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Docket: T-824-04

Citation: 2009 FC 58

Ottawa, Ontario, March 3, 2009

PRESENT: The Honourable Mr. Justice O'Keefe

BETWEEN:

UVIEW ULTRAVIOLET SYSTEMS INC.

Plaintiff

and

**BRASSCORP LTD.
(d.b.a. CLIPLIGHT MANUFACTURING COMPANY)**

Defendants

**REASONS FOR THE
JUDGMENT OF DECEMBER 23, 2008
AND AMENDED JUDGMENT**

O'KEEFE J.

[1] This is an action brought by Uview Ultraviolet Systems Inc. (the plaintiff) against Brasscorp Ltd. (defendant) for infringement of Canadian Patents 2,235,673 ('673 Patent) and 2,224,024 ('024 Patent). The defendants on the action have counterclaimed.

[2] With respect to the original action, the plaintiff requests the following relief:

- a) a declaration as between the plaintiff and the defendant that the '673 Patent and the '024 Patent are owned by the plaintiff and are valid and subsisting;
- b) a declaration that the defendant has infringed claims 1, 2, 3, 4, 7, 8, 9, 10, 14, 15 and 16 of the '673 Patent and claims 1, 2, 3, 4, 5, 6, 7, 9, 10, 11, 12, 13, 14, 15, 17, 18, 19, 20, 21 and 38 of the '024 Patent and has induced and procured the infringement of claims 1, 2 and 3 of the '673 Patent and claim 9 of the '024 Patent by others;
- c) interim, interlocutory and permanent injunctions to restrain the defendant by itself or by its shareholders, directors, officers, agents, servants, employees, affiliates, subsidiaries, or any other entity under its authority or control from:
 - i) directly or indirectly infringing any claims of the '673 Patent or the '024 Patent; and
 - ii) inducing or procuring others to infringe claims of the '673 Patent or the '024 Patent;
- d) an order directing the defendant to forthwith deliver up to the plaintiff all articles in its possession or power, used, made or being made in infringement of the said '673 Patent or the '024 Patent, or that such articles be destroyed;
- e) damages in an amount to be ascertained;
- f) or, in the alternative to the order sought in (e), an accounting of the profits made by the defendant as a result of its unlawful activities;
- g) reasonable compensation for acts on the part of the defendant after the applications for the '673 Patent or the '024 Patent became open to public inspection and before the grant of the

said patents, that would have constituted an infringement of the respective patents if they had been granted on the day the application became open to public inspection;

- h) pre-judgment and post-judgment interest; and
- i) its costs of this action on a solicitor and client basis plus GST.

[3] With respect to the counterclaim, the defendant requests the following relief:

- a) a declaration that the claims of the '673 Patent and the '024 Patent are and always have been, invalid and void;
- b) an interim, interlocutory and permanent injunction restraining the plaintiff, its officers, directors, agents, employees and all those over whom it exercises control, either directly or indirectly, from making false or misleading statements tending to discredit the business, wares and services of the defendant, contrary to subsection 7(a) of the *Trade-marks Act*, R.S.C. 1985, c. T-13;
- c) pre- and post-judgment interest on any and all monetary relief or costs at a rate exceeding the prevailing consumer lending rate; and
- d) costs on a solicitor client scale or at the high end of Column V of Tariff B of the *Federal Courts Rules*, SOR/98-106.

Background

[4] Uview Ultraviolet Systems Inc. (the plaintiff, defendant in the counterclaim) is a corporation incorporated under the laws of Ontario that manufactures and distributes air-conditioning leak detection systems. The plaintiff is the owner of the '673 Patent and the '024 Patent.

[5] The '673 Patent was laid open to public inspection on March 26, 1998 and was granted to the plaintiff on August 13, 2002 for an invention entitled Method and Apparatus for Charging Pressurized Systems. The claims of the '673 Patent includes a method, apparatus and canister used in charging a closed, pressurized air-conditioning system with a secondary fluid as per the invention. The '673 Patent grants the plaintiff the exclusive right, privilege and liberty of making, constructing, using and vending to others to be used in Canada, the invention as described in the specification of the '673 Patent.

[6] The '024 Patent was laid open to public inspection on June 8, 1999 and was granted to the plaintiff on November 21, 2006 for an invention entitled Apparatus and Process for Charging a Pressurized System. The claims of the '024 Patent includes an apparatus, a canister and a method used in charging a closed, pressurized air conditioning system with a secondary fluid. The '024 Patent grants the plaintiff exclusive right, privilege and liberty of making, constructing, using and vending to others to be used in Canada, the invention as described in the specification of the '024 Patent.

[7] Brasscorp Ltd. (the defendant, plaintiff in the counterclaim) carries on business as Cliplight Manufacturing Company. The defendant makes, constructs and/or vends to others to be used in Canada an apparatus and cartridges for charging a closed pressurized air conditioning system with a dye under the name THE CLIPLIGHT REVOLVER UV DYE SYSTEM. The defendant also makes, constructs and/or vends to others, two apparatuses to be used in Canada, for charging a

closed pressurized air conditioning system, one with a dye sold under the brand, THE DYE STICK, and one with an oil sold under the brand, THE RETRO STICK.

Prior Art

[8] Infusion methods were the most common way to inject secondary fluids into pressurized air conditioning or refrigeration (AC) systems prior to the filing of the '673 Patent. Infusion methods used pressurized refrigerant to carry fluid into the AC systems. The 701 infusion system which is exhibit 9 is an example of an infusion device.

[9] Paragraphs 5 to 7 of the plaintiff's closing argument summarizes the other prior art. These paragraphs read as follows:

5. Prior to the filing of the '673 patent, the most common methods used to inject secondary fluids into AC systems were infusion methods that used pressurized refrigerant to carry fluid into the AC systems. The 701 infusion system (Exhibit 9) is an example of such an infusion device.

6. the prior art also includes three hand operated mechanical injector implements adapted for injecting secondary fluids into AC systems. US patent 4,467,620 ("Bradley") which issued August 28, 1984 disclosed a hand operated tool for injection of oil into AC systems in respect of which there is no evidence of any commercialization. In the early to mid-1990's, two mechanical injectors for injecting fluids into AC systems were introduced in the market. The Quest injector was a patented disposable "Do It Yourself" hand operated mechanical injector prefilled with red non-fluorescing dye that saw limited distribution in Canada, and that has been discontinued as a listed product by its manufacturer. The Classic injector was a reusable, hand operated mechanical injector that required filling of a reservoir prior to each use. The Plaintiff's predecessor P & F Technologies ("P&F"), distributed the Classic

tool in Canada for a short time and did not find it to be a commercially successful product. Notwithstanding introduction of the Quest and Classic products, infusion devices that used pressurized gas remained the most commonly used AC fluid injection methods for carrying secondary fluids into AC systems.

7. Bradley, Quest and Classic are all unitary or one-piece injectors, comprising:

- a housing for containing a secondary fluid
- a piston in the housing, and
- a threaded ram engaged with threads in the housing to drive the piston.

In each case, the ram is rotated to drive the piston into the housing to expel fluid from the housing. Bradley provides a cross bar and Classic provides a hand grip to enable manual rotation of the ram. Quest differs from Bradley and Classic in that a wrench is required to facilitate rotation of the ram. Bradley and Classic were refillable and Quest was disposable.

[10] The president of Uview Ultraviolet Systems and the sole inventor named on the plaintiff's patents in issue (the '673 Patent and '024 Patent), Phil Trigiani, was trained and worked as an automotive mechanic and has experience in servicing automotive air conditioners. He also has a masters degree in business administration. Mr. Trigiani and his cousin, Tony Ferraro, who is also an experienced automotive technician, established P & F Technologies to manufacture refrigerant recovery implements. The business expanded to include recovery and recycling implements and the distribution of other automotive servicing equipment and materials.

[11] There were concerns about the depletion of the ozone layer in the 1980s. This resulted in the adoption of the Montréal Protocol in the early 1990s. This resulted in a requirement for the phasing

out and eventual elimination of refrigerants released into the atmosphere. As a result, before an AC system could be topped up to enable it to function properly, the system had to be checked for leaks and the leaks repaired.

[12] As well, the existing coolant R12 was replaced with a coolant known as R134. The R134 had a smaller molecule than the R12 coolant. This made leak detection more difficult. As a result, the demand for effective leak detection tools and methods increased. In response to this demand, the use of UV fluorescing dye as a leak detection method in pressurized AC systems became popular (see paragraphs 6 and 7 of the agreed statement of facts).

[13] Mr. Trigiani and Mr. Ferraro formed the plaintiff, Uview Ultraviolet Systems Inc., and began to design, develop and blend their own dyes and manufacture their own UV lights and injection devices.

[14] In an effort to develop a better injector product, Mr. Trigiani states that he thought of a device which was an injector product which would have a disposable container that could be prefilled with a fluid that could be injected into an AC system. He would need to invent some type of mechanical advantage to overcome the pressure of the AC system instead of the infusion method.

[15] In or around March 1996, Mr. Trigiani and Mr. Ferraro applied for US patent protection.

[16] Mr. Trigiani continued to make changes to his idea which resulted in a prototype injector being produced in the summer of 1996. His US patent attorney told him the US application would not cover the prototype injector. As a result, the '673 priority application was prepared.

[17] In 1996, two more prototypes were produced and although they worked, they were too expensive to be a viable commercial product.

[18] After more thought, Mr. Trigiani decided to replace his prototype injector with a commercial caulking gun. The commercial caulking gun he adapted had sufficient power to overcome the pressure of the AC system so as to allow the dye to be injected into the system.

[19] In late 1996, the design of the prefilled cartridges to be used with the caulking gun injector was completed.

[20] A European patent was also obtained for the caulking gun injector.

[21] The plaintiff named its caulking gun injector the "SPOTGUN".

[22] Paragraph 11 of the agreed statement of facts describes the SPOTGUN and when it was first sold:

11. The Plaintiff first sold its commercial product under the SPOTGUN brand on February 4, 1997. The injector was a modified caulking gun style injector; the cartridge included a threaded nozzle; and the charging conduit included a connector adapted to engage the

threaded nozzle, a check valve at the connection to the nozzle and a connector having a valve adapted to open upon engagement with and close upon disengagement from charge ports on AC systems.

[23] Paragraph 12 of the agreed statement of facts states:

12. The Plaintiff's SPOTGUN product was recognized by Motor magazine as one of the "Top 20 Tools That Rule" in the September 1997 edition.

[24] The plaintiff's SPOTGUN was adopted by General Motors within a year of its commercial launch. Every General Motors dealer in North America was provided with the SPOTGUN for injection into AC units.

[25] Around the same time as the plaintiff started to sell SPOTGUN, a product called the ROBINAIR injector was marketed. The ROBINAIR injector was a plastic syringe connected to a conduit for connection to AC systems through a two piece metal nozzle containing an anti-back flow valve attached through the end of the syringe barrel.

