonder at the fact that the defendant was unable to produce the models used by Sicard in 1923 and 1927. One must not overlook the fact that the plaintiff company knew about the Sicard machine since 1930, according to Ostrander's own statement (dep. on discovery, 21), and that the action was not instituted before August 1939. Seeing the long interval which elapsed between the time these models were made and the date on which the action was instituted, the defendant had no reason to surmise that these models might some day be wanted.

Sicard began to build a regular size snow remover with spirals in 1928 and sold the first machine of this type to the city of Outremont in 1929.

Reverting to the lack of operativeness and utility of a snow remover made in conformity with patent exhibit P10, after this digression which I deemed useful, I will v. Sicard, Little snow plough and loading machine' (exhibit P28), counsel Angers J. for defendant asked Sicard if he had tried a chimney like the one shown in figure 1; the witness replied in the negative. I will quote the questions and answers relating to the subject (pp. 203 and 204):

- D. Dois-je comprendre que vous n'avez pas essayé une cheminée construite, tel qu'indiqué sur la figure numéro 1 du brevet?—R. Jamais,
- D. D'après votre expérience et vos connaissances actuelles, est-ce qu'une cheminée de cette nature peut fonctionner?—R. Ne peut pas marcher du tout.
- D. Vous l'avez peut-être expliqué, mais mon savant ami me demande que je vous demande pourquoi cela ne fonctionne pas. Dites-le donc?—R. C'est que quand on a fait des essais, et qu'on mettait des coudes coupés carrés, c'est-à-dire 90 degrés. cela n'a jamais marché.

A comparison of the chimney represented in figures 2, 6 and 8 of patent No. 253,159 and the one shown in figure 1 of patent No. 249,041 discloses that both chimneys are identical.

Arthur Choquette, who described himself as technical engineer, testified that he studied at Laval University in Montreal from 1898 or 1899 to 1906, that he was associated with the firm of Louis & Purvey, of New York, from 1910 to 1920, acting particularly as consulting engineer and supervisor in the preparation of patents and plans relating thereto, and that he was employed by the United States Government at Washington as engineer and designer in ballistics in 1917 and 1918, during the first world war.

According to him, his experience in patents for invention and in plans as technical engineer and designer dates back to 1910.

Choquette stated that he came back to Canada in 1920 and was associated with one René Pigeon, as patent solicitor, during a few months. He then became affiliated with the Institut du Radium of the University of Montreal, with which he is presently connected. Asked what his functions at the Institut du Radium are, he replied (p. 280):

R. Comme ingénieur expert dans l'installation de machines de Rayons-X, l'analyse et la préparation de radium pour les traitements de cancer ainsi que de la préparation des dessins illustratifs en biologie, en histologie pour les conférences et les congrès de médecins. Referring to his experience in the manufacture of snow removing machines, Choquette said he began with the Wandscheef firm of Pigeon & Lymburner. Perhaps I had better quote on extract from his deposition (p. 280):

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J'ai commencé là-dedans quand j'étais justement avec M. Pigeon de la firme Pigeon & Lymburner, autrefois. Alors que justement M. Sicard est venu pour la première fois pour l'application d'un brevet. J'ai travaillé au premier brevet de concert avec M. Pigeon et de là M. Sicard, naturellement, n'étant pas resté longtemps chez M. Pigeon, M. Sicard m'a demandé si je lui fournirais des détails dans la construction de la machine. Et dès alors, j'ai étudié la chose avec M. Sicard et depuis ce temps-là, je me suis occupé des machines à neige.

D. Par conséquent, depuis 1922?—R. Depuis 1922, environ 1922 ou 1923.

Choquette acknowledged his signature as witness opposite that of Arthur Sicard in the patent No. 263,349 granted to the latter on August 10, 1926, for improvements in snow removing machines, filed as exhibit P29.

He declared that he made a careful study of the patents forming the basis of the present action and of the prior art in connection with snow removing machines and the patents in suit.

He explained the working of various elements shown in figure 2 of patent No. 253,159 (exhibit P10, particularly the fan blades, the outlet pipes and the delivery pipe connected with the former by a rotary elbow.

Witness' attention was then drawn by counsel to the want of operativeness and utility of the snow remover described in said patent. As this question is eminently important, I deem it expedient to cite a passage of the testimony (p. 283):

D. Maintenant, ce que je désire savoir de vous, comme expert, quelle est votre opinion relativement à l'opération d'un appareil dessiné et construit de cette manière? Je désire savoir si cette construction, d'après vous, est opérante ou non, et pourquoi?—R. Ce conduit, cette cheminée ou conduit de 10, référence des chiffres 10-12-11, ne peut fonctionner pour la neige. La neige est un corps fondant par pression ou friction, et ne peut être lancée qu'en une certaine ligne parabolique dont la trajectoire est comme une balle, elle ne peut suivre un conduit angulaire ou coudé.

D. Ce que vous entendez par un conduit angulaire ou coudé, est-ce une construction de la nature de la construction de la cheminée qui apparaît à la figure 2, spécialement à la jonction à gauche du chiffre 12?—R. Parfaitement. Figure 2, figure 6 et figure 8, dans le brevet.

