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Docket: T-1554-05

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Toronto, Ontario, January 20, 2009

PRESENT: The Honourable Mr. Justice Campbell

BETWEEN:

**BRIDGEVIEW MANUFACTURING INC. and
HIGHLINE MANUFACTURING LTD.**

Plaintiffs

and

**931409 ALBERTA LTD. c.o.b. CENTRAL ALBERTA HAY CENTRE,
DENNILL'S AGRICENTER LTD. and
DURATECH INDUSTRIES INTERNATIONAL, INC.**

Defendants

AND BETWEEN:

**931409 ALBERTA LTD. c.o.b. CENTRAL ALBERTA HAY CENTRE,
DENNILL'S AGRICENTER LTD. and
DURATECH INDUSTRIES INTERNATIONAL, INC.**

Plaintiffs by Counterclaim

and

**BRIDGEVIEW MANUFACTURING INC. and
HIGHLINE MANUFACTURING LTD.**

Defendants by Counterclaim

REASONS FOR JUDGMENT AND JUDGMENT

[1] Bridgeview Manufacturing, a Saskatchewan corporation, and DuraTech Industries, a North Dakota corporation, are each manufacturers of their own version of a machine used for disintegrating baled crop material, respectively named the Bale King and the Balebuster 2650. These “bale processors” take a round bale of hay, disintegrate it, and distribute the discharge on the ground. Watching the discharge is important because quick action is needed if the processor jams. An important feature of each bale processor is that, as a tractor pulls it forward, each discharges the disintegrated bale material to the right-hand side viewed from the driver’s position looking forward. Tractors have the controls on the right, and because each machine discharges to the right, the driver can conveniently watch the discharge over his or her right shoulder. A right-hand discharge is considered to be an advantage because a left-hand discharge requires the driver to, inconveniently, turn more fully to the right to see the discharge coming out the left-hand side. The marketing material of each machine is designed to attract buyers to this advantage.

[2] The present litigation centres on the fact that DuraTech’s development of the Balebuster was inspired by Bridgeview’s Bale King. The Bale King was on the market when DuraTech went into production with the Balebuster, and DuraTech knew that Bridgeview held a patent for its right-hand discharge system. Therefore, the primary issue for determination is whether the Balebuster’s right-hand discharge system infringes Bridgeview’s Canadian Patent No. 2,282,334 (the Patent or the ‘334 patent).

[3] With respect to Bridgeview's claim of monopoly to the advantage of a right-hand discharge bale processor, a principal argument advanced by DuraTech is that the Balebuster does not infringe because its discharge system is different than that claimed in the Patent. DuraTech also argues that the Patent is invalid because the use of a right-hand discharge on a bale processor is not inventive.

[4] For the reasons which follow, I accept DuraTech's arguments that the Balebuster does not infringe the Patent and the Patent is invalid.

[5] The law on patent construction, infringement, and invalidity is generally not in dispute. As a result, the law applied on these issues is summarized and stated in Appendix A, with specific quotations from the summary being included in the body of these reasons for emphasis. The approach adopted in these reasons is to first identify the issues in play with a question, and then supply reasons for the conclusion reached on each issue.

I. The Litigation

[6] Bridgeview's co-Plaintiff, Highline Manufacturing, manufactures a right-hand discharge bale processor sold under the name of "Bale Pro" as a licensee under the Patent. DuraTech's co-Defendants are Canadian sellers of the Balebuster.

[7] Bridgeview's Amended Statement of Claim makes the following statement respecting "the Defendants' wrongful activities":

9. The Defendants, Central Alberta Hay and Dennill's, have sold, sell and offer for sale in Canada a crop material processor known as the

“Haybuster 2650 Balebuster” (the “2650”), which is manufactured in the U.S. by DuraTech. By reviewing at least the products, brochures and other materials of Bridgeview known to DuraTech prior to 2004, DuraTech learned of designs being manufactured and sold by Bridgeview, including “Bale King” right-hand discharge bale processors. Based on the right-hand discharge designs that it learned, DuraTech proceeded to copy this aspect of Bridgeview’s bale processors during the manufacture of the 2650.

[...]

11. As such, in the absence of proper authorization, said sales by the Defendants, Central Alberta Hay and Dennill’s, of the 2650 constitute infringement of the ‘334 patent. These unauthorized sales have been made in Canada since at least June 2004, the full particulars of which being known to said Defendants and not the Plaintiffs. However, the Plaintiffs claim in respect of all infringing activity.

12. The Defendant, DuraTech, also manufactures a crop material processor known as the “Haybuster 2800 Balebuster” (the “2800”).

[...]

14. Without proper authorization, the 2800 has been used and sold in Canada, which constitutes the infringement of the ‘334 patent. The full particulars of the use and sale in Canada of the 2800 are known to the Defendant, DuraTech, and not the Plaintiffs. However, the Plaintiffs claim in respect of all infringing activity.

15. The Defendant, DuraTech, has induced or procured the said infringing activity in respect of both the 2650 and the 2800. This infringing activity would not have occurred but for DuraTech manufacturing the 2650 and the 2800 for the purpose of use and sale in Canada, and DuraTech exercising influence over Central Alberta Hay, Dennill’s, all Canadian distributors of DuraTech’s 2650 and 2800, and others known to DuraTech, to undertake the infringing activity in respect of both the 2650 and 2800 in Canada. DuraTech’s inducement and procurement of said infringing activity has been furthered by its marketing and advertising activities with respect to both the 2650 and the 2800 in Canada, which activities are directed towards all Canadian distributors of DuraTech’s 2650 and 2800. DuraTech’s inducement and procurement has been taking place since at least as early as September 2003 in respect of the 2650 and since at

least as early as February 2005 in respect of the 2800, the full particulars of which being known to DuraTech and not to the Plaintiffs. However, the Plaintiffs claim in respect of all inducing and procuring activity.

[8] In its Amended Statement of Defence and Counterclaim, DuraTech fully defends its actions but does provide the following response to paragraph 9 of the Amended Statement of Claim:

10. As to paragraph 9, the defendants Central Alberta Hay and Dennill's admit only that they have sold, sell and offer for sale a bale processor known as the "Haybuster 2650 Balebuster." And, DuraTech admits only that it was aware that Bridgeview had begun marketing a "Bale King" right-hand discharge bale processor prior to DuraTech designing the "Haybuster 2650 Balebuster."

At trial, Counsel for DuraTech stated that if infringement is proved, Bridgeview's inducement allegations would not be defended, and also stated that it would not be advancing an argument on the issue of anticipation.

[9] It is agreed that the Balebuster 2650 and its larger version the Balebuster 2800 have the same basic design, and, therefore, the infringement issue centres only on the Balebuster 2650. It is also agreed that the claim date against which prior art is to be decided is April 30, 1999; the Patent is entitled "Crop Material Processor" and was issued on November 20, 2001 from an application filed on September 17, 1999 and published on April 13, 2000, but it claims priority from U.S. Patent Application Serial No. 09/303,263 filed on April 30, 1999.

II. The Expert Evidence

[10] Each side to the litigation has tendered one expert to offer an opinion on the correct construction of the claims in the Patent, whether DuraTech's machine infringes the Patent, and whether the Patent is invalid.

A. The experts

[11] DuraTech's expert is Dr. Richard L. Parish, and Bridgeview's expert is Mr. Craig Hanson. The following reports were prepared: Dr. Parish prepared a report dated August 28, 2008 (Parish Report); Mr. Hanson prepared a report dated September 2, 2008 (Hanson Report); Dr. Parish prepared a response to the Hanson Report dated October 1, 2008 (Parish Second Report); and Mr. Hanson prepared a response to the Parish Report dated October 1, 2008 (Hanson Second Report).

[12] Dr. Parish describes his qualifications as follows:

I am a Professor of Agricultural Engineering at Louisiana State University ("LSU") and a Professional Engineer.

I obtained my Bachelor of Science in Agricultural Engineering in 1967, my Masters of Science in Agricultural Engineering in 1968, and my PhD in Agricultural Engineering in 1970, all from the University of Missouri.

I began teaching at the University of Arkansas as an Assistant Professor, then Associate Professor of Agricultural Engineering from 1969-1974. During this period, I conducted research on farm machinery as well as teaching agricultural equipment and engineering design courses.

My principal industry experience was from 1974 to 1983 when I worked as the Manager of Mechanical Research and Development with O.M. Scott and Sons Company ("Scott"), a seed and fertilizer company, where I was responsible for all the mechanical products

of the company. During this period I developed new fertilizer and seed spreading equipment.

Since 1983, I have been an Associate Professor and then full Professor at LSU. I have developed and taught courses in agricultural machinery and design. Some of my students have gone on to work as engineers designing agricultural equipment, including hay and forage equipment. I have also conducted research on farm equipment and I serve as a State Extension Specialist in farm machinery. I currently manage the Coastal Area Research Station in addition to my research and extension responsibilities.

I have written or co-written over 350 articles and papers in the fields of engineering and agriculture.

I have acted as a consultant providing forensic engineering services and litigation assistance in more than forty (40) cases involving agricultural equipment. Three (3) of the cases I was involved with were patent cases.

(Parish Report, paras. 1-6)

[13] Bridgeview's expert is Mr. Craig Hanson who describes his qualifications as follows:

I am currently the owner and operator of a medium-sized grain farm of approximately 4,000 acres. I am also registered in the province of Saskatchewan as a professional engineer (P. Eng.) and as a consulting engineer.

In 1984, I obtained my Bachelor's degree in Agricultural Engineering from the University of Saskatchewan. My undergraduate courses included the study of machine design and agricultural processing methods. I obtained my Professional Engineer status in 1987.

In 1993, I obtained my post-graduate diploma in Agricultural and Bioresource Engineering from the University of Saskatchewan. My program included classes in control system design, engineering analysis, and pattern recognition.

I obtained my Master's of Science in Mechanical Engineering, again from the University of Saskatchewan, in 1998. My Master's degree

thesis was entitled “Analysis of Operator Patterns in Machine Operation for Automatic Guidance of Agricultural Equipment”.

When I graduated with my Bachelor’s degree in 1984, I was employed with John Deere Limited as an area service manager. My position required that I investigate problems with agricultural machinery in the field and report technical problems and solutions.

I then worked at the Humboldt, Saskatchewan station of the Prairie Agricultural Machinery Institute (“PAMI”) from 1987 to 1997 as a project manager, as well as project engineer/field test supervisor for various agricultural machines. During my time at PAMI, I directed evaluation, and research and development projects relating to agricultural and processing machinery systems.

Of particular relevance to this case, as part of my job responsibilities for PAMI I was exposed to and conducted testing on a Highline Manufacturing Ltd. “Top Gun” bale processor over the period of 1995 to 1997. The Top Gun was essentially a bale processor having a high-powered blower. My duties relating to the Top Gun included performing drive train analyses, taking power measurements, and specifying driveline components.