[26] Also around this same time, the defendant tried to develop a prototype injector that used a separate injector and cartridge. Part of the cartridge had a foil top that was punched in the injector to open communication with a nozzle on the injector that included an anti-back flow valve. No evidence was presented to show that the drawings or any prototype was disclosed to the public by the defendant.

[27] Paragraphs 14, 16, 18, 19, 20, 24, 27, 28, 29 and 30 of the agreed statement of facts outline the defendant's products and its activities. These paragraphs read as follows:

14. On November 4, 1997 the Defendant filed U.S. provisional application No. 60-064,172 (the provisional application) entitled precision liquid injection system with the USPTO.

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16. On November 3, 1998 the Defendant filed Canadian patent application No. 2,252,329 (the '329 application) in the Canadian Patent Office claiming priority to the provisional application filed November 4, 1997. The '329 application was open to public inspection on May 4, 1999 and was allowed on February 29, 2008.

...

18. The Defendant commenced marketing and sales of its DYE STICK and THE RETRO STICK products in 1998.

19. The Defendant has sold its DYE STICK injector separately and as part of kits including hoses, lights, and related apparatus. The Defendant has marketed its DYE STICK injector as a disposable dye injector for use to inject dye through a hose into an air-conditioning system and as working with SPOTGUN hoses.

20. The Defendant has sold its RETRO STICK injector separately and as part of kits including hoses in Canada and internationally. The Defendant markets the RETRO STICK for use in injecting conditioning oil into a closed air-conditioning system through a hose.

...

24. The Defendant commenced sales of the REVOLVER dye injection system in Canada about 2003. The Defendant sells REVOLVER injectors, cartridges and hoses separately, and as part of kits that may also include UV lights, adapters and other related items, for the express purpose of injecting a UV dye into a closed pressurized AC system.

...

27. On June 6, 2006 the Defendant entered into an agreement entitled "Supply Agreement" with Spectronics ("the Spectronics Agreement"). Prior to execution of the Spectronics agreement the Defendant obtained the components for its REVOLVER dye injection system directly from specified suppliers and assembled and filled the cartridges with dye itself.

28. Pursuant to the Spectronics Agreement, Spectronics purchases REVOLVER injectors and components for cartridges from "Ciplight's Suppliers". These suppliers are the same suppliers the Defendant previously obtained its products from, and continue to manufacture the products and components using tooling owned by the Defendant. Spectronics assembles the cartridges and fills them with dye supplied by Spectronics. Aside from the dye, the REVOLVER injectors and cartridges supplied by Spectronics are identical to the REVOLVER injectors and cartridges that the Defendant sold prior to entering into the Spectronics Agreement. The Defendant does not obtain the hoses it sells for the REVOLVER dye injection system from Spectronics.

29. The REVOLVER injectors and dye cartridges supplied through Spectronics are identical in form and structure to those sold by the Defendant prior to entering into the Spectronics Agreement.

30. On November 7, 2007, the Defendant provided Spectronics with a written request for indemnification in this litigation pursuant to paragraph 5.3 of the Spectronics Agreement.

[28] The plaintiff's dealings with Spectronics is summarized in paragraphs 21, 22 and 23 of the agreed statement of facts which state:

21. In May 2000, the Plaintiff commenced discussions with Spectronics Corporation ("Spectronics") to address infringement of the Plaintiff's patent rights by Spectronics, a leading manufacturer of mobile AC service tools. On October 13, 2000, the Plaintiff entered into a confidential license agreement with Spectronics providing Spectronics a license under the Plaintiff's patents.

22. Canadian Patent Nos. 2,235,673 and 2,224,024 are covered by the definition of Licensed Patents in the license granted to Spectronics.

23. The license to Spectronics is a valid and subsisting license.

Plaintiff's Other Enforcement

[29] The plaintiff initiated a patent infringement action against Bright Solutions Inc. in the United States to restrain the sale of infringing products. As a result, the plaintiff and Bright Solutions Inc. signed a confidential settlement agreement in May 2001.

[30] The plaintiff, in paragraphs 36, 37 and 38 of its closing argument outlines three further enforcement efforts by it:

36. The Plaintiff commenced a patent infringement action seeking to restrain the sale of infringing products by R.J. Doran & Company Ltd. (R.J. Doran) in the United Kingdom in 2004. The Plaintiff alleged infringement of products sold by R.J. Doran, including the Defendant's REVOLVER dye injection system that was purchased from the Defendant and sold by R.J. Doran as a private branded product. The Plaintiff entered into a confidential Settlement Agreement in January 2005 settling the dispute with R.J. Doran.

37. In late 2002, the Plaintiff alleged that certain products sold by Supercool Tire Seal Inc. infringed the Plaintiff's patents. In response to the Plaintiff's complaint, Supercool agreed to discontinue sales of its cartridge based injection system in November 2002.

38. As a result of the Plaintiff's enforcement efforts, the Plaintiff entered into supply agreements with two infringers.

[31] The plaintiff called as expert witnesses, Tony Ferraro who is a co-owner of the plaintiff and Jerome Lemon.

[32] The defendant called Professor Thomas Brown and Dr. Peter Frise as expert witnesses. The defendant also called Jonathan Cooper and James Ferris as witnesses.

[33] The defendant has filed a counterclaim against the plaintiff, the nature of which is stated in paragraph 26 of the agreed statement of facts:

26. On February 14, 2006, the Plaintiff issued a press release advising that it was prosecuting an action in the Federal Court of Canada against the Defendant and that allegations included that REVOLVER dye injection system products infringe one or more claims of the '673 patent. The Defendant claims the Plaintiff breached s. 7(1) of the *Trade-marks Act* as a result of the press release and claims damages in the Counterclaim in these proceedings.

[34] The plaintiff summarized the issues as follows:

1. Who is the person skilled in the art?
2. Does the REVOLVER product as sold by the Defendant, and/or used in the manner directed by the Defendant, infringe any of claims 1, 2, 3, 4, 7, 8, 9, 10, 14, 15 or 16 of the '673 patent and/or any of claims 1, 3, 5, 6, 7, 9, 17, 19, 20 or 38 of the '024 patent?
3. Does the DYE STICK product as sold by the Defendant, and/or used in the manner directed by the Defendant, infringe any of claims 1, 2, 3, 4, 7, 8, 9, 10, 14, 15 or 16 of the '673 patent and/or any of claims 1, 2, 3, 5, 6, 7 or 9 of the '024 patent?
4. Does the RETRO STICK product as sold by the Defendant, and/or used in the manner directed by the Defendant incorporate the invention claimed in any of claims 1, 3, 4, 8, 9 or 10 of the '673 patent?

5. Does the agreement between the Defendant and Spectronics provide the Defendant with a defence to infringement of the '673 or '024 patent in respect of the REVOLVER injectors and REVOLVER cartridges obtained from suppliers by Spectronics and then provided by Spectronics to the Defendant pursuant to the terms of the agreement?

6. Are any of claims 1, 2, 3, 4, 7, 8, 9, 10, 14, 15 or 16 of the '673 patent invalid on the basis that:

(a) The claim is anticipated by the Quest reference;

(b) Claim 14 is anticipated by the Bradley, Classic or Robinair references respectively;

(c) The claim is obvious as a result of the references and common general knowledge identified by the Defendant's experts;

(d) The claim is over broad or lacking utility as a result of the failure to specify a means for retaining the piston in the cylinder;

(e) the application that issued into the '673 patent failed to comply with section 37 due to a lack of drawings in the specification;

(f) The Plaintiff failed to comply with section 73(1)(a) of the *Patent Act* in view of the fact that the Plaintiff filed minutes from a hearing before the EPO in respect of the corresponding European application; or

(g) The '673 patent is void pursuant to s. 53(1) of the *Patent Act* on the basis that:

the petition contains an untrue material allegation, namely that Michael Kroll and Phil Trigiani were the owners of the invention; or

as a result of the omission of drawings of the apparatus in the specification, it contains more or less than is necessary for obtaining the end for they purported to be made.

7. Are any of claims 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 17, 18, 19, 20, 21 or 38 of the '024 patent invalid on the basis that:

- (a) The subject-matter defined by the claim is not patentably distinct from the subject-matter defined by any of the claims in the '673 patent;
 - (b) In respect of any of claims 1, 5, 6, 7 or 9, the claim was anticipated by Canadian patent application no. 2,252,329;
 - (c) In respect of any of claims 1, 4, 5, 6, 7, 9, 17, 20, 21 or 38, the subject-matter defined by the claim was anticipated by the Quest, Classic or Robinair references respectively;
 - (d) The claim is obvious as a result of the references and common general knowledge identified by the Defendant's experts;
 - (e) The claim is ambiguous as a result of the use of the term "release valve"?
8. Is the Defendant liable for infringement or inducing infringement of the identified claims of the '673 patent or the '024 patent?
9. Is the Plaintiff liable for making false and misleading statements contrary to section 7(a) of the *Trade-marks Act*?

[35] **Issue 1**

Who is the person skilled in the art?

In order to construe a patent, there must be a review of the patent specification through the eyes of an "ordinary person skilled in the art". Mr. Justice Binnie put it this way in *Whirlpool Corp. v. Camco* (2000), 9 C.P.R. (4th) 129 at 153 (S.C.C.):

53. A second difficulty with the appellants' dictionary approach is that it urges the Court to look at the words through the eyes of a grammarian or etymologist rather than through the eyes and with the common knowledge of a worker of ordinary skill in the field to which the patent relates. An etymologist or grammarian might agree with the appellants that a vane of any type is still a vane. 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: H. G. Fox, *The Canadian Law and Practice Relating to Letters Patent for Inventions* (4th ed. 1969), at p. 185. The court, writes Dr. Fox, at p. 203, must place itself

- in the position of some person acquainted with the surrounding circumstances as to the state of the art and the manufacture at the time, and making itself acquainted with the technical meaning in that art or manufacture that any particular word or words may have. . . .

[36] The '673 patent is directed to devices which are used to inject fluids such as dye into pressurized AC systems and the method to do so.

[37] The '024 patent is directed to an apparatus and process for injecting a fluid such as dye into a pressurized system such as a pressurized AC system and the method to do so.

[38] Put another way, the claims in this case are whether the cartridge and cartridge/injector combination and method of using this apparatus is novel. I would agree that the method claims are addressed to users of the apparatus such as automotive service technicians with experience in relating to pressurized automotive AC systems. The apparatus claim would be addressed to persons who could make the apparatus.

[39] I am of the opinion that the person with the common knowledge of a worker of ordinary skill in the field to which this patent relates would be a mechanical/manufacturing engineer or a technician with experience in the field of automotive air-conditioning.

Patent Construction

[40] In *Whirlpool* above, Mr. Justice Binnie, speaking for the Court, stated at pages 145 to 148:

1. The Principles of Patent Claims Construction

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.