1944 Asked if he makes a distinction between a light and a Wandscheer heavy snow in so far as the efficiency of a chimney similar by. to the one described in Curtis patent (exhibit P10) is Sicard, Ltée concerned, Choquette replied (p. 283):

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R. Oui, dans un sens, parce qu'il faut d'abord comprendre que l'éventail, ce qu'on appelle le souffleur (blower), usité dans cet art ne fonctionne réellement pas en causant un courant d'air. Son travail est simplement de lancer par force centrifuge. Et lorsqu'il se présente un mur, qu'il soit courbé ou obliquement placé, la neige s'arrête à ce mur, à cette obstruction et ne peut continuer parce qu'elle n'est pas d'un corps comme l'on peut représenter la paille ou la plume.

Later, dealing with the chimney shown in figure 6 of patent exhibit P10, Choquette made these comments (p. 286):

- R. Mes remarques sur la figure 2 sont pratiquement les mêmes pour la figure 6.
- D. Référez-vous spécialement aux coudes de la cheminée?—R. Exactement.
  - D. C'est un coude formant angle droit?—R. Angle droit à 90 degrés.

Finally Choquette, speaking of the Chimney represented in figure 8, said that the same remarks applied (p. 288).

Referring to the mechanism in a machine having two spiral conveyors as model P13, conformable to the mechanism indicated in patent exhibit P10, to set in motion the conveyors, Choquette stated that it would not be practical (p. 321):

R. J'ai déjà dit que ce mécanisme n'est réellement pas pratique, parce qu'il offre des objections à la pratique même, empêchant la neige de pénétrer vers l'intérieur de la turbine.

Regarding the modification shown in figures 8 and 9 of the drawings annexed to the specification of patent P10, Ostrander, chief engineer of Klauer Manufacturing Company, owns that it would not be entirely practical on account of the snow and ice forming on the mechanism in the centre of the casing and preventing the snow from entering into the fan casing. Perhaps I should quote a brief excerpt from the witness' deposition:

- Q. From your knowledge and experience of the snow plow industry, is it not a fact that a construction of that type would not be practical on account of the snow and ice forming on this mechanism in the centre of the casing and forming an obstruction, preventing the snow from freely entering into the fan casing?—A. I think that is true. That would represent an obstruction and perhaps be a little hard to arrange in there and to cover.
- Q. In other words, it would not be practical?—A. Not entirely, I would think.

Ostrander admitted that neither Klauer Manufacturing

Company nor any other company or person ever con-Wandscheer structed a snow removing machine with a mechanism

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similar to the one shown on figures 8 and 9 of said patent Sicard, Litée (pp. 66 and 67).

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This evidence establishing the inoperativeness and want of utility of the snow remover made in conformity with patent exhibit P10 is unchallenged.

Counsel for defendant further argued that there is lack of subject-matter in this patent. The combination submitted by Curtis is, in my view, the juxtaposition of elements which were old and well known and it did not require the exercise of inventive ingenuity. I think that any skilled and competent mechanic could have done it. See Durable Electric Appliance Co., Ltd. v. Renfrew Electric Products, Ltd. (1).

Anglin, C.J.C., who delivered the judgment of the Supreme Court, said (p. 9):

The ground on which the Court of Appeal has rested its judgment is, we think, sound. As the case appears to us, there is nothing new in the appellant's device; no novelty is disclosed, notwithstanding the ingenious argument of appellant's counsel to the contrary. Admittedly all the elements of the plantiff's heater are old. The combination of them effected by him may be new in one sense—that is, precisely such a combination may not have been made before—but it is a combination the making of which did not involve any inventive ingenuity. Any competent and well-informed mechanic could readily have effected it.

Fox, in Canadian Patent Law and Practice, expresses the following opinion (p. 70):

The success of a patented combination has, of course, much to do with the question of subject-matter. Its merit will depend largely upon the result produced and although the invention be small the court will be anxious to uphold the patent if the result produced is greatly beneficial.

The author refers to a number of decisions, of which the following in particular are, to a certain extent, relevant: Hinks & Son v. Safety Lighting Co. (2); Patent Exploitation Ltd. v. Siemens Brothers and Co. Ltd. (3); Edison & Swan United Electric Light Co. v. Woodhouse & Rawson (4).

I may add that the United States patent No. 1,389,727, granted to Clarence W. Yeiter (part of exhibit D44), seems to me anticipatory.

<sup>(1) (1926) 59</sup> O.L.R. 527 (2) (1876) L.R. 4 ch. D. 607 at 615.

<sup>(1928)</sup> S.C.R. 8. (3) (1904) 21 R.P.C. 541 at 549.

<sup>(4) (1886) 4</sup> R.P.C. 79 at 106.

Wandscheer consideration and attentively perusing and annotating the evidence, I have reached the conclusion that the letters patent for invention bearing No. 253,159, granted to Harry Angers J. D. Curtis on the first of September, 1925, for alleged new and useful improvements in snow removers, are irregular, invalid, null and void as between the parties herein and that consequently the defendant has not infringed them.

I shall now deal with the other patent in suit, viz. the one bearing No. 309,848, issued to Dan Wandscheer on the 31st of March, 1931, for alleged new and useful improvements in snow removing apparatus, pursuant to an application filed on June 10, 1929.