In addition to the above, I observed an older Haybuster (i.e., DuraTech Industries International, Inc.) bale processor in operation in Colorado in 1997.

I left PAMI in 1997 to focus on operating my farm (Kinhop Farms Ltd.) and to provide engineering consulting services. I have given expert evidence before the Courts on four previous occasions: one involving the performance of hydraulically powered equipment; one involving drive-over conveyors; one involving vertical feed mixers; and one involving a powered drain cleaner and related safety factors. Two of the four cases involved patent infringement claims.

In addition to my academic studies of agricultural machinery undertaken in my engineering courses, I have over 25 years of practical experience using a wide variety of agricultural equipment.

(Hanson Report, paras. 2 -11)

[14] No objection was raised to the qualifications of either Dr. Parish or Mr. Hanson to give expert opinion on the issues in the present litigation.

III. Who is the Ordinary Person Skilled in the Art?

[15] The Patent concerns the design and functioning of a bale processor. Therefore, the skilled person is required to have common general knowledge of this subject matter as described in the Patent's disclosure and claims.

A. The disclosure

[16] The "Field of the Invention" section states that "the present invention relates generally to a crop material processor and more particularly to a crop material processor for disintegrating baled crop materials". The "Background of the Invention" section describes that a typical example of such a known machine "comprises a container for receiving the bales, a disintegrator often in the form of a roller with cutters or flails for chopping or shredding the material from the bale, a mechanism including manipulator rollers to direct the bale to the disintegrator and a discharge slot such that the crop material is discharged from the bail processor", and states that "one of the major problems which appears to occur with baled crop material processors is that they tend to jam". Following a description of the factors that cause jamming in the typical machine the opinion is expressed that "there is a need to provide a crop material processor for disintegrating baled crop material capable of keeping to a minimum the amount of loose crop material in the processor that may cause jamming".

[17] Consistent with the opinion that there is a need to improve the machine to reduce jamming, the first line in the “Summary of the Invention” section states “it is therefore an object of this invention to provide a baled crop material processor that minimizes jamming”. The description of the certain machine that will accomplish this result is contained in the immediately following paragraphs:

These and other objects are achieved in a baled crop material processor for disintegrating baled crop material. The crop material processor comprises a container having a bottom, a front wall, a back wall, and left and right side walls for receiving and containing the crop material. A disintegrator having a flail roller that is rotatable about its own longitudinal axis is mounted to extend between the front and the back of the container. A number of flails are pivotally fixed about the flail roller such that they will extend radially from the flail roller as the flail roller rotates. The processor further includes a discharge opening at the bottom of either the left or the right side wall to discharge the disintegrated baled crop material and a mechanism for supporting and manipulating the baled crop material so that it will be moved to the disintegrator in such a manner that disintegration of the baled crop material is carried out primarily by the disintegrator.

In accordance with an aspect of this invention, the processor may be unidirectional, discharging the disintegrated crop material either to the left or to the right of the processor, or the processor may be bidirectional with a mechanism for allowing the operator to discharge from the left or the right. The direction of rotation of the flail roller will depend on the side of the processor that discharge is desired. The flail roller will rotate in the counter-clockwise direction for discharge to the left and in the clockwise direction for discharge to the right.

In accordance with another aspect of the invention, the support and manipulation mechanism includes at least two manipulator rollers rotatably mounted inside the container substantially parallel to the flail roller wherein at least one roller is located on each side of the flail roller to define a disintegration opening where crop material is accessed by the disintegrator....[Emphasis added]

(Patent, pp. 3 -4)

Detailed description is also provided about certain of the components of the machine being: the desired shape of the rollers, and the number, shape, and direction of “paddles” mounted on the rollers; the need for “a mechanism for connection between the processor flail roller and the a [sic] source of rotating power to assure that the flail roller rotates in the desired direction”; the desired shape of the side walls of the container with respect to the proximity of the paddles on the manipulator rollers, the need for a “number of hoops” mounted in a certain position along the container length, the description of “flails” mounted on the flail roller.

[18] The “Brief Description of the Drawings” section describes embodiments of the invention, and the “Detailed Description” section describes “the structure of the crop material processor, the operation of the crop material processor and the advantages of the crop material processor in accordance with the present invention in that order”. The “advantages” description comments on features of the invention that deal with the jamming problem including the configuration of the paddles, the rollers, the shape of the side walls, the ability of the invention to reverse direction, and the fact that the operator of the invention does not have to cut the twine that ties the crop material before loading but needs only to remove it from the flail roller. In addition, the following advantage is claimed:

A processor [shown in Fig. 11 and Fig. 12] which discharges the disintegrated baled crop material from the right of the processor [shown in Fig. 11 and Fig. 12] is particularly advantageous in that it allows the operator to more adequately and comfortably control the operation. Most tractors have their controls located on the right hand side of the tractor and so it is more natural and common for the operator to observe the operation of the farm equipment behind him by turning to the right. The bidirectional processor 1 (figures 11 and 12) provides the operator total versatility since it allows the

operator to discharge the disintegrated baled crop material in any way desired.

(Patent, p.17)

[19] The last statement in the disclosure is as follows:

Many modifications to the above described embodiments of the invention can be carried out without departing from the scope thereof, and therefore the scope of the present invention is intended to be limited only by the appended claims.

(Patent, p. 17)

B. The claims

[20] The claims are as follows:

1. A crop material processor for disintegrating baled crop material comprising:

a container for receiving and containing the crop material, the container having a bottom, a front wall, a back wall, a left side wall and a right side wall;

a disintegrator having a roller positioned along the length of the container mounted to rotate about its own longitudinal axis;

a manipulator mounted inside the container substantially parallel to the disintegrator;

a discharge opening at the bottom of the right side wall to discharge material from the right side of the processor; and

rotation conversion means having an input for connection to a rotating power source and an output connected to the disintegrator roller to provide a direction of rotation to the disintegrator roller opposite to the direction of rotation at the conversion means input.

2. A crop material processor as claimed in claim 1 wherein the disintegrator roller is adapted to rotate in a clockwise direction.
3. A crop material processor as claimed in claim 1, wherein the rotation conversion means comprises a first gear and a second gear positioned to drive one another, the first gear being mounted on a first rotatable shaft having an extended end forming the conversion means input and the second gear being mounted on a second rotatable shaft having an end for connection to the flail roller.
4. A crop material processor as claimed in claim 1, wherein the roller is a flail roller.
5. A crop material processor as claimed in claim 1, wherein the manipulator comprises at least two manipulator rollers rotatably mounted inside the container substantially parallel to the disintegrator roller, and wherein at least one roller is located on each side of the disintegrator roller to define a disintegration opening where crop material is accessed by the disintegrator.

(Patent, pp. 18 – 19)

C. The expert opinion

[21] Dr. Parish and Mr. Hanson express a difference of opinion on the qualifications of the ordinary person skilled in the art of the design and functioning of bale crop material processors.

[22] In Dr. Parish's opinion, the skilled person would have focussed academic qualifications:

I would describe the person of ordinary skill in the art to whom the '334 patent was addressed (hereafter "skilled person") to be a graduate engineer with a bachelor's degree in either agricultural or mechanical engineering, with at least one year's experience in the design of hay and forage equipment. This person would be familiar with commercially available bale processing equipment. I understand from counsel that this person would also be deemed to have knowledge of the prior art literature that would be available at the claim date by reason of a reasonably diligent search.

(Parish Report, para. 15)

However, in contrast, Mr. Hanson puts emphasis on practical experience:

In my view, the '334 Patent is addressed to someone with strong practical experience in agricultural machinery generally, as well as a sound understanding of the mechanical and structural aspects of such machinery. In other words, the '334 Patent is addressed to a broad range of people having a wide variety of practical experiences and/or varying levels of education.

A skilled addressee would also include someone who is employed to research, develop, manufacture, test, service and/or repair agricultural machinery generally, such as a welder, machinist or engineer. With respect to this latter skilled addressee, he/she may: (1) have formal training in relevant areas, such as a college or university degree in a mechanical-oriented program and at least a minimal amount (i.e., two years) of practical experience; or (2) have a body of knowledge concerning machinery from extensive years of practical experience.

In sum, a skilled person would generally understand how a bale processor and its various components work, as well as that such a processor is capable of forcefully and efficiently chopping or shredding material from a bale of hay, and rapidly discharging that material a relatively long distance.

(Hanson Report, paras. 35 - 37)

Dr. Parish responds as follows:

In paragraphs 35-37, Mr. Hanson defines a person of ordinary skill to include a machinist or welder, who might service or repair a bale processor. I think this sets the bar too low. This patent is directed to one who will design and build an improved bale processor or reconfigure an existing one. This would not be within the scope of the duties of an ordinary welder or machinist. They would no doubt be involved in implementing instructions, but one would expect an engineer to oversee and approve the work.

(Parish Second Report, para. 7)

1. Conclusion: The skilled person is the person Mr. Hanson describes.

[23] With respect to the Patent, in my opinion, the common general knowledge required of the skilled person is most closely that described by Mr. Hanson. While both Dr. Parish and Mr. Hanson agree that the skilled person must have farm equipment design and function expertise acquired by a combination of academic and practical training, I agree with Mr. Hanson's emphasis on knowledge of the practical day-by-day aspects of design implementation and equipment operation. The Patent is directed at a skilled person who knows the prior art history of farm equipment development generally, and bale processors specifically, but, most importantly, also has a practical understanding of the problems faced by farm equipment operators generally, and bale processor operators specifically.

V. What is the Purposive Construction of the Patent?

[24] In the present case, the construction of Claims 1, 2, and 4 is in issue. A comparison of the disclosure of the Patent to the claims has produced a difference of expert opinion as to the construction that would be found by the skilled person.

[25] The disclosure specifically describes the mechanical components of a certain design of bale processor, and identifies the features that will have the effect of reducing jamming of the machine in operation. One feature described is the advantage of right-hand discharge of the disintegrated bale material. However, Claim 1 claims a monopoly to a combination invention comprised of only generally described mechanical components of a generally described bale processor. As a result, in determining the purposive construction of the Patent, there is an issue as to whether the Patent meets

the standard set by Justice Binnie in *Whirlpool Corp. v. Camco Inc.*, [2000] 2 S.C.R. 1067 at para.

42:

The content of a patent specification is regulated by s. 34 of the Patent Act. The first part is a "disclosure" in which the patentee must describe the invention "with sufficiently complete and accurate details as will enable a workman, skilled in the art to which the invention relates, to construct or use that invention when the period of the monopoly has expired": *Consolboard Inc. v. MacMillan Bloedel (Sask.) Ltd.*, [1981] 1 S.C.R. 504, at p. 517. The disclosure is the quid provided by the inventor in exchange for the quo of a 17-year (now 20-year) monopoly on the exploitation of the invention. The monopoly is enforceable by an array of statutory and equitable remedies and it is therefore important for the public to know what is prohibited and where they may safely go while the patent is still in existence. The public notice function is performed by the claims that conclude the specification and must state "distinctly and in explicit terms the things or combinations that the applicant regards as new and in which he claims an exclusive property or privilege" (s. 34(2)). An inventor is not obliged to claim a monopoly on everything new, ingenious and useful disclosed in the specification. The usual rule is that what is not claimed is considered disclaimed.