43. The first step in a patent suit is therefore to construe the claims. Claims construction is antecedent to consideration of both validity and infringement issues. The appellants' argument is that these two inquiries -- validity and infringement -- are distinct, and that if the principles of "purposive construction" derived from *Catnic* are to be adopted at all, they should properly be confined to infringement issues only. The principle of "purposive construction", they say, has no role to play in the determination of validity, and its misapplication is fatal to the judgment under appeal.

44. It is true that in *Catnic* itself there was no attack on the validity of the patent. The litigation turned on issues of infringement. The patent in issue dealt with galvanized steel lintels for use in building construction. Lintels are structural members

placed over openings such as doors and windows to support the building above. The patent taught an ingenious new type of lintel of sheet metal bent into a box-like "lazy Z" shape that was light to handle and inexpensive to manufacture. The defendant knew of the plaintiff's product but was not familiar with the plaintiff's patent. The claims (of which they were unaware) taught that the lintel must have "a second rigid support member extending vertically from or from near the rear edge of the first horizontal plate" (underlining added; italics in original deleted). Vertical alignment would maximize the load-bearing capacity. For reasons unrelated to patent avoidance, the rigid support member in the defendant's product was inclined about eight degrees off vertical. The trial judge concluded that there was no literal infringement because the support did not extend precisely "vertically", but that, since there was no material difference in function of the component part, there was, viewing the defendant's lintel as a whole, infringement of the "pith and marrow" of the plaintiff's invention. The trial judge was reversed by a majority in the Court of Appeal but was subsequently avenged by restoration of his judgment by a unanimous House of Lords. Lord Diplock's description of purposive construction was as follows, at pp. 242-43:

My Lords, a patent specification is a unilateral statement by the patentee, in words of his own choosing, addressed to those likely to have a practical interest in the subject matter of his invention (i.e. "skilled in the art"), by which he informs them what he claims to be the essential features of the new product or process for which the letters patent grant him a monopoly. It is those novel features only that he claims to be essential that constitute the so-called "pith and marrow" of the claim. A patent specification should be given a purposive construction rather than a purely literal one derived from applying to it the kind of meticulous verbal analysis in which lawyers are too often tempted by their training to indulge. The question in each case is: whether persons with practical knowledge and experience of the kind of work in which the invention was intended to be used, would understand that strict compliance with a particular descriptive word or phrase appearing in a claim was intended by the patentee to be an essential requirement of the invention so that any

variant would fall outside the monopoly claimed, even though it could have no material effect upon the way the invention worked. [Emphasis in original.]

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. This is no different, I think, than the approach adopted roughly 40 years earlier by Duff C.J. in *J. K. Smit & Sons, Inc. v. McClintock*, [1940] S.C.R. 279. The patent in that case related to a method of setting diamonds in devices such as rotary drill bits for earth boring. Duff C.J., citing the earlier jurisprudence, put the focus on the inventor's own identification of the "essential" parts of his invention, at p. 285:

Obviously, the invention, as described by the inventor himself, involves the use of air suction to hold the diamonds in place while the molten metal is being introduced into the mold. There can be no doubt, in my mind, that as the inventor puts it, that is an essential part of his process. That part of his process is clearly not taken by the appellants. Adapting the language of Lord Romer, it is not the province of the court to guess what is and is not of the essence of the invention of the respondent. The patentee has clearly indicated that the use of air suction at that stage of the process is an essential, if not the essential, part of the invention described in the specification. [Emphasis added.]

46. To the same effect is the judgment of Thorson P. in *McPhar Engineering Co. of Canada v. Sharpe Instruments Ltd.*, [1956-60] Ex. C.R. 467, at p. 525:

Thus it is established law that if a person takes the substance of an invention he is guilty of infringement and it does not matter whether he omits a feature that is not essential to it or substitutes an equivalent for it. [Emphasis added.]

47. The "essential" elements approach was established in earlier English cases such as *Marconi v. British Radio Telegraph and*

Telephone Co. (1911), 28 R.P.C. 181 (Ch. D.), at p. 217, referred to by Duff C.J. in *J. K. Smit, supra*, and more recent pre-*Catnic* decisions in that country such as *Birmingham Sound Reproducers Ltd. v. Collaro Ltd.*, [1956] R.P.C. 232 (Eng. C.A.), and *C. Van Der Lely N.V. v. Bamfords Ltd.*, [1963] R.P.C. 61 (H.L.), where Lord Reid, dissenting on the result, said at p. 76: "you cannot avoid infringement by substituting an obvious equivalent for an unessential integer" (emphasis added).

48. The *Catnic* analysis therefore was not a departure from the earlier jurisprudence in the United Kingdom or in this country. It is no disrespect to Lord Diplock to suggest that at least to some extent he poured some fine old whiskies into a new bottle, skilfully refined the blend, brought a fresh clarity to the result, added a distinctive label, and *voilà* "purposive construction". In *Catnic*, as in the earlier case law, the scope of the monopoly remains a function of the written claims but, as before, flexibility and fairness is achieved by differentiating the essential features ("the pith and marrow") from the unessential, based on a knowledgeable reading of the whole specification through the eyes of the skilled addressee rather than on the basis of "the kind of meticulous verbal analysis in which lawyers are too often tempted by their training to indulge" (*Catnic, supra*, p. 243).

49. As stated, the Federal Court of Appeal applied the "purposive construction" approach to claims construction in *O'Hara, supra*, and, with respect, I think it was correct to do so. The appellants' argument that the principle of purposive construction is wrong or applies only to infringement issues must be rejected for a number of reasons: . . .

Thus, a purposive construction is to be used. The construction of a patent claim is a question of law for the Court.

[41] It is important to note that when applying a purposive construction, the Court must, with the assistance of the skilled person, identify the particular words or phrases in the clause that describe what the inventor considered to be the "essential" elements of his invention. The construction given

by the Court must be consistent with the text of the claims. A court must interpret the claims and not redraft them.

[42] The construction of a patent is a question of law and is to be done on the basis that the addressee is a person skilled in the art.

[43] The language of a patent should be construed as of the date of publication.

[44] A patent cannot be construed with an eye on the allegedly infringing device in respect of infringement.

[45] The defendant set out the following principles pertaining to claim construction at paragraph 51 of its memorandum of fact and law:

51. The Supreme Court of Canada has identified the following principles pertaining to claim construction:

- (1) The *Patent Act* and purposive construction promote adherence to the claims, which in turn promotes fairness and predictability
- (2) Canadian Courts have adopted the “peripheral claiming” approach, which emphasizes the language of the claims as identifying the legal boundary of the state-conferred monopoly
- (3) The claims perform a public notice function by setting out the scope of the monopoly, so that the public may know where it may go with impunity
- (4) The goals of the patent system or promoting research and competition are undermined if the scope of the monopoly lacks precision and certainty

- (5) The ingenuity of a patent does not normally lie in the identification of a desirable result, but in the teaching of a particular means to achieve it
- (6) The claims cannot be stretched to allow the patentee to monopolize anything that achieves the desired result
- (7) The claim language must be read in an informed and purposive way
- (8) Claim interpretation is neither literal nor based on vague notions such as the “spirit of the invention”. The more scope for searching for the “spirit of the invention”, the less the claims can perform their public notice function
- (9) A patent falls within the definition of “regulation” in the *Interpretation Act*, and as such merits construction that best assures attainment of its objects
- (10) The inventor’s intention is manifested in the patent claims as interpreted by a person skilled in the art
- (11) The knowledge of the ordinary worker should be brought to bear on the interpretation
- (12) A claim contains essential and non-essential elements. The task of the court is to separate the essential from the non-essential elements of the monopoly claimed by the patentee
- (13) In identifying the essential and non-essential elements, the inventor’s intention is preferred over the understanding of the addressee
- (14) The identification of essential and non-essential elements is made on the basis of the common knowledge of the worker skilled in the art to which the patent relates, as the date the patent was published
- (15) The words chosen by the inventor will be read in the sense the inventor is presumed to have intended at the date the patent was published, and in a way that is sympathetic to the accomplishment of the inventors’ purpose expressed or implicit in the claims

(16) The public is entitled to rely on the words used, provided they are interpreted fairly and knowledgeably; a mistake or unnecessary limitation in the claims is unfortunate, but a “self-inflicted wound” on the part of the inventor

(17) There is no resort to extrinsic evidence of the inventor’s intention. Allowing extrinsic evidence for the purpose of defining the monopoly would undermine the public notice function of the claims, and is inconsistent with a purposive construction, which focuses on the claim language

(18) An element is essential if the inventor’s intention, as discerned from the claims, is that the element is essential irrespective of its practical effect

(19) An element is considered non-essential if the patentee can show:

(a) That on a purposive construction of the words of the claim the element was clearly not intended to be essential; or

(b) At the date of publication of the patent, it would have been known to be obvious to a skilled reader that a particular element could be substituted without affecting the working of the invention; in other words, that the variant would perform substantially the same function in substantially the same way to obtain substantially the same result

(20) The onus is on the patentee to establish known and obvious substitutability at the date of publication of the patent. If the patentee fails to discharge that onus, the descriptive word or expression in the claim is to be considered essential unless the context of the claims language otherwise dictates

[46] The claims in issue in the ‘673 Patent are:

1. A method of charging a closed, pressurized air conditioning or refrigeration fluid system with a secondary fluid comprising the steps of:

a. sealably and releasably connecting to said system a closed, unpressurized container containing a predetermined amount of said secondary fluid, said container having a piston sealably disposed

therein and having two ends, a first end of said container being sealably secured to a first end of a charging conduit with a second end of said charging conduit being sealably and releasably connected to said system.

b. mechanically forcing said secondary fluid out of said container through said conduit and into said fluid system via displacement of said piston within said container

c. disconnecting said container from said system,

characterized in that said container is a cylindrical cartridge received by a cartridge receiver having piston driving means and in that said piston driving means is mechanically operated to drive said piston through said cartridge and thus force said secondary fluid into said system.

2. A method according to claim 1 characterized in that said secondary fluid comprises a dye.

3. A method according to claim 1 or 2 characterized in that said secondary fluid comprises an oil.

4. An apparatus for performing the method according to one of the claims 1-3 comprising:

a. a closed, unpressurized container containing a predetermined amount of said secondary fluid, said container having two ends and having a piston sealably disposed therein, a first end of said container being for connection to said system, said system and said first end of said container being sealably and releasably connectable by a charging conduit having two ends, a first end sealably securable to said first open end of said container and a second end sealably connectable to said system,

b. means for mechanically forcing said secondary fluid out of said container through said conduit and into said fluid system via displacement of said piston within said container characterized in that

said container is a cylindrical cartridge received by a cartridge receiver having piston driving means and in that said piston driving means is mechanically operated to drive said piston through said cartridge.

...