The feature of this patent which plaintiffs contend has been infringed is the one mentioned in the specification as a shearing element and generally referred to in the evidence as cutter bars or sometimes snow slicers.

The clause of the specification concerning this feature has been previously recited and I need not repeat it here.

I do not think that this element constitutes valid subject matter for a patent. Moreover, it was known to the public long before the aforesaid patent was issued.

The addition of cutter bars in front of a snow removing machine to cut the snow from the banks and cause it to fall ahead of the scoop shovel or of the spiral conveyors, as the case may be, does not, in my judgment, require the exercise of the inventive faculty but is merely the use of plain mechanical skill. The simplicity of the adaptation of a cutter bar on a snow removing machine is particularly evidenced by the incident which occurred at Dubuque, Iowa, during the week of November 20, 1927, when Ralph Stewart, General Foreman for the Minnesota Highway Department at the Duluth district, went to Dubuque to take delivery for the State of Minnesota of a "Snogo" snow removing machine shipped by Klauer Manufacturing Company. I deem it apposite to quote a passage of Stewart's testimony which appears to me pertinent and especially to the point (p. 98):

A.... I had been plowing snow for three or four years for the Highway Department, and when the boss sent me to Dubuque to take delivery of this 'Snogo', I, of course, was curious to know what kind of machine

it was, and he did not seem to know; he told me it cost between ten and twelve thousand dollars, the latest piece of equipment in snow removal at Wandschees the time, the last word, in fact.

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Q. So you were very interested in this?—A. Yes, I thought all our snow problems were all solved; at that time, when we arrived at Dubuque, Sicard, Lite four or five men from the factory took us around the factory. In fact, they took me around the block with the machine and showed me how to operate it, and when we got back to the factory, I asked them what we were going to do with a machine like that in Minnesota, that did not seem like it was in the position, four or five feet high in front, and we had large drifts as high as fifteen feet deep. Some party, I don't remember his name, some one of the officials there, put on slicer bars.

- Q. Put on slicer bars?—A. Yes.
- Q. Did they explain to you how that was to be done?—A. He went into the shipping room where he picked up a piece of 1 x 4, I imagine, crating lumber, and held it up on the casing on the side of the 'Snogo' in such a manner as he told us to mount it.
- Q Perhaps if you state just where he told you to mount it?—A. Well, he told us to mount it on the left side or that happened to be the particular place that he held the 1 x 4, on the left side of the casing.

Stewart declared that Ferguson, to whose testimony I shall refer in a moment, was present when this conversation took place. According to him, the suggestion to put a cutter bar was made by one of a group of four or five men from Klauer Manufacturing Company whose name he did not recall (dep. pp. 99 and 100).

The "Snogo" machines in the Klauer Manufacturing Company's plant at the time were not equipped with cutter bars (p. 103).

In reply to questions from counsel for defendant, Stewart made certain remarks which are material and are worth quoting (p. 104):

- Q. Is it your feeling that party met the suggestion, just got that idea, and when you put to him the question as to how you would do in deep snow, that that was the solution that he offered spontaneously at that time?—A. Yes.
- Q. He did not suggest, I presume, that the invention had already been made at that connection?—A. No, I did not hear anything of the invention.
- Q. Or that the problem had already been studied at the time?— A. I doubt it.
- Q. I presume he just expressed that as being the natural thing to do?—A. That is what he told us would be the solution.
- Q. I suppose you also considered that to be the obvious thing to do? —A. That is right.

Stewart said he did not suggest to the representative of Klauer Manufacturing Company that the company should equip the machine with cutter bars before its delivery. He took it without the bars (p. 105).

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Percy Ferguson, Labour Foreman for the Minnesota WANDSCHEER State Highway Department for nearly twenty years, testified that he operated a snow plow every winter. Accord-SICARD, LITTE ing to him, the type used up to 1927 was the V-type plow. In the fall of 1927 the Department bought a two-auger "Snogo" rotary snow plow, a product of Klauer Manufacturing Company. He went to the company's plant, at Dubuque, to take delivery of the snow plow in the early part of November 1927; he drove it from Dubuque to St. Paul. He said that he met with difficulties in the operation of this plow on account of the very deep snow in some places, which was above the augers. He thought that a knife of some kind would be useful to cut through the snow and make it fall down in front of the machine. Perhaps I had better quote the witness' remarks in this connection (p. 5 in fine):

- A. We had very deep snow in some places, and it was way above the augers, three or four feet sometimes, or more, and some places, where it was so deep, we would run under, tunnel under as far as we could, and back out, but it would not break down. We had to have men with shovels to break this down.
  - Q. To break the snow that would remain on top?—A. Yes.
- Q. Above the tunnel formed by the machine?—A. Yes. In fact we got out and broke it down ourselves before we got men to help us. When we got to Willmar we had the blacksmith put on two bars, one on each side.
- Q. On each side of what?—A. On each side of the augers, on the outside.
  - Q. Do you mean on the sides of the main casing?—A. Yes.
- Q. Who suggested to you to install such bars?—A. No one. I could see what was needed on it. We had to have it.
- Q. Well, what led you to think of installing those bars?—A. Well, I thought if we had something to cut, a knife of some kind to cut through that snow, it would fall down,
- Q. It would fall down where?—A. Fall down so we could get it with the augers.