[Emphasis added]

The primary question is: does Claim 1 state “distinctly and in explicit terms things or combination that the inventor regards as new”? The ancillary question which arises is whether, in determining the purposive construction of the Patent, and to meet the standard described by Justice Binnie in *Whirlpool*, would the ordinary person skilled in the art use the disclosure to provide an expanded interpretation of Claim 1 to answer the following questions: what is the distinct and explicit description of the “crop material processor for disintegrating baled crop material” that is new, and what is the distinct and explicit description of its named components that are new? The expert evidence is in sharp conflict on the answers to these questions.

A. Dr. Parish's opinion on construction

[26] Counsel for DuraTech argues that the “crop material processor for disintegrating baled crop material” named in Claim 1 is the same crop material processor described in the “Background” and “Summary of the Invention” sections of the disclosure. Dr. Parish supplies an expert opinion in support of this argument by looking to the disclosure:

A skilled person would know at this time that different types of baled crop material processors had been on the market and disclosed in the literature and patents. These would include processors that used rollers to support and rotate the bale, e.g. the Bale King; processors that used a chain conveyor type of apparatus, e.g., the Balebuster; and processors that used a rotating tub, e.g. the Hesston BP processors. On its face, the term "crop material processor" could embrace any of these processors, but it would make no sense to give it that meaning in the context of this patent.

This patent is clearly all about a "crop material processor" of the type that uses rollers to support and rotate the bale. The inventor has repeatedly stated that the processor which is the subject of the patent has "manipulation rollers" and more specifically that the disintegrator is located between two of these rollers. There is no suggestion that he intended other types of bale processors to be within the scope of this patent.

The phrase "*crop material processor for disintegrating baled crop material*" used in Claim 1 would be understood by a skilled reader to mean the type of "baled crop material processor" spoken of in the patent disclosure, for example as described on page1 at lines 17-23 [A baled crop material processor basically comprises a container for receiving the bales, a disintegrator often in the form of a roller with cutters or flails for chopping or shredding the material from the bale, a mechanism including manipulator rollers to direct the bale to the disintegrator and a discharge slot such that the crop material is discharged from the bail processor. Any number of manipulator rollers are possible, however, the disintegrator is located between and below two of the manipulator rollers]. [Emphasis added]

(Parish Report, paras. 63 - 65)

[27] Based on this opinion, Dr. Parish goes on to give an opinion on the construction of the other terms used in Claim 1 as follows:

a container for receiving and containing the crop material, the container having a bottom, a front wall, a back wall, a left side wall and a right side wall

This element of the claim would have been understood to mean that a receptacle with four (4) walls and a bottom is mounted to the frame of the bale processor. The container "receives" the bale, and "contains" the bale as it is disintegrated into fragments. The four walls would be big enough to hold the bale and high enough to restrain the bale and stop it from falling out or bouncing out of the machine while it is being processed, but the walls wouldn't necessarily have to be higher than the bale. The bottom would be a surface of the container underneath the disintegrator that receives and guides the shredded material to a discharge opening.

a disintegrator having a roller positioned along the length of the container mounted to rotate about its own longitudinal axis

This claim element would have been understood to refer to a disintegration rotor mounted with its axis of rotation parallel to the direction of travel of the machine so that the disintegrated material is discharged to the side of the machine.

a manipulator mounted inside the container substantially parallel to the disintegrator

To a skilled person in the field of agricultural equipment, who had not read this patent, the term "manipulator" would probably mean either a robot arm or a similar mechanical linkage intended to move in discrete fashion in a specific path or paths in response to operator input [footnote omitted]. If one were to mention the "manipulator" of a bale processor, a skilled person would probably think of the hydraulic forks used to pick up a bale from the ground to place it in the container.

Read in the context of this patent, however, it would be clear to a skilled person that the inventor intended the term "manipulator" to mean the elements that he called "manipulator rollers", which support and move the bale to the disintegrator. These rollers are the elements, which gave rise to the "major problem" of jamming and to which the inventor directed much of his attention.

The fact that the claim says that the "*manipulator is mounted inside the container substantially parallel to the disintegrator*" also implies that the claim is speaking of a long roller type element aligned with the flail roller of the disintegrator so that they are equidistant from each other along their respective lengths.

While interpreting the meaning of "*manipulator*" in Claim 1, I have not overlooked the fact that Claim 5, which is dependent on Claim 1, claims a bale processor with "*at least two manipulator rollers rotatably mounted inside the container substantially parallel to the disintegrator roller, and wherein at least one roller is located on each side of the disintegrator roller to define a disintegration opening where crop material is accessed by the disintegrator.*" I have been advised by counsel that a dependent claim usually narrows the scope of the claim from which it depends.

In comparing Claim 5 and the "*manipulator*" of Claim 1, I observe the following differences.

(a) The term "manipulator" in Claim 1 could, absent the context of the patent, mean a single roller whereas Claim 5 has at least two rollers.

(b) Claim 1 does not specify that the manipulator is "rotatably" mounted in the container as Claim 5 does. This could mean that Claim 1 covers a manipulator that does not rotate.

(c) Claim 1 does not specify that the "*manipulator*" would "*define a disintegration opening*" as specified in Claim 5.

However, in my opinion, it is not plausible that a skilled person having read the patent would think that the inventor intended Claim 1 to cover a single roller, or a roller that did not rotate. The only plausible construction of Claim 1 is that he intended to claim at least two rollers: one on each side of the disintegrator. Therefore, the only plausible difference between Claim 1 and Claim 5 is the additional specification that the rollers "*define a disintegration opening*" in Claim 5. I can imagine that, even though there might be a roller on each side of the disintegrator, the opening to the disintegrator might be defined by some additional or other means. For example the container walls and the hoops could be formed to make a channel or chute that would define the disintegration opening rather than the rollers. Accordingly, Claim 5 would be narrower than Claim 1.

In my opinion, if the term "manipulator" were not restricted to rollers with at least one roller on each side of the disintegrator, then Claim 1 and its dependent claims would be broader in scope than what has been disclosed in the patent.

a discharge opening at the bottom of the right side wall to discharge material from the right side of the processor

In my opinion, this term would have been understood to mean an opening at the bottom of the right hand side wall of the container to allow the disintegrator to blow the disintegrated material out of the machine to the right of the operator when facing forward.

rotation conversion means having an input for connection to a rotating power source and an output connected to the disintegrator roller to provide a direction of rotation to the disintegrator roller opposite to the direction of rotation at the conversion means input

This term would have been understood to mean that a gearbox or other conventional reversing mechanism to reverse the direction of rotation of the disintegration roller as compared to the PTO (or other source of rotation power) included in the driveline of the bale processor, so as to make the disintegrated crop material discharge to the right of the operator when facing forward. [Emphasis in the original]

(Parish Report, paras. 66 – 76)

B. Mr. Hanson's opinion on construction

[28] As does Dr. Parish, Mr. Hanson approaches the issue of construction by looking to the disclosure, but, unlike the broad view taken by Dr. Parish, Mr. Hanson takes a very narrow view as described in the following passage from his opinion:

The '334 Patent discusses a number of features and advantages relating to the particular crop material processor it discloses. For example, the disclosure of the '334 Patent addresses, among other things, the problem of jamming in a crop material processor, and the need to keep such jamming to a minimum. However, notwithstanding the discussion related to jamming in the disclosure,

one must specifically look to the claims of the '334 Patent in order to determine what the inventor intended as being his claimed invention.

In this regard, the problems that the invention teaches and overcomes in the '334 Patent are the problems associated with the left-hand discharge nature of bale processors....

[...]

Thus, the invention claimed in the '334 Patent is directed to operator comfort, convenience and ease of use....[Emphasis added]

(Hanson Report, paras. 40, 41, and 44)

As a result, Mr. Hanson gives the following opinion respecting the “bale crop material processor for disintegrating baled crop material” named in Claim 1:

One skilled in the art, as is defined above, would understand what a crop material processor is. Such a person would know that a crop material processor relates to a device generally intended for dealing with bales of fibrous crop material.

More particularly, and as suggested by the phrase “for disintegrating baled crop material”, such a processor would be understood to be configured in a manner that tears apart or chops up such crop material, and distributes it in some fashion.

Such construction of the phrase “crop material processor” is supported by the '334 Patent disclosure, which states:

A machine to disintegrate bales of crop material is sometimes known as a baled crop material processor... A baled crop material processor basically comprises a container for receiving the bales, a disintegrator often in the form of a roller with cutters or flails for chopping or shredding the material from the bale, a mechanism including manipulator rollers to direct the bale to the disintegrator and a discharge slot such that the crop material is discharged from the bail processor. [Patent, p. 1, lines 15 – 21] ...

The crop material 12 may be any type of hay, straw or other forage that can be used as feed or bedding for animals. [Patent, p. 7, lines 13 – 14]

The skilled person would understand that having a crop material processor capable of disintegrating a bale of hay or other crop material would be an essential element of the invention in claim 1 of the '334 Patent.

(Hanson Report, paras. 51 – 54)

1. Conclusion: The terms used in Claim 1 are to be given an expanded meaning.

[29] With respect to the expert evidence, I give weight to Dr. Parish's opinion because it provides a result which fairly and honestly satisfies the standard set by Justice Binnie in *Whirlpool*, and it meets the requirement that, in concluding on the construction of a patent, the full context of the patent must be considered. However, because Mr. Hanson's opinion is not based on a consideration of the whole of the disclosure, I give it no weight.

[30] The topic of claim differentiation requires a comment. Counsel for Bridgeview argues that, the presumption against claim redundancy, being that the patentee would not intend to frame the same claim twice, results in the conclusion that the patentee's intention as disclosed in the Patent is to have a broader Claim 1 and a narrower Claim 5. This argument is advanced in support of Mr. Hanson's construction and against Dr. Parish's construction. In response, I find that Dr. Parish's opinion conforms to the presumption by providing a fair and reasonable interpretation of the claims considered together. As a result, I give the argument no weight.