7. The apparatus of any of claims 4-6 characterized in that the secondary fluid within the cartridge comprises a dye.
8. The apparatus of any of claims 4-7 characterized in that the secondary fluid within the cartridge comprises an oil.
9. The apparatus of any of claims 4-8 characterized in that said cartridge and its connections are capable of withstanding pressures in the range of -30 psi to 300 psi ($-2 \times 10^5 \text{ N/m}^2$ to $2 \times 10^6 \text{ N/m}^2$).
10. The apparatus of any of claims 4-9 characterized in that said cartridge is disposable.

...

14. A canister for charging a closed, pressurized air conditioning or refrigeration system with a fluid, comprising:
 - a. a closed, non-pressurized cylindrical canister, wherein said canister has two ends, a first open end which connects to the system being charged and a second open end,
 - b. a predetermined amount of said fluid, wherein said fluid comprises a lubricant and a fluid dye for said air conditioning or refrigeration system, and wherein said fluid is maintained in said canister at about ambient pressure; and
 - c. a piston sealably disposed with said second open end of said canister, wherein said canister is adapted to sealably and releasably connect to said pressurized air conditioning or refrigeration system to form a closed binary system.
15. The canister of claim 14 characterized in that the canister and its connections are capable of withstanding pressures in the range of -30 psi to 300 psi ($-2 \times 10^5 \text{ N/m}^2$ to $2 \times 10^6 \text{ N/m}^2$).
16. The canister of any of claims 14-15 characterized in that said canister is disposable.

[47] The claims in issue in the '024 Patent are as follows:

1. An apparatus for charging a pressurized air conditioning or refrigeration system with a secondary fluid, comprising:

a) a canister containing a secondary fluid, wherein said secondary fluid comprises a fluid dye and wherein said canister includes:

i) a tubular casing for holding the secondary fluid therein,

ii) a nozzle integral with and extending out from a first end of said tubular casing to engage with one end of a fluidly coupling means, and

iii) a piston inserted within an open second end of said tubular casing to engage with a secondary fluid forcing means;

b) means for fluidly coupling said canister to the pressurized system,

wherein said fluidly coupling means is a connector assembly having a first end connected to said nozzle of said canister and a second end connected to a service valve of the pressurized system, wherein said connector assembly includes:

i) a flexible conduit,

ii) a connector on a first end of said flexible conduit, to engage with said nozzle of said canister, and

iii) a release valve on a second end of said canister, through said fluidly coupling means and into a service valve of the pressurized system.

2. An apparatus for charging a pressurized system as recited in claim 1, wherein said tubular casing is fabricated out of transparent material and includes a plurality of gradient markings to aid in accurately dispensing a predetermined amount of the secondary fluid therefrom.

3. An apparatus for charging a pressurized system as recited in claim 1, wherein said canister further includes a cap, to engage with

said nozzle when said canister is not in use, so as to prevent leakage of the secondary fluid through said nozzle.

4. An apparatus for charging a pressurized system as recited in claim 1, wherein said release valve includes a closeable valve, which prevents any material from back flushing into said flexible conduit from the service valve of the pressurized system, and to allow said release valve to disconnect from the service valve of the pressurized system, to prevent leakage of the secondary fluid therefrom.

5. An apparatus for charging a pressurized system as recited in claim 1, wherein said release valve includes a snap lock fitting to engage with the service valve of the pressurized system.

6. An apparatus for charging a pressurized system as recited in claim 1, wherein said secondary fluid forcing means is an injection device.

7. An apparatus for charging a pressurized system as recited in claim 6, wherein said injection device includes:

a) a housing having a receptacle portion to receive the canister therein; and

b) a drive mechanism to force said piston into said tubular casing, to cause the secondary fluid to exit said nozzle through said fluidly coupling means, past the service valve and into the pressurized system.

8. An apparatus for charging a pressurized system as recited in claim 7, wherein said drive mechanism includes:

a) a hand grip integral with and extending downwardly on said housing;

b) a trigger pivotally mounted to said housing adjacent to said hand grip;

c) a central drive shaft extending longitudinally through said housing and transversely past a pivotal portion of said trigger;

d) a cylindrical head on an inner end of said central drive shaft, to engage with said piston of said canister;

- e) a first pawl spring biased on said central drive shaft forward the pivotal portion of said trigger; and
 - f) a second pawl spring biased on said central drive shaft rearward the pivotal portion of said trigger, and second pawl having a tongue extending out through a rear wall of said housing above said hand grip, so that when said trigger is squeezed said first pawl will move into contact with said central drive shaft, to push said central drive shaft forward with said cylindrical head making contact with said piston, while said second pawl prevents reverse movement of said central drive shaft, until the tongue disengages said second pawl, allowing said central drive shaft to be pulled back to a desired position.
9. A method of charging a pressurized air conditioning or refrigeration system with a secondary fluid, comprising the steps of:
- a) fluidly coupling the canister of the apparatus of claim 1, via a connector assembly, to a service valve of the pressurized system; and
 - b) forcing secondary fluid out of said canister, via the means for forcing the secondary fluid out of said canister of the apparatus of claim 1, through said connector assembly, past the service valve and into the pressurized system.
10. An apparatus for charging a pressurized air conditioning or refrigeration system with a secondary fluid, comprising:
- a) a canister containing a secondary fluid, wherein said secondary fluid comprises a fluid dye, wherein said canister includes a tubular casing for holding the secondary fluid therein, a nozzle integral with and extending out from a first end of said tubular casing and a piston inserted within an open second end of said tubular casing;
 - b) means for fluidly coupling said canister to the pressurized system by engagement of one end of said fluidly coupling means to said nozzle, wherein said fluidly coupling means is a connector assembly having a first end connected to said nozzle of said canister and a second end connected to a service valve of the pressurized system, wherein said connector assembly includes:
 - i) a flexible conduit,

ii) a thread on a first end of said flexible conduit, to engage with said nozzle of said canister, and

iii) a release valve on a second end of said flexible conduit, to engage with the service valve of the pressurized system,

wherein said connector assembly further includes a valve at one end of said flexible conduit, which prevents any material from back flushing into and contaminating the secondary fluid in said canister, and wherein said release valve includes a closeable valve, which prevents any material from back flushing into said flexible conduit from the service valve of the pressurized system, and to allow said release valve to disconnect from the service valve of the pressurized system, to prevent leakage of the secondary fluid therefrom; and

c) means for forcing secondary fluid out of said canister, through said fluidly coupling means and into a service valve of the pressurized system.

11. An apparatus for charging a pressurized system as recited in claim 10, wherein said tubular casing is fabricated out of transparent material and includes a plurality of gradient markings to aid in accurately dispensing a predetermined amount of the secondary fluid therefrom.

12. An apparatus for charging a pressurized system as recited in claim 11, wherein said canister further includes a cap, to engage with said nozzle when said canister is not in use, so as to prevent leakage of the secondary fluid through said nozzle.

13. An apparatus for charging a pressurized system as recited in claim 10, wherein said release valve includes a snap lock fitting to engage with the service valve of the pressurized system.

...

17. A canister for charging a closed, pressurized air conditioning or refrigeration system with a fluid, comprising:

a) a closed, non-pressurized cylindrical canister, wherein said canister has two ends, a first open end which connects to the system being charged and a second open end, and wherein said first open end comprises a nozzle;

b) a predetermined amount of said fluid,

wherein said fluid comprises a lubricant and a fluid dye for said air conditioning or refrigeration systems, and

wherein said fluid is maintained in said canister at about ambient pressure; and

c) a piston sealably disposed with said second open end of said canister,

wherein said canister is adapted to sealably and releasably connect to said pressurized air conditioning or refrigeration system via fluidly coupling means to form a closed binary system,

wherein said fluidly coupling means is a connector assembly having a first end connected to said nozzle of said canister and a second end connected to a service valve of the pressurized system,

wherein said connector assembly comprises:

i) a flexible conduit,

ii) a thread on a first end of said flexible conduit, to engage with said nozzle of said canister, and

iii) a release valve on a second end of said flexible conduit, to engage with the service valve of the pressurized system, and

wherein said connector assembly further comprises a valve at one end of said flexible conduit, which prevents any material from back flushing into and contaminating said fluid in said canister.

18. The canister of claim 17, wherein said canister is fabricated out of transparent material and includes a plurality of gradient markings; and wherein said nozzle is threaded.

19. The canister of claim 18, wherein said first open end comprises a threaded cap for engagement with said threaded nozzle.

20. The canister of claim 17, wherein said piston further comprises an O-ring.

21. The canister of claim 17, wherein said piston further comprises a recessed double O-ring.

...

38. An apparatus for charging a pressurized system as recited in claim 1, wherein said connector assembly further includes a valve at one end of said flexible conduit, which prevents any material from back flushing into and contaminating the secondary fluid in said canister.

The Witnesses

[48] The plaintiff called Philip Trigiani, Tony Ferraro and Jerome Lemon as witnesses.

[49] Mr. Trigiani has trained as an auto mechanic and has extensive experience working as an air conditioning technician at an automobile dealership. He is also, as noted earlier, the part owner of the plaintiff. As noted earlier, Mr. Trigiani is also the inventor of the SPOTGUN.

[50] Tony Ferraro was called as an expert witness. He is a licensed automotive technician who worked as a technician at an automotive garage and car dealership where specialties include the servicing of AC systems. Mr. Ferraro is the president of the plaintiff and the other co-owner of the plaintiff.

[51] Jerome Lemon was called as an expert witness for the plaintiff. He has a Bachelor of Science degree in geology. After leaving the army, he joined a company which provided air conditioning servicing for tractors, combines, buses and other off-road equipment. He then started

his own air conditioning servicing company. His company presently provides air conditioning servicing on large equipment for the City of Toronto and a number of large companies and equipment dealers. He has published articles on air conditioning servicing.

[52] The defendant called as witnesses, Professor Thomas R. Brown, James E. Ferris, Jonathan Cooper and Dr. Peter Richard Frise.

[53] Professor Thomas R. Brown has a Bachelor of Science in chemistry and physics and has worked in the automotive air conditioning industry for about 20 years. He teaches at Centennial College in Toronto where he instructs students to trouble shoot and repair air conditioning systems on cars. He also operated his own automotive air conditioning servicing shop.

[54] James E. Ferris was an engineer and inventor who in the early 1990s, invented a dye injection tool to inject oil and dye into an air conditioning system in order to detect leaks. His company's 204 QUEST Injector was filled with oil and dye.

[55] Jonathan Cooper is the person at Spectronics with primary responsibility for sales, marketing, customer service, advertising and some involvement in product development. The plaintiff had entered into a license agreement with Spectronics relating to the plaintiff's patents.

[56] Dr. Peter Richard Frise was called as an expert witness for the defendant. He holds a Bachelor of Science, Masters of Science and Ph. D. in mechanical engineering and has 32 years of practical experience as a mechanical engineer.

[57] As stated by the defendant, he:

(f) For the past eleven (11) years has been employed by the University of Windsor as:

(1) A Professor and Senior Industrial Research Chair;

(2) The Executive Director of Automotive Research & Studies;
and

(3) A Professor of Mechanical, Automotive & Materials Engineering.