Ferguson said that the bars in question were installed by the blacksmith at the State shop at Willmar.

The witness then describes these bars and explains how they were installed. This occurred a week or ten days after Ferguson had left St. Paul, which would be about December 15 or 18, 1927. Ferguson asserted that he had never seen such bars previously.

Asked if he had thought of taking a patent on them, he replied in the negative; I deem it expedient to quote a WANDSCHEER ET AL. passage from his deposition (p. 9): v.

Q. You did not think of taking out a patent on that?—A. No, I did Sicard, Ltée not. Angers J.

Q. Why did you not?—A. Oh, it was such a simple operation.

In addition to the testimonies of these two independent and disinterested witnesses, there is the following statement by Sicard, who was asked if he had ever had the notion of seeking a patent on cutter bars (p. 89):

Je trouvais que c'était tellement de pure simplicité, je n'aurais jamais pensé de faire ce qui existait quand j'étais petit garçon.

It seems obvious to me that the cutter bars, or snow slicers as they have also been called, only required the use of ordinary mechanical skill and that they do not present that amount of inventive ingenuity which should be rewarded by a patent. In this connection reference may be had to the following decisions, although they can only serve as illustrations of the manner in which the Courts have treated various sets of circumstances and are not binding authorities to determine whether or not in any particular case there is present the essential feature of inventive genius: Imperial Tobacco Company of Canada Limited et al. v. Rock City Tobacco Company Limited (1); The Crosley Radio Corporation v. Canadian General Electric Company Limited (2); Porter et al. v. Corporation of City of Toronto (3); Canadian Gypsum Company Limited v. Gypsum, Lime and Alabastine, Canada, Limited (4): Gillette Safety Razor Company of Canada Limited v. Pal Blade Corporation Limited et al. (5); Wright & Corson v. Brake Service Limited (6); Thomas v. South Wales Colliery Tramworks and Engineering Company Limited (7).

See also: Lister v. Norton Brothers and Co. (8): Savage v. D. B. Harris and Sons (9) (per Lopes, L.J.); Lyon v. Goddard (10) (per Bowen, L.J.).

- (1) (1936) Ex. C. R. 229; (1937) S.C.R. 398.
- (2) (1935) Ex. C.R. 190; (1936) S.C.R. 551.
- (3) (1936) Ex. C.R. 217.
- (4) (1931) Ex. C.R. 180.
- (5) (1932) Ex. C.R. 132; (1933) S.C.R. 142.
- (6) (1925) Ex. C.R. 127 at 131.
- (7) (1924) 42 R.P.C. 22 at 28.
- (8) (1886) 3 R.P.C. 199 at 205.
- (9) (1896) 13 R.P.C. 364 at 370.
- (10) (1893) 10 R.P.C. 334 at 346.

Let us now consider the question of anticipation. The Wandscheer proof clearly shows that cutter bars were in use and known to the public prior to the issue of patent No. 309,848 to Dan Sicard, Little Wandscheer and to the application therefor, filed on June Angers J. 10, 1929, as appears by exhibit P12.

The evidence discloses that cutter bars were used by Sicard since 1924 on his snow removing machine of the scraper type.

Eugène Lacombe, automobile salesman for Garage Fortier, Limitée, of Montreal, testified that he commenced working for the said firm as a mechanic in the shop in December 1923. In the fall of 1924 he saw a snow removing machine of the scraper type supposedly built by Sicard, which was brought to the Fortier garage for storage. The machine was used for demonstration purposes, in opening roads. Shown the picture of a machine appearing on page 4 of the catalogue exhibit P7, Lacombe recognized it as the type of machine to which he had referred.

Asked if the machine in storage in the Fortier garage was exactly the same as represented in exhibit P7 or if it had something more—"quelque chose de plus"—Lacombe gave the following information (p. 55):

- R. Il y avait certainement quelque chose de plus. Il y avait certainement le couteau de côté, et ils l'ont améliorée en avant. Les deux années qu'elle a été en 'storage', ils sortaient, ils amélioraient cela. Je sais que celle-là n'a pas de barres à côté du couteau. J'ai manqué de perdre ma 'job', par rapport à cela. C'est pour cela que je m'en rappelle.
- D. Qu'est-ce que vous voulez dire par cela?—R. C'est par rapport que j'ai reculé dessus avec un truck.
- D. Nous ne sommes pas intéressés dans cette histoire là. Maintenant, la première fois que vous avez vu cette machine à neige, dans l'automne 1924, comme vous avez dit, est-ce qu'il y avait un couteau dessus?—R. Oui, monsieur.
  - D. Couteau sur le côté?—R. Oui, il y avait un couteau sur le côté.

At the request of counsel for defendant, Lacombe described in detail the cutter bar in question and, with the aid of the picture on page 4 of exhibit P7, indicated its position in front of the machine to the right of the driver. If these particulars are not of first importance, they show that Lacombe had occasion to examine minutely the Sicard snow remover fitted with a cutter bar and that he evidently did so.