[31] As a result, I find that the skilled person would use the disclosure to provide an expanded interpretation of Claim 1. Therefore, considering the disclosure, and considering Dr. Parish's expert evidence, I find that there are six essential elements of the invention claimed in the Patent. The following description of these elements includes the terms used in Claim 1 as underlined, together with references to the disclosure in the Patent and Dr. Parish's evidence as required:

1. A baled crop material processor for disintegrating baled crop material, comprising a container for receiving the bales, a disintegrator often in the form of a roller with cutters or flails for chopping or shredding the material from the bale, a mechanism including manipulator rollers to direct the bale to the disintegrator and a discharge slot such that the crop material is discharged from the bail processor. Any number of manipulator rollers are possible, however, the disintegrator is located between and below two of the manipulator rollers (Disclosure, p. 1, lines 17 – 23) and comprising:

a container for receiving and containing the crop material, the container having a bottom, a front wall, a back wall, a left side wall and a right side wall, with the bottom being a surface of the container underneath the disintegrator that receives and guides the shredded material to a discharge opening (Parish Report, para. 66, Disclosure, Fig. 1, 108);

a disintegrator mounted inside the container (Disclosure, p. 7. line 20) having a roller positioned normally (Patent, p. 7, line 22) along the entire length of the container mounted to rotate about its own longitudinal axis with the disintegration rotor mounted with its axis of rotation parallel to the direction of travel of the baled crop material processor so that the disintegrated material is discharged to the side of the machine (Parish Report, para. 66);

a manipulator mounted inside the container substantially parallel to the disintegrator comprised of at least two rollers (Disclosure, p. 1, lines 21 – 23) rotatably mounted (Parish Report, para. 73)

with one on each side of the disintegrator (Parish Report, para. 73) and each located above the disintegrator (Disclosure, p. 1, lines 22 – 23);

a discharge opening at the bottom of the right side wall of the container (Parish Vol. 1, para. 75) to discharge material from the right side of the processor when facing forward (Parish Report, para. 75) along the bottom of the container (Disclosure, p. 8, line 15, Fig. 1, 108; and Parish Second Report, paras. 19 and 32); and

rotation conversion means having an input for connection to a rotating power source and an output connected to the disintegrator roller to provide a direction of rotation to the disintegrator roller opposite to the direction of rotation at the conversion means input.

VI. The Allegation of Infringement

[32] The present task is to determine whether DuraTech's Balebuster offends the Patent. Counsel for DuraTech argues that the Balebuster uses two different components than those protected by Claim 1 of the Patent. The argument requires a comparison of those components to the Patent as constructed above.

[33] During the course of the trial, a schematic diagram of the Balebuster was used to describe its components and to compare its components to the claims in the Patent. The actual diagram is Exhibit 6 in the trial, but, by consent of Counsel, it is replicated here as Appendix B to these reasons.

A. Does the Balebuster “manipulator” infringe the Patent?

[34] Specifically the question is:

Does the Balebuster use a manipulator mounted inside the container substantially parallel to the disintegrator comprised of at least two rollers rotatably mounted with one on each side of the disintegrator and each located above the disintegrator?

[35] DuraTech argues that, because the Balebuster’s manipulator is a conveyor which is a wholly different device than the claimed manipulator, and, as such, is not a variant of the claimed manipulator, it does not infringe the Patent.

[36] In his Report, Dr. Parish describes three types of manipulators: Support Rollers, Rotating Tub, and the Traveling Table, the latter being the type he says is used in the Balebuster:

One type of mechanism is called a traveling table. In this mechanism an inclined chain conveyor supports the bale and feeds it into the flail rotor, which is positioned below a series of slug bars to one side of the conveyor. With this concept, the bale axis is generally horizontal and the bale is rotated about that axis. This type of mechanism is shown in Canadian Patent No. 1,186,598 (the '598 patent) issued on May 7, 1985 and United States Patent No. 4,449,672 (the '672 patent) issued on May 22, 1984. Both of these patents were issued to Haybuster Manufacturing, Inc., a predecessor to DuraTech, and are referred to herein as the "Haybuster Patents."

[...]

This traveling table design is used by DuraTech on the allegedly infringing Balebuster 2650 and Balebuster 2800 machines.

(Parish Report, para. 26; para 28)

Dr. Parish identifies the Support Roller type as that described in the Patent (see Parish Report, paras. 31 – 35).

[37] Nevertheless, Mr. Hanson’s opinion is that the difference does not matter:

The skilled person would understand what a “manipulator” is as referred to in claim 1. In this regard, such a skilled person would immediately take note of the inventor’s deliberate intention to broadly claim any device that accomplishes the purpose of this element of the invention, namely, to manipulate a bale of crop material. Such a manipulator is understood to re-orient (i.e., rotate and re-position) a bale of crop material towards the disintegrator for engaging and disintegrating all portions of the bale. There is an interaction of rotating parts, i.e., an interaction between a rotating disintegrator roller and a rotating bale that is rotated by a manipulator. [Emphasis added]

The inventor’s intent in claim 1 was not to claim a specific manipulating device with specific structural characteristics. As of April 2000, a skilled person would know of many different means and configurations for manipulating bales of hay in bale processors, each of which perform substantially the same function, in substantially the same way and achieve substantially the same result. The broad intent of claim 1 can be differentiated with the inventor’s particular intent in claim 5, which was to claim specific manipulator structure, namely, a manipulator that “comprises at least two manipulator rollers rotatably mounted inside the container substantially parallel to the disintegrator roller, and wherein one roller is located on each side of the disintegrator roller to define a disintegration opening where crop material is accessed by the disintegrator. [Emphasis added]

(Hanson Report, paras. 73 -74)

[38] In response, Dr. Parish, whose opinion depends on the full context of the Patent, has this further opinion to offer:

I disagree with Mr. Hanson's opinion in paragraph 73 that a skilled person

...would immediately take note of the inventor's deliberate intention to broadly claim any device that accomplishes the purpose of this element of the invention...to re-orient (i.e. rotate and re-position) a bale of crop material towards the disintegrator for engaging and disintegrating all portions of the bale. [Emphasis added]

A skilled person could only discern the inventor's intention to rotate the bale, as Mr. Hanson says, from the description of manipulation rollers and their operation. Mr. Hanson seems to admit this for he continues:

There is an interaction of rotating parts, i.e. an interaction between a rotating disintegrator roller and a rotating bale that is rotated by a manipulator.

The skilled person having read the patent would not see in Claim 1 an intention to claim "any device" but rather would understand that the inventor was speaking of a "manipulator" roller mechanism similar to that described. The inventor never speaks of anything else. [Emphasis added]

I would agree with Mr. Hanson in his paragraph 74 that the inventor did not intend to claim "a manipulating device with specific structural characteristics". The inventor said on page 1: "Any number of manipulator rollers are possible..." showing that the number and configuration of the rollers was an intended variable. However, Mr. Hanson goes too far to say that the "manipulator" of Claim 1 is "any device". There is no suggestion in the patent disclosure of such breadth and, as I have discussed in my earlier report, the terms "crop material processor" and "parallel" in Claim 1 also inform the meaning of "manipulator". [Emphasis added]

(Parish Second Report, paras. 22 – 24)

Dr. Parish also offers the opinion that the “manipulator” used in the Balebuster is not a variant of the manipulator claimed in the Patent:

Mr. Hanson opines in paragraph 74:

a skilled person would know of many different means and configurations for manipulating bales of hay in bale processors, each of which perform the same function in substantially the same way and achieve substantially the same result.

I agree that a skilled person would know of the prior art bale processors sold for use in the field and/or disclosed in the patent literature. I agree that a skilled person would understand that a bale processor would have a device whose function would be to support and feed the bale into the disintegrator. But contrary to Mr. Hanson's opinion, a skilled person would know of different devices, functioning in substantially different ways and with often substantially different efficacy in obtaining the desired result.

Known bale processors included the tilt-tub type, the slat-conveyor type, the rocking cradle type and various roller mechanism types. Each type functioned to support and feed a bale to a disintegrator, but each did so in substantially different ways with different efficacy.

Even within the scope of a particular type of mechanism, such as rollers, there are many patents describing different ways rollers can be used with various configurations relative to each other, to the disintegrator, or to the container walls. For example, the present patent promises a substantially better result than prior art roller mechanisms because it overcomes the major problem of jamming around the rollers.

Mr. Hanson provided no factual basis for his statement that the different known means for moving bales to a disintegrator "would perform substantially the same function, in substantially the same way and achieve substantially the same result." From this premise, Mr. Hanson concludes that a skilled person would immediately infer an intent "...to broadly claim any device that accomplishes the purpose of this element...". I disagree with Mr. Hanson's premise and his conclusion. In my opinion, knowing the differences in the prior art devices and reading this patent, a skilled person would conclude that the inventor intended to claim an improvement to the type of bale processor that he described on page 1 [of the Patent]. [Italics in the original] [Underlined emphasis added]

(Parish Second Report, paras. 25 – 28)

[39] It appears that during the course of this testimony at trial, Mr. Hanson changed his opinion to conform to that of Dr. Parish. Counsel for DuraTech's argument on this point is as follows:

Mr. Hanson conceded in cross examination the error of paragraph 74 of his first report that a skilled person would think that all manipulating means performed substantially the same function, in substantially the same way and achieved substantially the same result...:

- 11 Q Would you agree with me that what this is
12 teaching part in the art are there are different
13 types of manipulating mechanisms and each of
14 them have their functional attributes and
15 problems?
16 A I couldn't disagree with that.
17 Q They don't have substantially the same function,
18 except in the most general sense, they don't
19 function in substantially the same way, and they
20 don't obtain substantially the same result?
21 A They're not variants of each other in that way
necessarily. [Emphasis added]

This is a significant admission. Claim construction includes deciding whether a variant form is within a claim (*Free World Trust*). Since manipulator rollers are within Claim 1 and other mechanisms like the *Balebuster* conveyor are not substantially similar variants of the rollers, they are not to be considered to be within the claim in the absence of clear language showing the inventor's intention to do so. The patentee has the onus of proof. [Emphasis added]

(Defendants' Closing Argument, para.36 – 37, quoting from Hanson Cross-Examination Transcript, December 3, 2008, p. 690)

1. Conclusion: The Balebuster “manipulator” does not infringe the Patent.

[40] Because Mr. Hanson’s opinion concerning the manipulator depends on his narrow view of the disclosure, I do not give it weight. I give weight to Dr. Parish’s opinion because his evidence is consistent and exhibits a fully contextual view of the Patent.

[41] As a result, I accept DuraTech’s argument that the Balebuster’s conveyor is not a variant of the claimed manipulator, and, because it is a different type of manipulator than that claimed in the Patent, I find it does not infringe the Patent.

C. Does the Balebuster discharge system infringe the Patent?

[42] Specifically, the question is:

Does the Balebuster use a discharge opening at the bottom of the right side wall of the container to discharge material from the right side of the processor when facing forward along the bottom of the container?

[43] The discharge opening claimed in the Patent is discernable by two characteristics: it is at the bottom of the right side wall of the container; and the material discharge is along the bottom of the container. Therefore, first, it is necessary to identify the bottom of the Balebuster container, and second, to determine whether the crop material is discharged along this feature of the machine.

[44] Mr. Hanson identifies the bottom of the Balebuster container as the circular feature surrounding the flail roller, depicted in green in Exhibit 6 (Hanson Report, para. 108) and gives the following as his rationale:

As per [Exhibit 6] the bottom on the 2650 Balebuster is situated at a lower portion of the bale processor and below the disintegrator roller, which enables it to catch and guide the flow of materials for discharge.