(g) Was qualified by the Court as an expert in automotive mechanical engineering and research design, in the design and manufacture of automotive systems and an expert in systems, methods and tools of the hydraulic type which includes air conditioning systems.

[58] I must now determine the essential elements of the claims in issue.

'673 Patent

[59] The plaintiff's witness, Jerome Lemon stated at paragraph 16 of his affidavit (Exhibit 33):

Having reviewed the specification, my understanding of the invention disclosed and claimed in the '673 patent is methods and devices based on the idea of delivering a fluid into a closed and pressurized system from a pre-charged non-pressurized cartridge using a mechanical means to overcome the existing pressure

differential between the system and the cartridge. In my opinion this was a significant improvement on the existing flow through reservoir style available and discussed above.

I would adopt as my own, his statement.

[60] Claim 1

Claim 12 discloses a method for “charging a closed pressurized air conditioning or refrigeration fluid system with a secondary fluid”.

[61] My construction of claim 1 results in the following essential elements:

1. connecting an unpressurized container containing a predetermined amount of secondary fluid to the system by means of a charging conduit.
2. the container is a cylindrical cartridge which has a piston sealably disposed therein. The container has an end sealably attached to a charging conduit that is sealable and releasably connected to the pressurized system.
3. the secondary fluid is mechanically forced out of the said container through the charging conduit into the fluid system by means of the displacement of the said piston within the container.
4. disconnecting the container from the said system.

[62] The defendant’s experts construed the claim to mean that the container or cartridge had to be releasably received in cartridge receiver. I cannot see this being a requirement of claim 1. In fact, when claim 1 is studied further, it seems that it is stated that the charging conduit must be

“releasable” from the AC system. No such wording is used to state that the cartridge should be releasable from the cartridge receiver. This would support the proposition that releasability of the cartridge receiver is not an essential element of the claim.

[63] Claim 2

Claim 2 describes a method as set out in claim 1 in which the secondary fluid in the container is a dye. The essential element of claim 2 is that the secondary fluid is a dye.

[64] Claim 3

Claim 3 specifies that the secondary fluid in the container is an oil so the essential element of claim 3 is that “the secondary fluid is an oil”.

[65] Claim 4

Claim 4 describes the apparatus used to carry out the method described in claim 1. After reviewing the words of the claim, I am of the opinion that the essential elements of the claim are:

A closed unpressurized cylindrical cartridge containing a predetermined amount of a secondary fluid between a sealed piston and a first end sealably and releasably connectable to the pressurized a/c or refrigeration system by a charging conduit having ends sealably connectable to the first end of the cartridge and the system respectively; and

A cartridge receiver having a mechanically operated piston driving means to displace the piston in the cartridge to move the secondary fluid out of the cartridge through the conduit and into the system.

Again, as in my construction of claim 1, I can see no requirement in this claim that the cartridge be releasably received in the cartridge receiver. I am of the view that this is not an essential element of this claim. I would adopt my earlier statements on this issue and not accept the defendant's position that the cartridge must be releasably received in the cartridge receiver.

[66] The defendant also construed the claim as excluding any means for retaining the piston in the cylindrical cartridge. I do not accept the defendant's construction. In my opinion, there is a means of retaining the piston because the cartridge containing the piston is received in the cartridge receiver which, contains a means to drive the piston forward to expel the fluid. If the piston driving means is driving the piston forward, the piston is retained. The defendant's expert admits that the persons skilled in the art would understand the need to stop the piston and the means by which it could be stopped or retained in the cylinder (see Frise testimony, pages 218 to 220 and 222 to 225).

[67] The mechanical driving means are not detailed in the claim but I would construe the claim to include mechanical driving means which would use mechanical advantage to overcome the pressure differential. The devices would be a lever action device or a screw action device.

[68] Claim 7

The essential element of claim 7 is that the secondary fluid is a dye.

[69] Claim 8

The essential element of claim 8 is that the secondary fluid is an oil.

[70] Claim 9

This claim specifies the operating parameters for the device to be in the range of -30 psi to 300 psi.

[71] Claim 10

The essential element of claim 10 is that the cartridge is disposable.

[72] Claim 14

My construction of claim 14 gives the following essential elements:

1. a cylindrical shaped canister.
2. one end of the canister is to be attached to the system being charged and is adapted for such attachment.
3. a predetermined amount of secondary fluid comprised of a lubricant (oil) and dye is contained in the cylinder or canister at about ambient temperature.
4. there is a piston sealably disposed in the second end of the said canister.
5. the canister is to be connected to the system to form a closed binary system.

[73] Claim 15

Claim 15 states that the canister of claim 14 and its connections must be capable of withstanding pressure in the range of -30 psi to 300 psi. Mr. Brown's testimony, the defendant's expert, seems to indicate that he believes the cartridges in isolation should be able to withstand the stated pressures. I do not agree. Claim 9 includes the element that the cartridge be "received" in the

cartridge receiver. This is not “in isolation”. As well, claim 15 states that the canisters and “its connections are capable of withstanding the stated pressures”. Again, this is not “in isolation”.

[74] Claim 16

The essential element of this claim is that the canisters or cartridges be disposable.

'024 Patent

[75] I will now proceed to construe the claims of the '024 Patent that are in issue and give my construction of these claims.

[76] I have read the specification of the '024 Patent and I have concluded that the invention disclosed and claimed in the '024 Patent is an improved apparatus of the same general type as described in the '673 Patent.

[77] The '024 Patent is to be construed as of June 8, 1999 which was the date on which it was published.

[78] Claim 1

Claim 1 teaches an apparatus for charging a pressurized air conditioning or refrigeration system with a secondary fluid (dye). The secondary fluid is contained in a tubular canister with a nozzle integral with and extending out from one end of the canister and a piston at the other end of

the canister. The canister containing the secondary fluid is fluidly coupled to the pressurized system by means of a connection assembly. The connector assembly has one end connected to the nozzle of the canister and the other end is connected to the service valve of the pressurized system. The connector assembly consists of a flexible conduit with a connector on one end to connect with the canister nozzle and a release valve on the on the other end to engage with the service valve of the pressurized system. The apparatus also has to have a means of forcing the secondary fluid out of the canister through the fluidly coupled means and into the service valve of the pressurized system.

[79] I construe Claim 1 to contain the following essential elements:

1. An apparatus for charging a pressurized air conditioning system or refrigeration system with a secondary fluid (dye).
2. A tubular canister containing the secondary fluid (dye) with an integral nozzle at one end and a piston at the other end (inserted in the canister).
3. A flexible conduit with a connector for the nozzle of the canister and a valve on the other end adapted to couple with the service valve of the pressurized system.
4. A means for forcing the secondary fluid (dye) out of the canister through the fluidly coupling means into the pressurized system.

[80] Claim 2

Claim 2 is for an apparatus for charging a pressurized system as recited in claim 1. In Claim 2, the tubular casing required by the apparatus is made out of transparent material and a number of

gradient markings to help in accurately dispensing a predetermined amount of secondary fluid from the tubular casing.

[81] The essential element of claim 2 is:

1. A tubular canister that has a casing fabricated from a transparent material with gradient markings to aid in the accurate dispensing of a predetermined amount of the secondary fluid into the pressurized system.

[82] Claim 3

Claim 3 adds a cap to the canister contained in the apparatus of claim 1. The cap is to engage with the said nozzle when the canister is not in use so as to prevent leakage of the secondary fluid through the nozzle.

[83] The essential element of claim 3 is a cap to engage with said nozzle when the canister is not in use to prevent leakage of the secondary fluid through the nozzle.

[84] Claim 5

Claim 5 specifies that the release valve for the apparatus described in claim 1 includes a snap locking fitting to engage with the service valve of the pressurized system.

[85] The essential element of claim 5 is a snap lock fitting.

[86] Claim 6

This claim states that the secondary fluid forcing means for the apparatus recited in claim 1 is an injection device.

[87] The essential element of claim 6 is an injection device.

[88] Claim 7

Claim 7 states that the injection system of the apparatus for charging a pressurized system as recited in claim 6 includes a housing that has a receptacle portion to receive the canister therein. The injection device also includes a drive mechanism to force the said piston into the tubular casing to cause the secondary fluid to exit the nozzle through the said fluidly coupling means, past the service valve and into the pressurized system.

[89] The essential element of claim 7 is an injection device housing and a drive mechanism adapted to interact with the canister so as to drive the piston into the canister.

[90] Claim 9

My construction of claim 9 is that it describes a method of charging a pressurized air conditioning or refrigeration system with a secondary fluid by:

1. Fluidly coupling the canister of the apparatus of claim 1, by means of a connector assembly, to the service valve of the pressurized system; and

2. Forcing the secondary fluid out of the canister of the apparatus by the means for forcing the secondary fluid out of the said canister of the apparatus of claim 1 through the connector assembly past the service valve and into the pressurized system.

[91] The essential elements of this claim are the essential elements of claim 1 to charge a pressurized system with fluid.

[92] Claim 17

I construe claim 17 to describe a canister for charging a closed pressurized air conditioning system with a fluid. The system would include a closed non-pressurized cylindrical canister with two ends; one end (first) which connects to the system being charged and the other or second open end. The first open end comprises a nozzle. The connector also has a predetermined amount of the said fluid in it. The fluid comprises a lubricant and a fluid dye for pressurized air conditioning or refrigeration systems. The fluid is at about ambient temperature. There is a piston sealable disposed within the second open end of the canister. The canister is adapted to sealably and releasably connect to the pressurized air conditioning or refrigeration system by a fluidly coupling means to form a closed binary system. The fluid coupling means is a connector assembly having a one (first) end connected to the nozzle of the canister. The second end of the connector assembly is attached to a service valve of the pressurized system. The connector system is made up of:

1. a flexible conduit.

2. a thread on the first end of the flexible conduit to engage with the nozzle of the canister.

3. a release valve on the second end of the flexible conduit to engage with the service valve of the pressurized system and the connector assembly further has a valve at one end of the said flexible conduit which prevents any material from back flushing into and contaminating any fluid in the canister.

[93] I find the essential elements of claim 17 to be:

1. A cylindrical canister for charging a pressurized system with fluid containing a fluid dye at about ambient temperature.

2. It is a threaded nozzle on one end.

3. It has a piston which seals the other end.

4. The canister nozzle is adapted to be engaged by a threaded connection on a conduit that has a valve to prevent material passing from the conduit into the canister and a valve adapted to engage with the service part of the system.

[94] Claim 18

Claim 18 describes the canister of claim 17 as being made out of transparent material with a number of gradient markings and with a threaded nozzle.

[95] The essential element of claim 18 is that the canister is manufactured of a transparent material and it has gradient markings and a threaded nozzle.

[96] Claim 19

The first open end of the canister of claim 18 has a threaded cap for engagement with the threaded nozzle.

[97] The essential element of claim 19 is that there is a threaded cap for the canister which prevents leaks and contamination.