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Adélard Turcot, mechanic presently in the employ of the Roads Department of the province of Quebec, WANDSCHREE declared that he worked for Sicard beginning in August 1926. In the winter of 1926-1927, he drove for him a Sicard, Litter snow removing machine of the scraper type. Shown the Angers J. machine represented on page 4 of exhibit P7, Turcot said that he recognized it as the one he operated for Sicard. This machine was used for demonstration purposes. Turcot asserts that it had a cutter bar on its right side (p. 33). He describes it thus (p. 34):

R. Exactement la longueur, le tour du 'scraper' qui dépassait le 'scraper', le premier devait avoir une quinzaine de pouces qui dépassaient, parce que je l'ai défait moi-même, je l'ai crochi, je l'ai envoyé pour le faire dresser, mais on se servait du 'scraper' pas de couteau, quand il était enlevé pour réparation.

- D. Vous dites que le premier couteau qu'il y avait dépassait environ 15 pouces le côté de l'appareil?-R. Au-dessus du côté du 'scraper'.
- D. Au-dessus du côté du 'scraper', c'est-à-dire du côté de l'appareil?— R. Oui, du côté de l'appareil.
  - D. En avant du souffleur?—R. En avant du souffleur.

Asked what was the purpose of this cutter bar, Turcot replied (p. 34):

- R. C'était fait en partie pour couper la glace et la neige dure quand on donnait des démonstrations, ils nous envoyaient toujours dans les chemins les plus durs, dans les chemins abandonnés, et cela prenait absolument un couteau pour couper le côté de la neige.
- D. C'est-à-dire dans les bancs de neige?—R. Dans les bancs de neige, qui servaient à retomber la neige dans le souffleur, quand il y en avait trop haut.

Turcot declared that he drove snow removing machines for Sicard nearly every winter since 1927. During the winters when Sicard did not sell machines, witness worked in the shop as mechanic. When Sicard had a demonstration to do with one of his machines, Turcot said that he usually drove it.

Turcot believes that it was in the fall of 1927 that the first machine of the scraper type was sold to the city of Outremont. He delivered it himself and he was there for a period of about two months. This machine was equipped with a cutter bar.

Counsel for defendant exhibited to the witness the drawing filed as exhibit D4 and asked him if he recognized thereon the cutter bar he had mentioned. Turcot said that he did and he indicated the figure on the left hand side of the drawing above the words "front elevation".

UANDSCHEER since 1936, testified that he had previously worked for the same firm in 1929, 1930 and 1931.

Sicher, Little Between 1927 and 1929 he was employed by Louis Angers J. Lirette, blacksmith. He said that he saw a Sicard snow removing machine of the scraper type in 1927. He made various parts of this machine for Sicard. Shown the machine reproduced on page 4 of exhibit P7, he recognized it as the type of machine to which he referred (p. 213). He remembered that the machine which he repaired in 1927 had a cutter bar on the right side.

Asked what he had done on it, Larose replied (p. 214):

R. Dans le côté, il y avait des bras qui avaient été crochis, les bras pour tenir le 'scraper', et le couteau était crochi. On l'a redressé, on a travaillé une autre partie dans ce côté de la machine, une espèce de garde qu'on a posée en même temps.

\* \* \* \* \*

D. Mais quant au bras tranchant, savez-vous quelles sont les réparations que vous avez faites sur ce bras tranchant?—R. On l'a redressé.

Counsel for defendant exhibited to the witness an account of Louis Lirette for work done on February 7, 1927, and asked him if it included the repairs made to the cutter bar; Larose answered that it did (p. 214). The account was filed as exhibit D10.

Larose described the cutter bar in detail and explained how it was fixed to the machine; I do not think that this information has any materiality herein. Looking at exhibit D4, Larose said that the cutter bar was installed on the machine in the manner shown in this drawing.

He stated that in 1929, whilst in the employ of Sicard limitée, he was instructed by Sicard to demolish the machine, which he did with the aid of Prime Durocher during the summer of 1929. The machine at the time had the same cutter bar.

Prime Durocher, mechanic in the employ of Sicard limitée since the beginning of May 1927, said that in June of the same year he built a miniature model of snow removing machine with spiral conveyors pursuant to instructions received from Sicard. He describes the model fully; I do not believe that this description has any relevance to the question at issue.

He said he built a regular size model of this machine 1944 with spiral conveyors in 1928 (p. 234). He believes that Wandscheer he put cutter bars on both sides of the machine (p. 236).

Signal Like To a Signal

Shown the prospectus filed as exhibit P6, Durocher stated that the cutter bars were put on the machine in the manner indicated thereon.

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He declared that the machine built in 1928 was sold the following year to the city of Outremont.

He knew that snow removing machines of the type he built in 1928 were sold by Sicard limitée in 1929, 1930 and 1931 after the sale to the city of Outremont.

Durocher declared that he was instructed by Sicard in the summer of 1929 to dismantle a snow removing machine of scraper type. He remembered that this machine was equipped with a cutter bar on its right side (pp. 240, 241 and 243). He said that the machine reproduced on page 4 of exhibit P7 is similar to the one which he dismantled.

There follows a detailed description of the cutter bar in question, which, as I think, offers no particular interest in connection with the point now under discussion.

Asked if the cutter bar was installed as shown on the drawing exhibit D4, Durocher replied in the affirmative.