(Hanson Report, para. 109)

In sharp contrast, Dr. Parish in the following description of the machine identifies the bottom of the Balebuster as the purple plate directly below the conveyor:

The following components are supported on the frame:

- a. a front partial height solid wall with an expanded metal screen above, (not shown)
- b. a right inwardly concave side wall,
- c. a left inwardly concave side wall,
- d. a low partial height rear wall with a hydraulic fork mounted just behind it for lifting a bale onto the machine (when the forks are elevated they fence off the rear above the partial wall),
- e. a slat-conveyor mounted around a plate that extends across most of the width between the left and right side walls so as to move over the plate (from right to left) and under the plate (from left to right) when hydraulically driven by sprockets on shafts at the right and left sides of the plate,
- f. a container bottom plate positioned under the slat-conveyor that closes the bottom of the container: joining the bottom of the front and rear partial height walls and the right side wall but stopping just before the left side wall to define an opening to the disintegrator.
- g. an offset disintegrator flail roller mounted to rotate under the left side wall just outside the container but close enough to allow the flails to swing through the opening between the container bottom and the left side wall to contact a bale within the container,
- h. slug bars angled between the container bottom plate and the left side wall over the opening to the disintegrator flail roller,

i. a curved metal plate, or shroud, outside the container under the left wall, being curved about the disintegrator flail roller,

j. a discharge opening (in the shroud) to eject shredded material under the bottom plate and out the right side of the processor, and

k. a chain case and transmission mechanism that connects the PTO of the tractor to the offset disintegrator flail roller, speeds up the rotation of the roller as compared to the PTO, and reverses the rotation of the disintegrator flail roller relative to the PTO (not shown). [Emphasis added]

(Parish Second Report, para. 45)

[45] Dr. Parish makes the following comment with respect to Mr. Hanson's opinion:

The 2650 and 2800 machines are different from the claim here. Read in the context of the patent the words "*...at the bottom of the right side wall...*" mean at the bottom within the container. Mr. Hanson refers to the patent in this regard in his paragraph 82 [the discharge opening 40 is formed by wall 104, the bottom 108 and the end walls 100 and 102 such that the flails 18 on the flail roller 16 drive the shredded crop material along the bottom 108 to discharge it from the processor (Disclosure, p. 8, lines 24 – 27)] — the discharge is supposed to slide across the bottom within the container to the right wall opening. In the 2650 and 2800 processors, the discharge does not exit from within the container through [sic] an opening at the bottom of the right side wall, but rather from a discharge opening in the shroud covering the flail under the left side wall and beneath the bottom of the container. The discharged crop material does not slide over the bottom within the container to a right wall opening, but rather discharges from the flail shroud located under the left wall, and flies over the frame underneath the bottom wall of the container and out the right side of the processor.

In my opinion, a skilled person would understand that there is a substantial difference in the way that the 2650 and 2800 machines discharge the shredded crop material from that which is claimed.

(Parish Second Report, paras. 60 and 61)

1. Conclusion: The Balebuster discharge system does not infringe the Patent.

[46] In my opinion, Mr. Hanson's opinion is forced as it does not take into consideration obvious features of the Balebuster. The purpose of the container claimed in the Patent is to receive and contain a bale placed into it for disintegration. In my opinion, Exhibit 6 establishes that the Balebuster disintegrator, and the shroud which surrounds it, are not involved in receiving and containing a bale. This is the case because the slug bars, which are identified by Dr. Parish as feature (h), are over the opening to the disintegrator and its shroud and make it impossible for these components to have any part in receiving and containing a bale. Therefore, neither element can be said to be part of the container. On this basis, I agree with Dr. Parish's opinion that the bottom of the container is the plate below the conveyor coloured purple in Exhibit 6, and the void into which the Balebuster discharges is under the bottom plate.

[47] As a result, I also agree with Dr. Parish that there is a substantial difference in the way that the Balebuster discharges the shredded crop material from that which is claimed in the Patent.

VIII. Is the Patent Invalid for Obviousness?

[48] As set out in Appendix A, the classic test for patent validity is that stated by the Federal Court of Appeal in Justice Hugessen's decision in *Beloit*. A refinement to *Beloit* has been recently stated by the Supreme Court of Canada in Justice Rothstein's decision in *Sanofi* by providing an approach to determining obviousness through identifying the "novel concept" of the invention claimed, and considering steps in the development of the invention that would have been "obvious to try" in light of the state of the art.

[49] I accept Counsel for Bridgeview’s argument that the concept of “obvious to try” is not in play in the present case because it lends itself to a situation where advances are won by experimentation, and the novel concept of the invention claimed in the Patent was not developed in this way.

A. What is the novel concept in the present case?

[50] The primary features of the test suggested by Justice Rothstein is the determination of the novel concept of the invention claimed in the Patent, and its comparison to the prior art. Based on Mr. Hanson’s opinion, Counsel for Bridgeview advances the argument that the novel concept of the Patent is the “recognition of an advantage in most cases of a right-hand discharge in a modern style bale processor using a gearbox” (Plaintiffs’ Closing Argument, para. 217) [Emphasis added]. On the evidence, I am prepared to accept this argument, but with one proviso.

[51] In the preceding paragraph I have placed emphasis on Counsel for Bridgeview’s limit on the novel concept proposed because, as will be seen below, in 1985 the Hesston BP20 was introduced to the bale processor marketplace; the machine is a “tilt-tub” bale processor with a right-hand discharge and a two-gear gearbox to reverse the direction of the power take off shaft prior to driving the disintegrator rotor. It is this bale processor that Dr. Parish identifies as prior art (Parish Report, paras. 80 – 86). The point being made by the proposed limit on the novel concept is that, while the BP20 was manufactured with the two criteria specified in the proposed novel concept, it should be excluded from consideration as prior art on the basis of the following argument:

The Plaintiffs first note that the *Sanofi* case did not consider a combination invention. An analysis that breaks down the

components of a combination [of] elements into its inherently known individual parts is not fair to the patentee or the process. In *Shell Oil* [*Shell Oil Co. v. Commissioner of Patents* (1982), 67 C.P.R. (2d) 1 at 9 - 11 (S.C.C.)] the Supreme Court held:

A novel combination of elements, old or new, is patentable. In a combination patent, the inventiveness lies in the combination itself, and not necessarily in its constituent elements. Therefore, when analysing inventiveness, the combination must be looked at as a whole; it is improper to break the invention down into its constituent elements in an obviousness analysis.

Accordingly, the invention in the '334 patent should be looked at as a whole. The inventive concept, as noted above, is the recognition of an advantage in most cases of a right hand discharge in a modern style bale processor using a gearbox (Trial Exhibit 62 (Expert Statement of Craig Hanson), paras. 39-44; Trial Transcript Day 7 (Cross examination of Mr. Hanson), pp. 1303-1304).

In contrast, the BP20 included right hand discharge with a gearbox in a different structural package. [Emphasis added]

(Plaintiffs' Closing Argument, paras. 216 – 218)

[52] I do not accept the limit imposed on the inventive concept because, on the evidence, there is no principled basis for doing so. While the Patent claims protection to a combination invention, I find that the essence of the inventive concept claimed for the combination, and which is to be compared to the prior art is, “recognition of an advantage in most cases of a right-hand discharge in a bale processor using a gearbox”. That is, “modern” or not in terms of its structural package, the prior art search of bale processors is for the essence of the inventive concept in a bale processor package, regardless of the package itself.

1. Conclusion: The novel concept is recognition of an advantage in most cases of a right-hand discharge in a bale processor using a gearbox.

[53] Therefore, I find that the question is: on the claim date, in light of the state of the art and the common general knowledge of discharge systems on farm equipment generally, and bale processors specifically, would the skilled person consider recognition of an advantage in most cases of a right-hand discharge in a bale processor using a gearbox to be novel?

B. The common general knowledge and the state of the art

[54] Left-hand bale processors pulled behind a tractor are powered directly by the tractor's power take off. The power take off on most tractors turns in a counter-clockwise direction which causes the processor's bale disintegrator to rotate in a counter-clockwise direction, which, in turn, results in the disintegrated bale material to be discharged from the processor to the left as seen by the driver facing forward. There is no dispute that the person skilled in the art would know that a reversing gear box is needed to change the rotation of the disintegrator from counter-clockwise to clockwise, and, thus, change the direction of discharge from left to right (Parish Report, para. 85). There is also no dispute that the skilled person would know that tractors have evolved over the years from open seats with central controls to enclosed cabs with controls on the right, and, therefore, it is more natural and common for an operator to look over his or her right shoulder to view the operation of many types of pulled equipment (Parish Report, para. 60). Finally, there is no dispute that it is inconvenient for the operator of a bale processor to view the discharge from the machine if the discharge is from the left-hand side because it requires the operator to turn far to the right or to the left to view the discharge.

[55] To prove that the novel concept argued by Bridgeview is not novel, Dr. Parish advances the hypothesis that a trend in the common general knowledge from left-hand to right-hand operation had developed with certain types of farm equipment, such as pull-type combines, corn pickers, forage harvesters, and hay balers, and the skilled person would know that a motivation existed to design and build a right-hand discharge bale processor (Parish Report, paras. 87 – 97). By extension, in Dr. Parish's opinion, this fact supports the conclusion that the skilled person would have recognized the advantage of right-hand discharge. However, Mr. Hanson disputes Dr. Parish's trend and motivation hypothesis by arguing that, on the claim date, there was no trend to right-hand discharge or operation that is universal for all types of farm equipment (Hanson Second Report, para. 55) because many machines are built a certain way based on function and necessity (Hanson Second Report, para. 58), and because of the direction of rotation of a tractor's power take off the skilled person would consider it counterintuitive to build a right-hand bale processor (Hanson Second Report, para. 59).

[56] In my opinion, Mr. Hanson's objection misses what I find to be Dr. Parish's main point: the fact that right-hand operation has become a more accepted choice in deciding between left or right-hand operation of farm equipment would direct the skilled person's mind to right-hand operation if presented with a challenge to solve the inconvenience problem with operation of a left-hand bale processor. I find that, given this context of change in the direction of operation of farm equipment from left to right, the skilled person would easily come to the recognition that the solution to the problem presented lies in changing the discharge direction from left to right. Indeed, to prove the

point, Dr. Parish focuses on one bale processor which was built with a right-hand discharge some 14 years before the Patent claim date: the Hesston BP20.

C. Was the Hesston BP20 prior art on the claim date?

[57] The Hesston BP20 is a “tilt-tub” bale processor that was manufactured and sold by the Hesston Corporation in 1985 and 1986; the machine was also marketed as the John Deere 840. The BP20 is a right-hand discharge bale processor that uses a two-gear gearbox to reverse the direction of the tractor’s power take off shaft prior to driving the disintegrator rotor. With respect to the development of the Hesston BP20, a detailed description was given in evidence on behalf of DuraTech by Mr. Davis who is the Engineering Product Manager of AGCO Corporation of Hesston, Kansas which now owns the Hesston Corporation. Mr. Davis joined Hesston in 1975 as an agricultural engineer and was involved in the development of BP20, and its successor, the left-hand discharge BP25.