[98] Claim 20

Claim 20 adds the feature of claim 17 that the piston has an O-ring. An O-ring makes a seal between the outer surface of the piston and the inner surface of the canister to prevent fluid from leaking back past the piston while under force from the piston driving mechanism.

[99] The essential element of claim 20 is an O-ring.

[100] Claim 38

Claim 38 describes a connector assembly for the apparatus for charging a pressurized system as recited in claim 1, which further includes a valve at one end of the flexible conduit, which prevents any material from back flushing into and contaminating the secondary fluid in the canister.

[101] The essential element of claim 38 is an anti-back flow valve on the conduit.

[102] **Issues 2, 3 and 4**

Does the REVOLVER product as sold by the defendant, and/or used in the manner directed by the defendant, infringe any of claims 1, 2, 3, 4, 7, 8, 9, 10, 14, 15 or 16 of the '673 Patent and/or any of claims 1, 3, 5, 6, 7, 9, 17, 19, 20 or 38 of the '024 Patent?

Does the DYE STICK product as sold by the Defendant, and/or used in the manner directed by the Defendant, infringe any of claims 1, 2, 3, 4, 7, 8, 9, 10, 14, 15 or 16 of the '673 patent and/or any of claims 1, 2, 3, 5, 6, 7 or 9 of the '024 patent?

Does the RETRO STICK product as sold by the Defendant, and/or used in the manner directed by the Defendant incorporate the invention claimed in any of claims 1, 3, 4, 8, 9 or 10 of the '673 patent?

The *Patent Act* does not define infringement but section 42 of the Act states:

42. Every patent granted under this Act shall contain the title or name of the invention, with a reference to the specification, and shall, subject to this Act, grant to the patentee and the patentee's legal representatives for the term of the patent, from the granting of the patent, the exclusive right, privilege and liberty of making, constructing and using the invention and selling it to others to be used, subject to adjudication in respect thereof before any court of competent jurisdiction.

[103] With respect to infringement, the Supreme Court of Canada in *Monsanto Canada Inc. v. Schmeiser*, [2004] 1 S.C.R. 902 at paragraphs 32 to 58 stated:

32. Three well-established rules or practices of statutory interpretation assist us further. First, the inquiry into the meaning of "use" under the *Patent Act* must be purposive, grounded in an understanding of the reasons for which patent protection is accorded. Second, the inquiry must be contextual, giving consideration to the other words of the provision. Finally, the inquiry must be attentive to the wisdom of the case law. We will discuss each of these aids to interpretation briefly, and then apply them to the facts of this case.

33. We return first to the rule of purposive construction. Identifying whether there has been infringement by use, like construing the claim, must be approached by the route of purposive construction: *Free World Trust v. Électro Santé Inc.*, [2000] 2 S.C.R. 1024, 2000 SCC 66. "[P]urposive construction is capable of expanding or limiting a literal [textual claim]": *Whirlpool, supra*, at para. 49. Similarly, it is capable of influencing what amounts to "use" in a given case.

34. The purpose of s. 42 is to define the exclusive rights granted to the patent holder. These rights are the rights to full enjoyment of the monopoly granted by the patent. Therefore, what is prohibited is "any act that interferes with the full enjoyment of the monopoly granted to the patentee": H. G. Fox, *The Canadian Law and Practice Relating to Letters Patent for Inventions* (4th ed. 1969), at p. 349; see also *Lishman v. Erom Roche Inc.* (1996), 68 C.P.R. (3d) 72 (F.C.T.D.), at p. 77.

35. The guiding principle is that patent law ought to provide the inventor with "protection for that which he has actually in good faith invented": *Free World Trust, supra*, at para. 43. Applied to "use", the question becomes: *did the defendant's activity deprive the inventor in whole or in part, directly or indirectly, of full enjoyment of the monopoly conferred by law?*

...

37. As a practical matter, inventors are normally deprived of the fruits of their invention and the full enjoyment of their monopoly when another person, without licence or permission, uses the invention to further a business interest. . . .

...

43. Infringement through use is thus possible even where the patented invention is part of, or composes, a broader unpatented structure or process. This is, as Professor Vaver states, an expansive rule. It is, however, firmly rooted in the principle that the main purpose of patent protection is to prevent others from depriving the inventor, even in part and even indirectly, of the monopoly that the law intends to be theirs: only the inventor is entitled, by virtue of the patent and as a matter of law, to the *full* enjoyment of the monopoly conferred.

44. Thus, in *Saccharin Corp. v. Anglo-Continental Chemical Works Ltd.* (1900), 17 R.P.C. 307 (H.C.J.), the court stated, at p. 319:

By the sale of saccharin, in the course of the production of which the patented process is used, the Patentee is deprived of some part of the whole profit and advantage of the invention, and the importer is indirectly making use of the invention.

This confirms the centrality of the question that flows from a purposive interpretation of the *Patent Act*: did the defendant, by his acts or conduct, deprive the inventor, in whole or in part, directly or indirectly, of the advantage of the patented invention?

45. In determining whether the defendant "used" the patented invention, one compares the object of the patent with what the defendant did and asks whether the defendant's actions involved that object. In *Betts v. Neilson* (1868), L.R. 3 Ch. App. 429 (aff'd (1871), L.R. 5 H.L. 1), the object of the patent was to preserve the contents of bottles in transit. Though the bottles were merely shipped unopened through England, the defendant was held to have used the invention in England because, during its passage through that country, the beer was protected by the invention. Lord Chelmsford said, at p. 439:

It is the employment of the machine or the article for the purpose for which it was designed which constitutes its active use; and whether the capsules were intended for ornament, or for protection of the contents of the bottles upon which they were placed, the whole time they were in England they may be correctly said to be in active use for the very objects for which they were placed upon the bottles by the vendors.

46. In fact, the patented invention need not be deployed precisely for its intended purpose in order for its object to be involved in the defendant's activity.

47. Moreover, as Lord Dunedin emphasized in *British United Shoe Machinery Co. v. Simon Collier Ld.* [sic] (1910), 27 R.P.C. 567 (H.L.), *possession as a stand-by has "insurance value"*, as for example in the case of a fire extinguisher. The extinguisher is "used" to provide the means for extinguishment should the need arise. This

is true, too, of a spare steam engine which is "intended in certain circumstances to be used for exactly the purpose for which the whole machine is being actually used" (p. 572). Exploitation of the stand-by utility of an invention uses it to advantage.

...

49. The general rule is that the defendant's intention is irrelevant to a finding of infringement. The issue is "what the defendant does, not ... what he intends": *Stead v. Anderson* (1847), 4 C.B. 806, 136 E.R. 724 (C.P.), at p. 736; see also *Hoechst Celanese Corp. v. BP Chemicals Ltd.* (1998), 25 F.S.R. 586 (Pat. Ct.), at p. 598; *Illinois Tool Works Inc. v. Cobra Anchors Co.* (2002), 221 F.T.R. 161, 2002 FCT 829, at paras. 14-17; *Computalog Ltd. v. Comtech Logging Ltd.* (1992), 44 C.P.R. (3d) 77 (F.C.A.), at p. 88. And the governing principle is whether the defendant, by his actions, activities or conduct, appropriated the patented invention, thus depriving the inventor, in whole or part, directly or indirectly, of the full enjoyment of the monopoly the patent grants.

...

58. These propositions may be seen to emerge from the foregoing discussion of "use" under the *Patent Act*:

1. "Use" or "exploiter", in their ordinary dictionary meaning, denote utilization with a view to production or advantage.
2. The basic principle in determining whether the defendant has "used" a patented invention is whether the inventor has been deprived, in whole or in part, directly or indirectly, of the full enjoyment of the monopoly conferred by the patent.
3. If there is a commercial benefit to be derived from the invention, it belongs to the patent holder.
4. It is no bar to a finding of infringement that the patented object or process is a part of or composes a broader unpatented structure or process, provided the patented invention is significant or important to the defendant's activities that involve the unpatented structure.
5. Possession of a patented object or an object incorporating a patented feature may constitute "use" of the object's stand-by or insurance utility and thus constitute infringement.

6. Possession, at least in commercial circumstances, raises a rebuttable presumption of "use".

7. While intention is generally irrelevant to determining whether there has been "use" and hence infringement, the absence of intention to employ or gain any advantage from the invention may be relevant to rebutting the presumption of use raised by possession.

[104] A patent is said to be infringed if a person makes uses or sells, constructs an article or method that includes each of the “essential elements “of any one of the claims of the patent (see *Free World Trust v. Électro Santé Inc.*, [2000] 2 S.C.R. 1024 and *Canamould Extrusions Ltd. v. Driangle Inc.*, [2003] F.C.J. No. 338).

REVOLVER Infringement

[105] According to the evidence on discovery and read in, the defendant’s REVOLVER includes three components – injectors, cartridges and hoses (Exhibit P-36, tab 3).

[106] Paragraph 24 of the agreed statement of facts states:

The Defendant commenced sales of the REVOLVER dye injection system in Canada about 2003. The Defendant sells REVOLVER injectors, cartridges and hoses separately, and as part of kits that may also include UV lights, adapters and other related items, for the express purpose of injecting a UV dye into a closed pressurized AC system.

[107] The defendant provides instructions on how to use the components for their intended purpose.

'673 Patent - REVOLVER

[108] I will first deal with the alleged infringement of claims 1, 2 and 3 of the '673 Patent which are method claims.

Claim 1

[109] In my view, the REVOLVER infringes claim 1 as all the essential elements of the claim are present in the method of use of the products. The REVOLVER has a cylindrical cartridge received by a cartridge receiver. In the REVOLVER, the receiver is the part designated by the defendant as the breach. It is designed to hold both the cartridge and the piston forcing mechanism which is called the "ram". The receiver is designed to be mechanically forced down over the cartridge by rotating the receiver assembly and with an internal mechanism to drive the piston into the cartridge forcing out the fluid. The cartridge is sealably connected secured to a charging conduit that is sealably and releasably connected to the pressurized system.

[110] The defendant states that there is no infringement by the REVOLVER since the cartridge in the REVOLVER is a significant departure from the cylindrical form. I accept the evidence of Jerome Lemon that the REVOLVER uses a generally cylindrical canister. In any event, the interior of the canister is certainly cylindrical.

[111] The defendant also submits that the cartridge must be received within the cartridge receiver rather than by the receiver. That is not my construction of claim 1 nor is it an essential element of claim 1.

[112] The defendant also submitted there is no infringement as the cartridge had to be “releasably” received. Releasably is not an essential element of the claim (see my analysis in paragraph 62 of the reasons under construction of claim 1).

Claim 2

[113] The REVOLVER infringes claim 2 because the secondary fluid in the canister is a dye and it includes the elements of claim 1.

Claim 3

[114] The REVOLVER infringes claim 3 for the same reason as claim 2 except that the secondary fluid is an oil.

Claim 4

[115] Claim 4 is an apparatus claim. In my opinion, the REVOLVER includes all the essential elements of claim 4. It has the injector (cartridge receiver) and hose (charging conduit) and cartridge.