Sicard testified that in the winter of 1924-1925 he put a cutter bar on his machine used for demonstration purposes. Asked why he had installed a cutter bar and how he had picked up the idea of doing it, Sicard replied (p. 81):

R. Cette idée m'est venue en 1898. J'ouvrais les chemins l'hiver pour les mettre carrossables pour le printemps et on se servait d'une charrue avec couteaux pour trancher la neige, ouvrir nos chemins, c'est là-dessus que l'idée m'est venue. Seulement, le couteau, au lieu d'être en ligne, la pointe était en bas. Et pour labourer notre neige, rien que la peine de la mettre en l'air. Curieuse de coincidence, c'est à peu près la même forme de couteau, la même chose, seulement un peu plus long.

D. Ce couteau, l'avez-vous installé sur cette machine après vous être servi de la machine pendant quelque temps ou si vous l'avez mis immédiatement au début?—R. Au début, à peu près, parce que j'avais déjà l'expérience de mon premier 'scraper' dans le côté qui coupait mais qui n'était pas aussi haut. Au début, au premier essai, comme on était toujours à travailler dans le côté du chemin, dans des remparts de neige, j'ai posé de suite le couteau après le premier essai qui m'était bien familier.

Explaining why he had put the cutter bar on the right Wandscheef hand side of the machine, Sicard stated (p. 82):

R. C'est parce que j'avais plus besoin du côté droit, on travaillait sicano, Ltée toujours à la droite pour rencontrer. Sur le chemin, on marche à la droite, je prenais toujours ma neige à la droite, la bande de neige de la droite, près des clôtures si vous voulez, c'est toujours plus élevé. Cela nous demandait plus haut pour aller chercher la neige. C'est pour cela que je l'ai installé rien que d'un côté. Je trouvais que ce n'était pas nécessaire dans le temps de le mettre à gauche.

Sicard said that the cutter bar was affixed to the machine in the manner indicated on the drawing exhibit D4, prepared by Choquette in accordance with the instructions which he gave him. It may be expedient to quote a passage from his deposition in this respect (p. 86):

- D. Je demande si dans la réalité le bras tranchant était installé tel qu'indiqué sur le dessin D-4?—R. Oui, monsieur.
- D. Par conséquent, un peu incliné vers l'avant?—R. Incliné vers l'avant, peut-être un peu de côté, mais très peu.
- D. Quand vous dites un petit peu de côté, mais très peu, vous voulez dire un petit peu vers la droite sur le côté de la machine?—R. penché sur le côté de la droite de la machine, penché en dehors de la droite.
- D. Regardant à la vue d'en haut qui est contenue sur ce dessus D-4, du côté gauche, dans le bas, et qui est intitulé 'Top view', où l'on voit un côté de la machine, et où on voit aussi le couteau qui incline légèrement vers la droite. Est-ce que c'était penché comme cela.—R. C'est bien cela.
- D. Et vous avez donné instructions à M. Choquette de préparer le dessin de cette façon-là?—R. Oui, monsieur.

Sicard stated that he used this snow removing machine of the scraper type, fitted as we have seen with a cutter bar, during the winters of 1924-1925, 1925-1926 and 1926-1927 (p. 87).

Zygmund L. Phillip, purchasing agent and assistant secretary at the Imperial Machine Company, of Minneapolis, State of Minnesota, testified that the main product of his company is snow plows. He has been connected with the company since August 1926.

According to him Imperial Machine Company built snow plows for the Rotary Snow Plow Company up to 1928 or 1929 when the latter became amalgamated with the former; since that date the Rotary Snow Plow Company has been owned and operated by the Imperial Machine Company.

Phillip said that the records show that the Imperial Machine Company and the Rotary Snow Plow Company had been manufacturing or selling snow plows since 1922.

Asked to give a general description of the type of snow 1944 plows manufactured by the Imperial Machine Company Wandscheer for the Rotary Snow Plow Company in or around the v. year 1927, the witness gave the following information Sicard, Litter (p. 4):

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A. At that time we built a rotary type plow. It was a V-type rotary with two rotors, one on each side, discharging snow both ways, right and left, housed in by a chute, with a slicer blade alongside of the rotor and slightly ahead of the rotor.

- Q. Was there a slicer bar on each side, or only on one side of the plow?—A. It could be attached on each side. In some cases we attached them only on the righthand side for widening purposes.
- Q. In other cases, on both sides?—A. In other cases on both sides—in very few cases on both sides at that time.

Shown a circular of the Rotary Snow Plow Company illustrating a snow plow and asked if it represents a machine built by the said company and, if so, in what year, Phillip replied that this snow plow was designed and sold in about the year 1929. This circular, marked on the examination of witness out of Court as exhibit D18, was produced at the trial as exhibit D32.

Phillip said that his company had a circular showing the type of snow plow sold in 1927 but that he had no copy of it. He explained the difference between the model of 1927 and the one illustrated in the circular exhibit D32 by stating that the model of 1927 had a stationary chute and straight slicer blades, whilst the other model has a reversible chute. In addition to this change in the chute there was a slight modification in the mould-board. Dealing with the slicer blade, Phillip stated that on the previous models it "was bolted on with an angle, on top of the chute, extending up over the rotor and slightly ahead of the rotor" (p. 5).