[58] The development of the BP20 began by Hesston entering into an agreement with Mr. Deway Marcy, an inventor in Colorado, who had a patented concept and prototype of a left-hand discharge tilt-tub round bale processor. Hesston determined that for better performance of the prototype the speed of the rotor needed to be increased was more effective and more efficient in removing the hay from the bale and delivering it out the discharge chute on the machine. Therefore, since the rotor only turned at 540 rpm off the power take off of the tractor, a gearbox was added to the machine. Since the input and output shaft of the gearbox turned in opposite directions, not only was the speed of the rotor increased, but the machine was converted to right-hand discharge.

[59] With respect to the conversion, Mr. Davis' testified that:

And in our opinion, it was desirable to feed out the right-hand side because the controls for the tractor, the hydraulics and other controls are on the right-hand side of the tractor, and most hay equipment operated from the right-hand side, so it was natural for the farmer, the operator, to look out over his right-hand shoulder when he needed to observe things that were happening on the machine as opposed to using his right hand and having to look over his left shoulder.

(Davis Transcript, p. 23)

[60] The BP20 was sold through dealers to retail customers: in 1985, 456 machines were sold as Hesston machines and 52 were sold under the John Deere label; and in 1986, 350 were produced as Hesston machines, and approximately 82 were built as John Deere (Davis Transcript, pp. 37 – 39).

[61] In 1987, the BP20 was discontinued. Mr. Davis gave the following evidence with respect to the change from the right-hand discharge BP20 to the left-hand discharge BP25:

Q. Okay. Let's move to the change from the BP20 to the BP25. Do you know what the factors were that led to this change?

A. Yes. The -- even though we speeded up the rotor, the machine took more power than was originally anticipated. The machine, as I said earlier, was designed for use with the 540 revolutions per minute tractor. The standards in the tractor industry and the ag equipment industry are both for 540 RPM and 1,000 RPM. And we desired, we felt the machine would work even better at a higher speed. And so it was decided that rather than operating on a 540 RPM tractor, increasing the speed to 810 for the rotor, that we would simply operate on 1,000 RPM PTO drives, tractors, and drive the rotor straight through for 1,000 RPM speed. And at the same time, there was a desire to reduce the cost of the machine. At that point in time, cattle producers were

struggling, beef prices were low. And so it was desirable to reduce the cost of the machine as well.

Q. How did you reduce the cost?

A. By designing the machine for use on a 1,000 RPM tractor, we could eliminate the gearbox, and that would cause us, of course, to deliver out left side rather than the right side because the rotation was the clockwise rotation as viewed from the rear.

(Davis Transcript, pp. 40 – 41)

[62] In 2002, the BP25 was discontinued for the following reasons:

At that point in time there were other machines that had been introduced on the market that performed a similar function, and by that time a number of those machines, some of those machines included the capability to take more than one bale at a time. And that made the BP25, at that point in time, somewhat outdated. It would have taken a very costly engineering program to redesign the machine to make it more competitive with other machines in the marketplace. And the decision was made to not spend those engineering resources on this machine, and rather to drop it and to exit that portion of the market.

(Davis Transcript, p. 49)

[63] Under cross-examination by Counsel for Bridgeview, Mr. Davis gave the following evidence:

Q. And increasing the speed, I take it, was the reason for the gearbox, correct?

A. Yes.

Q. And it's fair to say that the right-hand discharge aspect was really collateral to the purpose of the gearbox, right?

A. The right-hand discharge was seen as an improvement to the machine, as I explained, because it was more common and we felt

more easier for the operator to look over his right-hand shoulder and more awkward to look over his left-hand shoulder.

Q. That's what you explained earlier, sir, but then you went on to say that you stopped production of the right-hand discharge machine, correct?

A. Yes.

Q. After only two years of production, right?

A. That's right.

Q. In fact, you saw and Hesston saw the gearbox as a detriment to Hesston because of the increased cost, right?

A. That was one of the factors.

Q. So it's fair to say the right-hand discharge aspect was collateral to the purpose of the gearbox, which was essentially to speed up the rotation?

A. That's correct.

Q. And you stopped building, I think you said, in -- stopped building the right-hand discharge BP20 in 1987?

A. In 1986.

Q. 1986, correct. After only two years of production?

A. Correct.

Q. And I believe you said as soon as Hesston improved the design to work with a 1,000 RPM PTO, you stopped making the gearbox and stopped making the right-hand discharge, correct?

A. Correct.

Q. And you went on to the left-hand discharge BP25?

A. Yes.

Q. Okay. I take it that Hesston could have continued to sell a right-hand discharge machine?

A. We could have.

Q. Okay. But you chose not to?

A. Yes.

(Davis Transcript, pp. 52-55)

[64] Thus, it appears from the evidence that the BP20 was just a little ahead of its time as a right-hand discharge bale processor. While the machine met the need for a faster rotating drive and right-hand discharge through the use of power take off rotation changing means, it did not stimulate operator demand because at the time it proved to be too expensive to purchase. Consequently, the BP20 was discontinued and was replaced by the BP25 which is, yet another, left-hand discharge machine.

[65] Bridgeview argues that there are a number of reasons to downgrade the existence of the BP20 to irrelevance. With respect to Mr. Davis's evidence, Counsel for Bridgeview argues that the BP20, with its right-hand discharge and gearbox, is in a different structural package than a modern bale processor. Moreover, as the argument goes: the objective facts around the BP20 would not have disclosed to the skilled person that there was an advantage or benefit to be gained by right-hand discharge; and to the contrary, the objective facts taught the skilled person that the BP20 was not an effective machine and that right-hand discharge was a feature to be dropped, to the extent it was considered a "feature" at all (Bridgeview's Closing Argument, para.218). In addition, the following argument is made on the basis of Mr. Hanson's evidence:

Additionally, Mr. Hanson set out a number of significant technical differences that rendered the BP20 obsolete, especially when compared to the other Haybuster and Bridgeview-style machines known as of April 1999, and that would cause a skilled person to pay no attention to the BP20. Examples include the following:

- a. The bale in the BP20 is rotated by the entire round tub container, which is very different than being rotated by a supporting mechanism or structure (i.e., a discrete manipulator) located below the bale;
- b. The bale in the BP20 has a vertical axis of rotation, not horizontal;
- c. The BP20 is only capable of disintegrating large round bales of hay, not frozen, misshapen or square bales;
- d. The BP20 is only capable of holding one bale;
- e. The disintegrator rotor on a BP20 was short and only engaged a small portion of the periphery of the bale at any one time through a small hole in the floor. Such a disintegrator is very different from the much larger rotors of the well known April 1999 bale processors, which engaged a bale across the entire length of its periphery, and had slug bars that efficiently kept large chunks of the bale out of disintegrator rotor;
- f. The disintegrator rotor on a BP20 only nibbled at a bale slowly in an intentionally un-aggressive manner, which resulted in a long processing time. This is in contrast to the fast and aggressive engagement of a bale in the well known April 1999 bale processors;
- g. The inferior engagement between the rotor and the bale in the BP20 leads to the carving of tunnels, channels and/or grooves in the bale. The result of this is that it becomes even more difficult for the disintegrator rotor to engage a surface of the bale;
- h. The distance a BP20 generally threw processed hay was much less than the distance hay was thrown in the well known April 1999 bale processors. Due to this inadequacy, the skilled person would know that the BP20 could not be used in a number of typical bale processor applications, such as roadside erosion control; and
- i. The required PTO speed of the BP20 is 540 RPM. As of April 1999, 540 RPM was an obsolete PTO speed for bale processors, as well as many other farm implements. A PTO rotating at 1000 RPM, which is what a skilled person would have required in a bale processor as of

April 1999 due to the superior speed and rotational power needed to perform the intended functions, is much more effective than a PTO rotating at 540 RPM. A bale processor designed to operate using a PTO speed of 540 RPM would receive no attention from the skilled person.

(Bridgeview's Closing Argument, para. 220, citing Hanson, Second Report, para. 49)

1. Conclusion: The Hesston BP20 was prior art on the claim date.

[66] I give no weight to Bridgeview's downgrading arguments. Regardless of the identified deficiencies of the BP20, the machine's discontinuance, and that right-hand discharge was developed coexistent with the objective of increasing rotor speed through use of a gearbox, the fact remains that Hesston was the first to recognize the advantage of a right-hand discharge in a bale processor using a gearbox. There is no reason to believe that, on the claim date, the skilled person with his or her academic knowledge and practical expertise would not have known about this unique farm machinery development. In addition, there is no question that the BP20 was publicly known since it was in the market place for two years and enjoyed some consumer acceptance since some 940 machines were produced. Indeed, both Dr. Parish and Mr. Hanson knew of the machine in the development of their expert opinions. As a result, and I find that the Hesston BP20 was prior art on the claim date.

D. The failure to claim the tractor

[67] A further argument respecting validity of the Patent advanced by DuraTech requires brief comment. DuraTech argues that the tractor that pulls the claimed bale processor should have been added to Claim 1 because it is a necessary part of the promised advantage of the claimed

combination. That is, to have the promised advantage of the operator being able to conveniently look over his or her right-hand shoulder to see the right-hand discharge, it is necessary to have a tractor with a power take off that is made to turn the bale processor's disintegrator in a counter-clockwise direction as viewed from the rear. I give no weight to this argument because, in my opinion, since the bale processor is a pull-type machine, it is implied that a tractor is included in the claims.

E. Conclusion: The Patent is invalid for obviousness.

[68] With respect to the inventive concept, I find that it exists in the Hesston BP20. Therefore, given the existence of the Hesston BP20 in the prior art on the claim date, I find that, on the claim date, in light of the state of the art and the common general knowledge of discharge systems on farm equipment generally, and bale processors specifically, the skilled person would not consider recognition of an advantage in most cases of a right-hand discharge in a bale processor using a gearbox to be novel.

APPENDIX A

I. Patent Construction

A. General Rules

Justice Hughes in *Pfizer Canada Inc. v. Canada (Minister of Health)*, 46 C.P.R. (4th) 244 at paras. 29 – 53 provides a convenient summary of the law on patent construction derived from the Supreme Court of Canada's decisions in *Whirlpool Corp. v. Camco Inc.* (2000), 9 C.P.R. (4th) 129 (*Whirlpool*), and *Free World Trust v. Électro Santé Inc.*, [2000] 2 S.C.R. 1024 (*Free World*).

The following is a précis of the summary edited for relevance to the present case.