[116] The defendant said there is no infringement because the cartridge is not cylindrical. I would repeat my analysis from claim 1.

[117] As a result, the REVOLVER infringes claim 4.

Claims 7 and 8

[118] The defendant submits there is no infringement of claims 7 and 8 for the reasons stated in Appendix “C” to the defendant’s memorandum of fact and law under claim 4. These reasons would be because the cartridges in the REVOLVER are not cylindrical and because the cartridge is not received in the receiver. I have dealt with these arguments under claim 1 and did not accept them.

[119] I am of the opinion that the defendant’s REVOLVER infringes claims 7 and 8 for the reasons outlined in the analysis of claims 2 and 3.

Claim 9

[120] Jerome Lemon conducted a pressure test of the cartridge and connections of the REVOLVER and found that it could withstand the pressures stipulated by claim 9 for the '673 Patent for the cartridges and connections of claims 4 to 8. He found that the defendant's REVOLVER product could withstand these pressures.

[121] The defendant offered the evidence of Professor Brown that he tested the REVOLVER cartridge in isolation and not while in the REVOLVER's breech. However, claim 9 speaks of the "said cartridge" and its connections. In my view, testing the cartridge in isolation does not establish that the REVOLVER product cannot withstand the required pressures.

[122] Accordingly, I find that the defendant's REVOLVER infringes claim 9 of the '673 Patent.

Claim 10

[123] The defendant's REVOLVER clearly infringes claim 10 as the cartridges of the REVOLVER are disposable. This was an essential element of claims 4 to 9.

Claims 14, 15 and 16

[124] These claims deal with the canister part of the apparatus. I have reviewed the essential elements of these claims and I am of the view that the defendant's REVOLVER infringes each of these claims.

[125] With respect to claims 15 and 16, I would repeat the remarks contained under the infringement of claims 15 and 16.

'673 Patent – THE DYE STICK

Claim 1

[126] I am of the view that the DYE STICK infringes claim 1 of the '673 Patent for the same reasons as expressed for the REVOLVER.

[127] The defendant submitted that there was no infringement because it was an essential element of claim 1 that the cartridge receiver "releasably" received the cartridge. My construction of claim 1 did not include as an essential element that the cartridge be "releasably" received but only received. I would adopt my reasoning contained in paragraphs 62 and 112 of these reasons. I cannot accept this argument.

[128] The defendant also submitted that there was no infringement because in the defendant's products, the cartridge is not received within the alleged receiver. I adopt my remarks in paragraph 111 of these reasons and reject this argument.

Claim 2

[129] The DYE STICK infringes claim 2 of the '673 Patent for the same reasons as set out for the REVOLVER with respect to claim 2.

Claim 3

[130] The DYE STICK infringes claim 3 of the '673 Patent for the same reasons as set out for the REVOLVER for claim 3.

Claim 4

[131] The DYE STICK infringes claim 4 of the '673 Patent for the same reasons as set out for the REVOLVER with respect to claim 4.

Claims 7 and 8

[132] The DYE STICK infringes claims 7 and 8 for the same reasons as set out for the REVOLVER for claims 7 and 8 respectively.

Claim 9

[133] Jerome Lemon's evidence is to the effect that the DYE STICK would withstand the pressures stipulated by claim 9. I accept this evidence and accordingly, the DYE STICK infringes claim 9. With respect to the defendant's arguments with respect to the claim 9 reasons, I would adopt my findings for these as set out in claim 4.

Claim 10

[134] The defendant's DYE STICK cartridge is not sold separately but in my view, the cartridge as sold in the DYE STICK is not meant to be refilled or resealed. The DYE STICK is sold as a kit without the hose assemblies. I conclude that the DYE STICK's cartridge is disposable. With respect to the defendant's arguments with respect to the claim 10 reasons, I would adopt my findings for these as set out in claim 4.

Claim 14

[135] Claim 14 deals with the canister used to charge the pressurized refrigeration or air conditioning system. The defendant states there is no infringement because the canister is not cylindrical. I do not agree and would adopt my reasons for this conclusion from the claim 1 reasons for the REVOLVER product.

[136] The defendant's DYE STICK infringes claim 14 as all the other essential elements of claim 14 are taken.

Claim 15

[137] Claim 15 deals with the pressures that the canister and its connections must be capable of withstanding. The defendant states there is no infringement by the DYE STICK because it is not cylindrical. I do not agree and I would repeat and adopt my reasons from claim 1 with respect to the shape of the canister. With respect to the canister and the ability of its connections to withstand the stated pressures, I would accept Jerome Lemon's evidence that the DYE STICK cartridge would withstand the required pressures.

[138] I am satisfied that the DYE STICK takes all the essential elements of claim 15 and that it infringes this claim.

Claim 16

[139] This claim deals with the disposability of the canister. I would repeat and adopt my reasoning for claim 10 with respect to the disposability of the canister. I find that the DYE STICK has all the essential elements of claim 16 and that it infringes this claim.

RETRO STICK Infringement of the '024 Patent

[140] There is no infringement of the '024 Patent by THE RETRO STICK as it does not use dye.

Infringement of the '024 Patent by THE REVOLVER and THE DYE STICK

[141] In his expert affidavit, Jerome Lemon stated at paragraph 57 with respect to claims, 1, 3, 5, 6, 7 and 9 of the '024 Patent:

With regards to the REVOLVER and DYE STICK products, in my opinion, the products as sold and/or used include all elements specified in Claims 1, 3, 5, 6, 7, 9 . . . of the '024 Patent. More specifically, both the REVOLVER and DYE STICK products as sold as kits and as used:

- are apparatus for charging and a/c or refrigeration system with a secondary fluid
- have a tubular canister containing the secondary fluid with an integral nozzle at one end and a piston within the second open end
- have a flexible conduit with a connector for the nozzle of the canister at one end and a release valve including a valve assembly designed to open upon connection to the service valve of the pressurized system and to close upon disconnection

- have a means for forcing the dye from the canister through the fluidly coupling means into the pressurized system by engaging with the piston using a forcing means (in this case a screw type mechanical forcing means to drive the piston)
- when sold and when not in use the tubular canisters have a cap threaded onto the nozzle to prevent leakage
- have a coupler designed to function as discussed above as a snap lock style fitting to engage the service valve on the pressurized system
- are injection devices
- have a housing that receives the canister and a drive mechanism to force the piston into the tubular casing as discussed above
- are used according to the elements of Claim 9
- have canisters of cylindrical shape containing fluid at about ambient pressure
- the canisters have threaded nozzles adapted to be engaged by a threaded connection on the conduit
- have an integral o-ring on the external surface of the piston sealed against the internal surface of the canister

[142] At paragraph 58 of his expert affidavit, Mr. Lemon states in relation to claims 17, 19, 20 and 38 of the '024 Patent:

With respect to claims 17, 19, 20 and 38, the REVOLVER product, in my opinion, includes all the elements required by this claim. Specifically, in addition to the elements noted above, the REVOLVER products as sold in kits also include a valve to prevent the passage of material from the conduit to the canister at the end of the conduit to be engaged with the nozzle of the canister using a spring loaded anti backflow sealing plug type design.

And at paragraph 59, Mr. Lemon stated, in relation to claim 2:

With respect to claim 2, in my opinion the DYE STICK infringes since it includes the elements of the independent claims and the tubular casing of the canister is manufactured of a transparent material and has gradient markings to aid in accurately dispensing the secondary fluid, meeting the essential element added by the claims.

[143] With respect to the defendant's arguments that canisters and not cylindrical, I adopt my earlier findings.

[144] I accept the evidence of Mr. Lemon and accordingly, I find that the REVOLVER and DYE STICK products infringe claims 1, 3, 5, 6, 7 and 9 of the '024 Patent. The REVOLVER product further infringes claims 17, 19, 20 and 38 of the '024 Patent and the DYE STICK further infringes claim 2.

THE RETRO STICK Infringement

[145] The plaintiff at paragraph 84 of its closing argument stated:

It is only claims 1, 3, 4, 8, 9 and 10 of the '673 patent that are alleged to be infringed by the RETRO STICK product since the other claims in issue stipulate that the secondary fluid is a dye, which was not found in the RETRO STICK. The evidence is clear that the RETRO STICK is identical to the DYE STICK for the purposes of analyzing infringement of claims 1, 3, 4, 8, 9 and 10. For the same reasons as discussed in respect of infringement of the identified claims by the DYE STICK, it is submitted that the RETRO STICK as sold by the Defendant and used by end consumers clearly includes all elements of and infringes claims 1, 3, 4, 8, 9 and 10 of the '673 patent.

[146] I agree with this statement and find that the RETRO STICK product infringes claims 1, 3, 4, 8, 9 and 10 of the '673 Patent.

[147] **Issue 5**

Does the agreement between the defendant and Spectronics provide the defendant with a defence to infringement of the '673 or '024 Patents in respect of the REVOLVER injectors and REVOLVER cartridges obtained from suppliers by Spectronics and then provided by Spectronics to the defendant pursuant to the terms of the agreement?

Spectronics Agreement with the Plaintiff and Spectronics' Supply Agreement with the Defendant

[148] In order to determine whether the defendant has a defence flowing from the agreement, it is necessary to interpret the license agreement. In *Eli Lilly & Co. v. Novopharm Ltd.*, [1998] 2 S.C.R. 129 at paragraphs 54 and 56, the Court stated:

54. The trial judge appeared to take Consolidated-Bathurst to stand for the proposition that the ultimate goal of contractual interpretation should be to ascertain the true intent of the parties at the time of entry into the contract, and that, in undertaking this inquiry, it is open to the trier of fact to admit extrinsic evidence as to the subjective intentions of the parties at that time. In my view, this approach is not quite accurate. The contractual intent of the parties is to be determined by reference to the words they used in drafting the document, possibly read in light of the surrounding circumstances which were prevalent at the time. Evidence of one party's subjective intention has no independent place in this determination.

...

56. When there is no ambiguity in the wording of the document, the notion in Consolidated-Bathurst that the interpretation which produces a "fair result" or a "sensible commercial result" should be adopted is not determinative. Admittedly, it would be absurd to adopt an interpretation which is clearly inconsistent with the commercial interests of the parties, if the goal is to ascertain their true contractual intent. However, to interpret a plainly worded document in accordance with the true contractual intent of the parties is not difficult, if it is presumed that the parties intended the legal consequences of their words. This is consistent with the following dictum of this Court, in *Joy Oil Co. v. The King*, [1951] S.C.R. 624, at p. 641:

. . . in construing a written document, the question is not as to the meaning of the words alone, nor the meaning of the writer alone, but the meaning of the words as used by the writer.