He declared that slicer bars were adapted to snow plows of the Rotary Snow Plow Company in January 1927. According to him, the slicer bars were not put on all of the snow plows produced by the Imperial Machine Company at that time, but they were put on quite a number of them. In addition, slicer bars were sold to dealers or to customers who wished to put them on the plows themselves (p. 7).

Phillip produced a drawing which he said he traced in Wandschier the files of the Rotary Snow Plow Company, dated November 16, 1926, marked by the reporter as exhibit Sicard, Ltée D19 (exhibit D33 at trial), representing the original slicer blade used by the company starting in the month of January 1927. He said that the bottom part of this drawing, which is in two sections, shows the snow plow before the slicer blade was attached to it. Some time later the upper portion was pasted at the top so as to have a drawing showing the slicer blade affixed to the snow plow.

Describing this slicer blade and explaining how it is fastened to the snow plow, Phillip made the following observations (p. 9):

- A. The slicer blade is held by an angle iron either bolted or molded over the top of the mold board, protruding above and ahead of the rotor. To the angle iron there is bolted a slicer blade which slices the snow banks.
- Q. I take it then that the slicer blade itself does not extend downward? —A. Well, that all depends on the length of this bar, this blade itself. If you check the length of this bar you will find that this bottom point probably comes down below the top of these rotors.
  - Q. It does not extend farther down?—A. No, it does not.
- Q. So the slicer bar is intended to take the upper portion of the snowbank?—A. That is right.

Asked if he had traced in the company's books and files sales of these cutter bars or snow slicers made in January or February 1927, Phillip said that he did and he filed various documents: orders, invoices, drawings and letters, showing sales thereof made in January and February 1927: see exhibits D34, D36, D37, D39, D40, D41 and D42.

Anticipation also arises from the following prior patents:

(a) United States patent No. 379,441, issued on March 13, 1888, to Lewis John Bergendahl, for improvements in railway-track clearers or snow-plows, pursuant to an application filed on November 3, 1887.

The specification contains the following description of the member of the machine whose object is to cut the snow and feed it into the revolving drum:

Side cutters or doors, F, are set at any required angle by means of levers f1 and connecting-rods f2, and are retained and locked in position by means of racks f3, of which one only is shown in Fig. 1.

Further on the specification, outlining the operation of the machine, adds:

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. The operation of my plow is as follows: Doors F are set as required, then locked in position by means of levers f1 and rack f2, and then drum Sicard, Litée S is caused to revolve rapidly. Meanwhile cutters f at the front of the drum will adjust themselves according to the direction of rotation of said drum S. Now, if the plow be propelled forward through a snow-bank, the flaring hopper in front of drum S will scoop in the snow, which will be cut up and thrown into the several chambers formed by the radial plates R. as before described. From thence the snow will be hurled by centrifugal force through the top opening of casing B.

A reference to figure 1 of the drawings indicate clearly the purpose of these "side cutters".

(b) United States patent No. 71,249, issued on November 19, 1867, to Peter Von Lackum, for an improved snowplow (date of application not mentioned).

Describing what the patentee calls "bars", which in this invention play the part of the cutter bars or snow slicers involved therein, the specification says:

At the front of the frame Al I secure, on each side, a strong vertical iron bar, a; and these are connected at the top by a similar cross-bar, b; and these bars are held securely in place by means of the side-braces c and horizontal brace e, arranged as represented in the drawing, there being also a curved bar, d, having its lower end secured to the incline, nearly in line with the side-bars a, and its upper end secured to the horizontal brace e, the front edge of all these bars being brought to an edge on their front, for the purpose of enabling them to cut the hard snow-drifts which frequently form on the railway tracks in high latitudes.

It seems obvious to me that these vertical bars serve the same purpose as the cutter bars which are the object of the patent exhibit P12.

(c) United States patent No. 858,616, issued on July 2. 1907, to James William Mowbray, for improvements in snow-plows, following an application filed on March 20, 1907.

The specification forming part of this patent provides for "cutting knives" and describes them as follows:

E are cutting knives, which are designed to sever the snow to be raised from the bank of snow or drift. The front edge of the cutting knife is on a vertical plane at right angles to the track surface, but the knives flare outwardly laterally from the bottom to top and are wider apart at the bottom than at the top. The outward flare of the knives is so arranged that the plane of the knives is co-incident with the plane of the flaring sides of the scoop as will be understood on reference to Fig. 2, so that the snow is cut or severed with outwardly inclined walls at each side.

Figures 1 and 2 of the drawings show these cutting Wandscheef knives distinctly.

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Copies of these three patents are included in exhibit D45.

Counsel for plaintiffs argued that the cutter bar used by Sicard on his machine, assuming that there was one, is different from the one adopted by Dan Wandscheer and does not comply with the requirements of patent exhibit P12 because the Sicard cutter bar is slightly inclined outwardly and cannot perform the same function as a vertical one and cut the snow in a level bank.

Counsel for defendant in reply pointed out that claims 6 and 9 of patent exhibit P12, which are the only ones referring to a vertical plane, use the expression "in substantially vertical planes". He submitted that the cutter bar in the Sicard machine was in fact arranged in a substantially vertical plane. He also argued, of course, that the Sicard contrivance fulfills the same purpose as that of the patentee Dan Wandscheer.