The Principles of Whirlpool and Free World

The Supreme Court of Canada in *Whirlpool* and *Free World*, gave landmark decisions respecting Canadian patent law. While preceding *Kirin- Amgen* by almost four years, these decisions are remarkably in agreement. In its decisions the Supreme Court endorsed the "purposive construction" approach and did away with the "two tiered" approach (*Free World* paras 45-50, *Whirlpool* paras 42-50). The Court expressly rejected a "grammatical" or "meticulous verbal analysis" approach (*Whirlpool* paragraphs 48 and 53).

Section 34(2) of the *Patent Act* R.S.C. 1985, c.P.4 requires that a patent specification and with a claim or claims which "distinctly and in explicit terms" set out the scope of the monopoly claimed. As the Supreme Court in *Whirlpool* said at paragraph 42:

The content of a patent specification is regulated by s. 34 of the Patent Act. The first part is a "disclosure" in which the patentee must describe the [page1089] invention "with sufficiently complete and accurate details as will enable a workman, skilled in the art to which the invention relates, to construct or use that invention when the period of the monopoly has expired": *Consolboard Inc. v. MacMillan Bloedel (Sask.) Ltd.*, [1981] 1 S.C.R. 504, at p. 517. The disclosure is the quid provided by the inventor in exchange for the quo of a 17-year (now 20-year) monopoly on the exploitation of the invention. The monopoly is enforceable by an array of statutory and equitable remedies and it is therefore important for the public to know what is prohibited and where they may safely go while the patent is still in existence. The public notice function is performed by the claims that conclude the specification and must state "distinctly and in explicit terms the things or combinations that the applicant regards as new

and in which he claims an exclusive property or privilege" (s. 34(2)). An inventor is not obliged to claim a monopoly on everything new, ingenious and useful disclosed in the specification. The usual rule is that what is not claimed is considered disclaimed.

1. Who Construes the Claim?

The Court construes the claim (*Whirlpool* at paragraphs 43 and 45). It is not the function of an expert witness to construe the claim.

Whirlpool at paragraph 57:

The role of the expert was not to interpret the patent claims but to put the trial judge in the position of being able to do so in a knowledgeable way.

2. When are the Claims Construed?

The claims are construed by the Court at the outset of its decision before considering issues of validity or infringement. It is not to be a "results oriented" exercise, rather, it is to be carried out without an eye either to the alleged infringement or the prior art. (*Whirlpool* paragraphs 43 and 49(a)).

3. As of What Date are the Claims to be Construed?

Editor's Note: Section 28.1 of the *Patent Act* provides the following provision which applies in the present case with respect to U.S. Patent Application Serial No. 09/303,263 filed on April 30, 1999:

(1) The date of a claim in an application for a patent in Canada (the "pending application") is the filing date of the application, unless

(a) the pending application is filed by

(i) a person who has, or whose agent, legal representative or predecessor in title has, previously regularly filed in or for Canada an application for a patent disclosing the subject-matter defined by the claim, or

(ii) a person who is entitled to protection under the terms of any treaty or convention relating to patents to which Canada is a party and who has, or whose agent, legal representative or predecessor in title has, previously regularly filed in or for any other country that by treaty, convention or law affords similar protection to citizens

of Canada an application for a patent disclosing the subject-matter defined by the claim;

(b) the filing date of the pending application is within twelve months after the filing date of the previously regularly filed application; and

(c) the applicant has made a request for priority on the basis of the previously regularly filed application.

(2) In the circumstances described in paragraphs (1)(a) to (c), the claim date is the filing date of the previously regularly filed application.

1993, c. 15, s. 33.

4. What are the Criteria for Construction?

Whirlpool at paragraph 45:

The key to purposive construction is therefore the identification by the court, with the assistance of the skilled reader, of the particular words or phrases in the claims that describe what the inventor considered to be the "essential" elements of his invention.

Free World at paragraph 51:

The words chosen by the inventor will be read in the sense the inventor is presumed to have intended.

These words do not mean that the Court is to embark upon a subjective examination of what was in the mind of the inventor, rather, the Court is to embark upon an objective exercise as to what a skilled reader would have understood the inventor to mean.

5. What Resources May be Used for Construction?

A claim is to be read in the context of the rest of the specification.

Whirlpool at paragraph 52 quoting *Metalliflex Ltd. v. Rodi & Wienenberger Aktiengesellschaft*, [1961] S.C.R. 117, at p. 122:

The claims, of course, must be construed with reference to the entire specifications, and the latter may therefore be considered in order to assist in apprehending and construing a claim, but the patentee may not be allowed to expand his monopoly specifically expressed in the

claims "by borrowing this or that gloss from other parts of the specifications".

Whirlpool at paragraph 52 quoting Hayhurst, William L., "The Art of Claiming and Reading a Claim", in G.F. Henderson, ed., *Patent Law of Canada* (Scarborough, Ont.: Carswell, 1994):

More recently, Hayhurst, *supra*, at p. 190, cautioned that "[t]erms must be read in context, and it is therefore unsafe in many instances to conclude that a term is plain and unambiguous without a careful review of the specification". In my view, it was perfectly permissible for the trial judge to look at the rest of the specification, including the drawing, to understand what was meant by the word "vane" in the claims, but not to enlarge or contract the scope of the claim as written and thus understood.

The Court may be assisted by expert witnesses in order to understand the context of the invention described and the particular meaning of terms used in the patent. The expert, however, is not to displace the Court in the role of the person who is to interpret the claims.

Whirlpool at paragraph 45:

The key to purposive construction is therefore the identification by the court, with the assistance of the skilled reader, of the particular words or phrases in the claims that describe what the inventor considered to be the "essential" elements of his invention.

6. Through Whose Eyes is Construction to be Made?

A patent is addressed to the "ordinary person skilled in the art" to whom it pertains.

Whirlpool at paragraph 53:

However, the patent specification is not addressed to grammarians, etymologists or to the public generally, but to skilled individuals sufficiently versed in the art to which the patent relates to enable them on a technical level to appreciate the nature and description of the invention.

[...]

Burton Parsons [*Burton Parsons Chemicals, Inc. v. Hewlett-Packard (Canada) Ltd.*, [1976] 1 S.C.R. 555, 17 C.P.R. (2d) 97, 54 D.L.R. (3d) 711], is a pre-*Catnic* instance of purposive construction where, as in *Catnic* itself, the skilled addressee made

sense and purpose of the words used in the claim by deploying the common knowledge of someone in that position. It is through the eyes of such a person, not an etymologist or academic grammarian, that the terms of the specification, including the claims, must be read.

Free World at paragraph 44:

The courts have traditionally protected a patentee from the effects of excessive literalism. The patent is not addressed to an ordinary member of the public, but to a worker skilled in the art described by Dr. Fox [The Canadian Law and Practice Relating to Letters Patent for Inventions (4th ed. 1969) at p. 184]:

[a worker skilled in the art is] a hypothetical person possessing the ordinary skill and knowledge of the particular art to which the invention relates, and a mind willing to understand a specification that is addressed to him. This hypothetical person has sometimes been equated with the "reasonable man" used as a standard in negligence cases. He is assumed to be a man who is going to try to achieve success and not one who is looking for difficulties or seeking failure.

Whirlpool at paragraph 74:

While the hypothetical "ordinary worker" is deemed to be un inventive as part of his fictional personality, he or she is thought to be reasonably diligent in keeping up with advances in the field to which the patent relates. The "common knowledge" of skilled workers undergoes continuous evolution and growth.

7. What is to be made of the Resulting Construction?

Purposive construction may be capable of expanding or limiting the literal text of the claim

Whirlpool at paragraph 49(h):

Purposive construction is capable of expanding or limiting a literal text, as Hayhurst, *supra*, points out at p. 194 in words that anticipate the trial judgment in this case: Purposive construction may show that something that might literally be within the scope of the claim was not intended to be covered, so that there can be no infringement . . . Similarly, two other experienced practitioners, Carol V.E. Hitchman and Donald H. MacOdrum have concluded that "[a] purposive construction is not necessarily a broader

construction than a purely literal one, although it may be” (Hitchman and MacOdrum, “Don’t Fence Me In: Infringement in Substance in Patent Actions” (1990), 7 C.I.P. Rev. 167, at p. 202).

Free World at paragraph 50:

Purposive construction” does away with the first step of purely literal interpretation but disciplines the scope of “substantive” claims construction in the interest of fairness to both the patentee and the public.

Free World at paragraph 51:

This point is addressed more particularly in *Whirlpool Corp. v. Camco Inc.*, [2000] 2 S.C.R. 1067, 2000 SCC 67 and *Whirlpool Corp. v. Maytag Corp.*, [2000] 2 S.C.R. 1116, 2000 SCC 68, released concurrently. The involvement in claims construction of the skilled addressee holds out to the patentee the comfort that the claims will be read in light of the knowledge provided to the court by expert evidence on the technical meaning of the terms and concepts used in the claims. The words chosen by the inventor will be read in the sense the inventor is presumed to have intended, and in a way that is sympathetic to accomplishment of the inventor's purpose expressed or implicit in the text of the claims. However, if the inventor has misspoken or otherwise created an unnecessary or troublesome limitation in the claims, it is a self-inflicted wound. The public is [page1054] entitled to rely on the words used provided the words used are interpreted fairly and knowledgeably.

Once a claim is construed, the Court may proceed to examine the issues of validity and infringement on the basis of that construction (see *Whirlpool* at paragraph 43).

Whirlpool at paragraph 76:

The issue of infringement is a mixed question of fact and law. Claims construction is a matter of law. Whether the defendant’s activities fall within the scope of the monopoly thus defined is a question of fact: *Western Electric, supra*. [*Western Electric Co. v. Baldwin International Radio of Canada*, [1934] 4 D.L.R. 129, [1934] S.C.R. 570].

8. Throwing Up One's Hands - Ambiguity

There is a temptation, particularly in hotly contested cases, to throw up one's hands and say that the claim is not capable of any construction, or any one construction. That is, it is ambiguous, therefore, invalid.

As a practical matter, Canadian courts have resisted holding claims to be incapable of meaning. The modern approach is exemplified by Mosley J. in *Letourneau v. Clearbrook Iron Works Ltd.*, September 26, 2005, [2005] F.C.J. No. 1589, 2005 FC 1229 at paragraphs 37 and 38:

A claim is not invalid simply because it is not a model of concision and lucidity. Very few patent claims are. Claims are drafted to be understood by people with practical knowledge and experience in the specific field of the invention: *Risi Stone Ltd.*, [1995] F.C.J. No. 1316, *supra*, at 20. If a term can be interpreted using grammatical rules and common sense, it cannot be ambiguous: *Mobil Oil Corp. v. Hercules Canada Inc.* (1995), 63 C.P.R. (3d) 473 at 484, 188 N.R. 382 (F.C.A.).