In my opinion, the cutter bar put on the Sicard snow removing machine filled the same function as the one mentioned in patent exhibit P12. It cut into the upper layers of snow so as to cause this snow to fall in front of the conveyors and be swept back into the fan casing.

After mature deliberation, I do not think that the contention of counsel for plaintiffs is tenable. Anticipation seems to me obvious.

Before ending these notes, I wish to say that I do not believe that the intimation by plaintiffs' counsel that Sicard abandoned the scraper type of snow plow and adopted the spiral conveyor snow remover after he had seen a "Snogo" apparatus, shipped to Montreal towards the end of December 1927 or the beginning of January 1928, is founded. In fact the "Snogo" machine in question reached Montreal shortly before Gerrit Wandscheer and William H. Klauer arrived there, probably a day or two before the latter sent a telegram to W. E. Klauer, at Dubuque, Iowa, stating that a lower auger had been broken and asking to send one by express to Batchelder, Chicago, immediately. A copy of this telegram, dated January 6,

1928, exhibited to Gerrit Wandscheer was marked by the reporter as exhibit C and produced at trial as exhibit P9c WANDSCHEER—see deposition Gerrit Wandscheer, pp. 2, 3 and 4.

A few brief extracts therefrom may be convenient (p. 2): Sicard, Liée

- Q ... Are you aware that there was a Snogo machine at one time shipped to Montreal, Canada?—A. Yes. It was up there when I got there, I know that.
- Q. Well, when did you first go to Canada?—A. That was either the latter part of December 1927 or the very first part of January 1928.
- Q. And what was the purpose of your going to Canada at that time?

  —A. To start this plow out for the Klauer Manufacturing Company.
- Q. And did the plow have cutter bars on it, when you arrived?—A. No, it did not.
- Q. Were cutter bars installed on it later?—A. There were. I carried those cutter bars with me all the way down there, that is, from one depot to the next, a set of bars, and I put them on, myself, the minute I got there.
- Q. And that would be, you say, whether in the latter part of December, 1927, or just after the New Year in 1928—A. Well, when I put them on, I should judge that was the first part of January.
  - Q. In 1928?—A. Yes.
- Q. Was anybody with you on that visit to Canada?—A. Mr. William  $\hat{H}$ . Klauer was with me.

## Then on page 3:

- Q. In order to fix the date in your mind as to when this visit took place do you recall if you or Mr. Klauer sent any telegram that might be traced?—A. Yes, I do.
  - Q. Who sent any telegram?—A. Mr. Klauer did.
  - Q. And where did he send it?

\* \* \* \*

- A. To the Klauer Manufacturing Company at Dubuque.
- Q. Were you with Mr. Klauer when the telegram was sent?—A. Yes, I was.

The telegram was then shown to the witness who identified it.

Now the evidence shows that Sicard commenced to busy himself with a spiral conveyor snow remover in June 1927, when he and his employees constructed a miniature model: dep. Sicard, p. 97; dep. Durocher, p. 226.

At page 97 Sicard makes the following statement:

- D. Quand avez-vous commencé à vous occuper du problème de machines à neige avec spirale?—R. En 1927, dans le mois de juin.
- D. En juin 1927, qu'est-ce que vous avez fait en juin 1927, à ce sujet-là?—R. On a fait un petit modèle, comme on pourrait dire miniature
- D. Quand vous dites 'on a fait', de qui parlez-vous?—R. Moi-même, avec mes employés.

Sicard then explains in detail how this model was made.  $W_{\text{ANDSCHEER}}$  I do not think that it is opportune to reproduce here these explanations which are rather lengthy.

Sicard, Ltée Angers J.

Durocher, who said that he commenced to work for Sicard in May 1927, corroborated the latter's testimony in this connection. I may perhaps quote a short passage from his deposition (p. 226):

- D. Avez-vous eu quelque chose à faire dans la construction d'un modèle miniature de machine à neige?—R. Oui, monsieur.
- D. Est-ce vous qui avez construit ce modèle miniature?—R. Oui, sur demande de M. Sicard.
- D. D'après les renseignements et les instructions de qui avez-vous construit ce modèle?—R. De M. Sicard.

\* \* \* \* \*

- D. Quand ce modèle miniature a-t-il été fait par vous?—A. A peu près en juin, je crois.
  - D. De quelle année?—R. 1927.

Durocher also describes at length the different features of this model; I do not deem it useful to quote this description.

After carefully perusing and annotating the evidence I have come to the conclusion that claims 6, 7, 8, 9 and 10 of the letters patent for invention No. 309,848 granted to Dan Wandscheer on the 31st day of March, 1931, for alleged new and useful improvements in snow removing apparatus, the said claims relating to the shearing element called a cutter bar or blade in the last paragraph but one of the specification and cutter bars or plates in claims 7, 9 and 10 is concerned, are irregular, invalid, null and void as between the parties herein and that consequently the defendant has not infringed them.

For the aforesaid reasons there will be judgment dismissing the action, with costs against plaintiffs.

Judgment accordingly.