The Court must give a purposive construction to a claim without being too astute or technical. If there is more than one construction that can be reasonably reached, the Court must favour the construction which upholds the patent. Where the language of the specification, upon a reasonable view of it, can be read so as to afford the inventor protection for that which he has actually in good faith invented, the court, as a rule, will endeavour to give effect to that construction: *Lubrizol Corp. v. Imperial Oil Ltd.* (1992), 45 C.P.R. (3d) 449, 98 D.L.R. (4th) 1 (F.C.A.); *Western Electric Co. Inc. and Northern Electric Co. v. Baldwin International Radio of Canada Ltd.*, [1934] S.C.R. 570, [1934] 4 D.L.R. 129; *Unilever PLC. v. Proctor & Gamble Inc.*, [1995] F.C.J. No. 1005 at para 23, 61 C.P.R. (3d) 499 (F.C.A.).

In short, ambiguity is truly a last resort, rarely, if ever, to be used.

B. Specific Construction Concerns

1. When claims differ

Whirlpool at para. 79:

If the two claims are identical in other respects, one infers on a purposive construction that the claims were intended to describe alternative drive systems. It is well understood that "[w]here one claim differs from another in only a single feature it is difficult to

argue that the different feature has not been made essential to the claim: Hayhurst, *supra*, at p. 198 [Hayhurst, William L., “*The Art of Claiming and Reading a Claim*”, in G.F. Henderson, ed., *Patent Law of Canada* (Scarborough, Ont.: Carswell, 1994)].

2. Claim differentiation

Section 87 of the *Patent Rules*, SOR/96-423:

87. (1) Subject to subsection (2), any claim that includes all the features of one or more other claims (in this section referred to as a “dependent claim”) shall refer by number to the other claim or claims and shall state the additional features claimed.

(2) A dependent claim may only refer to a preceding claim or claims.

(3) Any dependent claim shall be understood as including all the limitations contained in the claim to which it refers or, if the dependent claim refers to more than one other claim, all the limitations contained in the particular claim or claims in relation to which it is considered.

Halford v. Seed Hawk Inc. (2004), 31 C.P.R. (4th) 434 at para. 91 (*Halford*):

It is clear from s. 87 of the *Patent Rules* that a dependent claim includes all the features and limitations of the claim which it incorporates by reference. As a result, the independent claim cannot be given a construction which is inconsistent with the claims which are dependent upon it.

Halford at para. 93:

In its simplest form, claim differentiation simply requires that “limitations of one claim not be ‘read into’ a general claim” (*Wolens v. F.W. Woolworth Co.*, 703 F.2d 983 (Fed. Cir. 1983) at p. 988).

3. Claim differentiation is a reputable presumption

Halford at paragraph 94:

The principle of claim differentiation is treated as a rebuttable presumption:

That presumption is especially strong when the limitation in dispute is the only meaningful difference between an independent and dependent claim, and one party is arguing that the limitation in the dependent claim should be read into the independent claim. [*Sunrace Roots Enterprise Co. v. SRAM Corp.*, 336 F.3d 1298 (U.S.C.A. Fed. Cir. 2003) at p. 1303.]

II. Patent Infringement

Justice Binnie in *Free World Trust v. Électro Santé Inc.*, [2000] 2 S.C.R. 1024 (S.C.C.) at

paragraphs 14 and 15 expresses the need to clearly define the essential elements of a patent claim:

Patent claims are frequently analogized to “fences” and “boundaries”, giving the “fields” of the monopoly a comfortable pretence of bright line demarcation. Thus, in *Minerals Separation North American Corp. v. Noranda Mines, Ltd.*, [1947] Ex. C.R. 306, Thorson P. put the matter as follows, at p. 352:

By his claims the inventor puts fences around the fields of his monopoly and warns the public against trespassing on his property. His fences must be clearly placed in order to give the necessary warning and he must not fence in any property that is not his own. The terms of a claim must be free from avoidable ambiguity or obscurity and must not be flexible; they must be clear and precise so that the public will be able to know not only where it must not trespass but also where it may safely go.

In reality, the “fences” often consist of complex layers of definitions of different elements (or “components” or “features” or “integers”) of differing complexity, substitutability and ingenuity. A matrix of descriptive words and phrases defines the monopoly, warns the public and ensnares the infringer. In some instances, the precise elements of the “fence” may be crucial or “essential” to the working of the invention as claimed; in others the inventor may contemplate, and the reader skilled in the art appreciate, that variants could easily be used or substituted without making any material difference to the working of the invention. The interpretative task of the court in claims construction is to separate the one from the other, to distinguish the essential from the

inessential, and to give to the “field” framed by the former the legal protection to which the holder of a valid patent is entitled.

III. Patent Validity

A. The presumption of validity

Subsection 43(2) of the *Patent Act*, R.S.C. 1985, c. P-4 states:

Validity of patent

(2) After the patent is issued, it shall, in the absence of any evidence to the contrary, be valid and avail the patentee and the legal representatives of the patentee for the term mentioned in section 44 or 45, whichever is applicable.

B. The onus to prove invalidity

As stated in *Monsanto Canada Inc. v. Schmeiser* (2004), 31 C.P.R. (4th) 161 at 174 (S.C.C.) at paragraph 24, the onus is not on the patentee:

Monsanto's patent has already been issued, and the onus is thus on Schmeiser to show that the Commissioner erred in allowing the patent: *Apotex Inc. v. Wellcome Foundation Ltd.*, [2002] 4 S.C.R. 153 at paras. 42-44.

C. The definition of obviousness in the *Patent Act*

28.3 The subject-matter defined by a claim in an application for a patent in Canada must be subject-matter that would not have been obvious on the claim date to a person skilled in the art or science to which it pertains, having regard to

(a) information disclosed more than one year before the filing date by the applicant, or by a person who obtained knowledge, directly or indirectly, from the applicant in such a manner that the information became available to the public in Canada or elsewhere; and

(b) information disclosed before the claim date by a person not mentioned in paragraph (a) in such a manner that the information became available to the public in Canada or elsewhere.

D. The definition of obviousness in the case law

The classic test for obviousness is stated by Justice Hugessen in *Beloit Canada Ltd. v. Valmet Oy* (1986), 8 C.P.R. (3d) 289 at 294:

Inventors are by definition inventive. The classical touchstone for obviousness is the technician skilled in the art but having no scintilla of inventiveness or imagination; a paragon of deduction and dexterity, wholly devoid of intuition; a triumph of the left hemisphere over the right. The question to be asked is whether this mythical creature (the man in the Clapham omnibus of patent law) would, in the light of the state of the art and of common general knowledge as at the claimed date of invention, have come directly and without difficulty to the solution taught by the patent. It is a very difficult test to satisfy.

The classic test has been refined by Justice Rothstein in *Apotex Inc. v. Sanofi-Synthelabo Canada Inc.*, 2008 SCC 61 at paragraph 67:

- (1) Identify the notional “person skilled in the art”; and the relevant common general knowledge of that person;
- (2) Identify the inventive concept of the claim in question or if that cannot readily be done, construe it;
- (3) Identify what, if any, differences exist between the matter cited as forming part of the “state of the art” and the inventive concept of the claim or the claim as construed;
- (4) Viewed without any knowledge of the alleged invention as claimed, do those differences constitute steps which would have been obvious to the person skilled in the art or do they require any degree of invention?

In *Sanofi* at paragraph 70 Justice Rothstein makes the following point:

“obviousness is largely concerned with how a skilled worker would have acted in light of the prior art.”

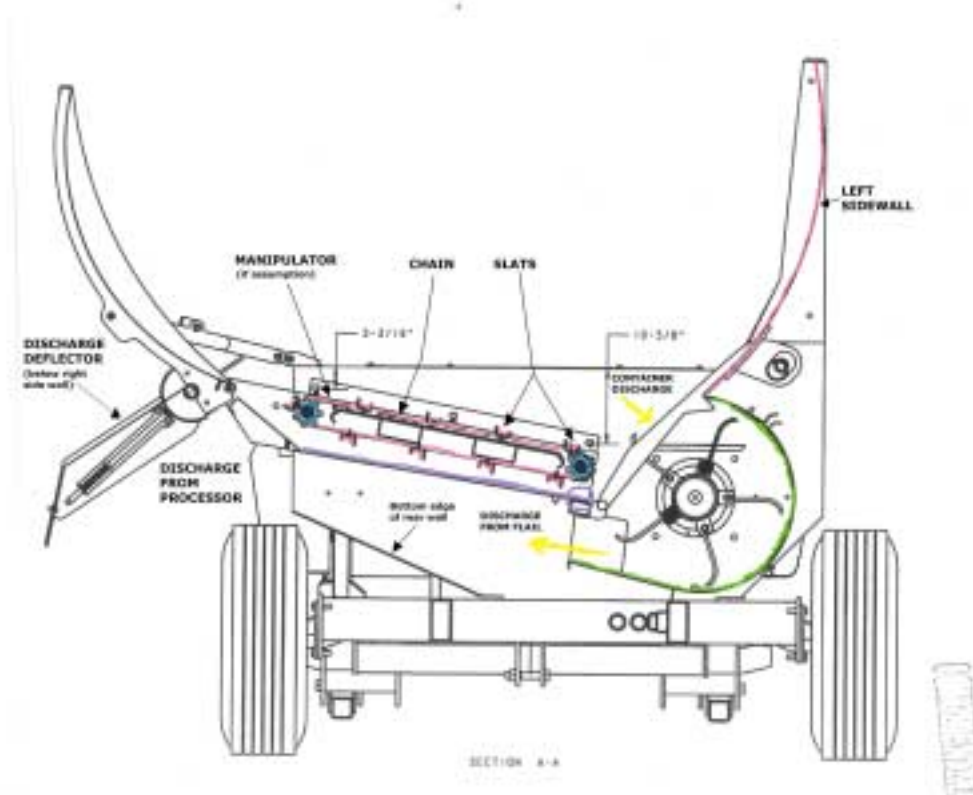
E. Obviousness with respect to combination inventions

In *Shell Oil Co. v. Commissioner of Patents* (1982), 67 C.P.R. (2d) 1 at 9 – 11, the Supreme Court held:

A novel combination of elements, old or new, is patentable. In a combination patent, the inventiveness lies in the combination itself, and not necessarily in its constituent elements. Therefore, when analyzing inventiveness, the combination must be looked at as a whole; it is improper to break the invention down into its constituent elements in an obviousness analysis.

APPENDIX B

Exhibit 6



JUDGMENT

The Plaintiffs' claim is dismissed, and the Defendants' counterclaim is allowed. As the Defendants are wholly successful in this action, I award costs of the action to them.

“Douglas R. Campbell”

Judge

FEDERAL COURT

SOLICITORS OF RECORD

DOCKET: T-1554-05

STYLE OF CAUSE: BRIDGEVIEW MANUFACTURING INC. et al
v. 931409 ALBERTA LTD. c.o.b. CENTRAL
ALBERTA HAY CENTRE et al

PLACE OF HEARING: SASKATOON, SASKATCHEWAN

DATES OF HEARING: DECEMBER 1-12, 2008

**REASONS FOR JUDGMENT
AND JUDGMENT:** CAMPBELL J.

DATED: JANUARY 20, 2009

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