[149] Justice Aalto in *Dumbrell v. The Regional Group of Companies Inc.* (2007), 85 O.R. (3d) 616 (Ont. C.A.) at pages 630 to 631 stated:

[51] *Eli Lilly, supra*, instructs that the words of the contract drawn between the parties must be the focal point of the interpretative exercise. The inquiry must be into the meaning of the words and not the subjective intentions of the parties. In this sense, my approach is textualist. However, the meaning of the written agreement must be distinguished from the dictionary and syntactical meaning of the words used in the agreement. Lord Hoffmann observed in *Investors Compensation Scheme Ltd., supra*, at p. 115 All E.R.:

The meaning which a document (or any other utterance) would convey to a reasonable man is not the same thing as the meaning of its words. The meaning of words is a matter of dictionaries and grammars; the meaning of the document is what the parties using those words against the relevant background would reasonably have been understood to mean.

[52] No doubt, the dictionary and grammatical meaning of the words (sometimes called the "plain meaning") used by the parties will be

important and often decisive in determining the meaning of the document. However, the former cannot be equated with the latter. The meaning of a document is derived not just from the words used, but from the context or the circumstances in which the words were used. Professor John Swan puts it well in *Canadian Contract Law* (Markham, Ont.: Butterworths, 2006) at 493:

There are a number of inherent features of language that need to be noted. Few, if any words, can be understood apart from their context and no contractual language can be understood without some knowledge of its context and the purpose of the contract. Words, taken individually, have an inherent vagueness that will often require courts to determine their meaning by looking at their context and the expectations that the parties may have had.

[53] The text of the written agreement must be read as a whole and in the context of the circumstances as they existed when the agreement was created. The circumstances include facts that were known or reasonably capable of being known by the parties when they entered into the written agreement: see *BG Checo International Ltd. v. British Columbia Hydro and Power Authority*, [1993] 1 S.C.R. 12, [1993] S.C.J. No. 1, at pp. 23-24 S.C.R.; *H.W. Liebig & Co. v. Leading Investments Ltd.*, [1986] 1 S.C.R. 70, [1986] S.C.J. No. 6, at pp. 80-81 S.C.R., La Forest J.; *Prenn v. Simmonds*, [1971] 1 W.L.R. 1381, [1971] 3 All E.R. 237 (H.L.), at pp. 1383-84 W.L.R.; Staughton, "How Do the Courts Interpret Commercial Contracts?", *supra*, at 307-08.

[54] A consideration of the context in which the written agreement was made is an integral part of the interpretative process and is not something that is resorted to only where the words viewed in isolation suggest some ambiguity. To find ambiguity, one must come to certain conclusions as to the meaning of the words used. A conclusion as to the meaning of words used in a written contract can only be properly reached if the contract is considered in the context in which it was made: see McCamus, *The Law of Contracts* (Toronto: Irwin Law, 2005) at 710-11.

[55] There is some controversy as to how expansively context should be examined for the purposes of contractual interpretation: see Geoff R. Hall, "A Curious Incident in the Law of Contract: The Impact of 22 Words from the House of Lords" (2004) 40 Can. Bus. L.J. 20.

Insofar as written agreements are concerned, the context, or as it is sometimes called the "factual matrix", clearly extends to the genesis of the agreement, its purpose, and the commercial context in which the agreement was made: *Kentucky Fried Chicken Canada, a Division of Pepsi-Cola Canada Ltd. v. Scott's Food Services Inc.*, [1998] O.J. No. 4368, 114 O.A.C. 357 (C.A.), at p. 363 O.A.C.

[56] I would adopt the description of the interpretative process provided by Lord Justice Steyn, "The Intractable Problem of the Interpretation of Legal Texts", *supra*, at 8:

In sharp contrast with civil legal systems the common law adopts a largely objective theory to the interpretation of contracts. The purpose of the interpretation of a contract is not to discover how the parties understood the language of the text, which they adopted. The aim is to determine the meaning of the contract against its objective contextual scene. By and large the objective approach to the question of construction serves the needs of commerce.
(Emphasis added)

[150] The evidence filed in this case shows that prior to entering this agreement Spectronics had adopted the plaintiff's inventive concept and developed its own product for sale. The plaintiff informed Spectronics that it was infringing its patents. As a result, an agreement was entered into between Spectronics and the plaintiff whereby Spectronics under license could sell the offending products and pay a royalty to the plaintiff. No evidence was presented to show that Spectronics was selling other persons offending products. The evidence was that Spectronics was only selling its own screw-type injector at the date of the agreement. Mr. Trigiani testified that he was only aware of Spectronics manufacturing and selling products it designed.

[151] Then in June 2006, Spectronics entered into a supply agreement with the defendant. Before entering into the supply agreement, the defendant obtained components for its Revolver dye injection system directly from other suppliers and assembled and filled the dye cartridges itself. Under the supply agreement, Spectronics obtained the exact same components, the injectors and the components for cartridges from the same defendant's suppliers. The same tooling and tools are used to manufacture the components and the tooling is owned by the defendant. In addition, the cartridges that are sold pursuant to the supply agreement are assembled and filled with dye by Spectronics. The dye is made according to the defendant's prior formulation.

[152] When the defendant receives the Revolvers and cartridges from Spectronics, it sells them in two ways: 1) separately for use with the other components of the Revolver dye injection system and 2) they are packaged together in a kit which includes the Revolver, the cartridges and a hose obtained from another supplier. As well, there are instructions on how to use this system.

[153] Prior to entering the supply agreement, Spectronics complained to the plaintiff about the infringing activities of the defendant.

[154] I have reviewed the confidential license agreement as a whole and in particular, clause 1.2 and the remainder of the first page of the agreement and applying the principles mentioned above for construing agreements and I am of the opinion that the agreement is only to grant a license for Spectronics to make, use or sell Spectronics products not products of third parties. I come to this conclusion after reading the license agreement "as a whole and in the context of the circumstances

as they existed when the supply agreement was created” (see *Dumbrell* above). The circumstances known to the parties at the time the agreement was entered into are to be considered. For example, Spectronics was then only selling its own screw-type injectors. As well, Mr. Trigiani testified that he was only aware of Spectronics manufacturing and selling products is designed.

[155] I therefore find that the Spectronics supply agreement is not a defence to infringement that is available to the defendant with respect to the Revolver injectors and Revolver cartridges obtained from Spectronics.

[156] **Issue 6**

Are any of claims 1, 2, 3, 4, 7, 8, 9, 10, 14, 15 or 16 of the ‘673 Patent invalid on the basis that:

- (a) The claim is anticipated by the QUEST reference;
- (b) Claim 14 is anticipated by the BRADLEY, CLASSIC or ROBINAIR references

respectively;

(c) The claim is obvious as a result of the references and common general knowledge identified by the defendant’s experts;

(d) The claim is over broad or lacking utility as a result of the failure to specify a means for retaining the piston in the cylinder;

(e) The application that issued into the ‘673 Patent failed to comply with section 37 due to a lack of drawings in the specification;

(f) The plaintiff failed to comply with paragraph 73(1)(a) of the *Patent Act* in view of the fact that the plaintiff filed minutes from a hearing before the European Patent Office (EPO) in respect of the corresponding European application; or

(g) The '673 Patent is void pursuant to subsection 53(1) of the *Patent Act* on the basis that:

the petition contains an untrue material allegation, namely that Michael Kroll and Phil Trigiani were the owners of the invention; or
as a result of the omission of drawings of the apparatus in the specification, it contains more or less than is necessary for obtaining the end for they purported to be made.

[157] **Issue 6.(a)**

Anticipation – The Law

Novelty (anticipation) is governed by section 28.2 of the *Patent Act* which reads in part as follows:

28.2(1) The subject-matter defined by a claim in an application for a patent in Canada (the "pending application") must not have been disclosed

(a) 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 subject-matter became available to the public in Canada or elsewhere;

(b) before the claim date by a person not mentioned in paragraph (a) in such a manner that the subject-matter became available to the public in Canada or elsewhere;

(c) in an application for a patent that is filed in Canada by a person other than the applicant, and has a filing date that is before the claim date; or

...

[158] The Supreme Court of Canada in *Free World Trust* above, stated at paragraphs 25, 26 and

27:

25. Anticipation by publication is a difficult defence to establish because courts recognize that it is all too easy after an invention has been disclosed to find its antecedents in bits and pieces of earlier learning. It takes little ingenuity to assemble a dossier of prior art with the benefit of 20-20 hindsight. In this case, the respondents contended that all of the essential elements of the appellant's alleged inventions were disclosed in a single publication, the Solov'eva article, which predated the patent application by almost 4 years. If this is correct, the patent would be invalid.

26. The Solov'eva article was drawn to the respondents' attention by the appellant who cited it as prior art in the specification of the '361 patent itself. The legal question is whether the Solov'eva article contains sufficient information to enable a person of ordinary skill and knowledge in the field to understand, without access to the two patents, "the nature of the invention and carry it into practical use without the aid of inventive genius but purely by mechanical skill" (H. G. Fox, *The Canadian Law and Practice Relating to Letters Patent for Inventions* (4th ed. 1969), at pp. 126-27). In other words, was the information given by Solov'eva "for [the] purpose of practical utility, equal to that given in the patents in suit"? (*Consolboard Inc. v. MacMillan Bloedel (Sask.) Ltd.*, [1981] 1 S.C.R. 504, per Dickson J. at p. 534), or as was memorably put in *General Tire & Rubber Co. v. Firestone Tyre & Rubber Co.*, [1972] R.P.C. 457 (Eng. C.A.), at p. 486:

A signpost, however clear, upon the road to the patentee's invention will not suffice. The prior inventor must be clearly shown to have planted his flag at the precise destination before the patentee.

The test for anticipation is difficult to meet:

One must, in effect, be able to look at a prior, single publication and find in it all the information which, for practical purposes, is needed to produce the claimed invention without the exercise of any inventive skill. The prior publication must contain so clear a direction that a skilled person reading and following it would in every case and without possibility of error be led to the claimed invention. (*Beloit Canada Ltd. v. Valmet OY* (1986), 8 C.P.R. (3d) 289 (F.C.A.), per Hugessen J.A., at p. 297).

27. It is clear, with respect, that the Solov'eva article does not address, let alone solve, the technical problems dealt with in the patents in suit. It is nothing more than a four-page overview of the history of electro-magnetotherapy. It describes some of the various systems available in 1975 in Europe and Japan. The appellant, it must be appreciated, does not claim to have invented electro-magnetotherapy. It obtained a patent for a particular means. Although the various components were earlier known to persons skilled in the art, the inventor brought the elements together to achieve what the Commissioner of Patents considered a new, useful and ingenious result. The claimed invention effected an ingenious combination rather than a mere aggregation of previously known components (*The King v. Uhlemann Optical Co.*, [1952] 1 S.C.R. 143, per Rinfret C.J., at p. 150; *Domtar Ltd. v. MacMillan Bloedel Packaging Ltd.* (1977), 33 C.P.R. (2d) 182 (F.C.T.D.), at pp. 189-91). The ingenious combination was neither taught nor anticipated in the Solov'eva publication. None of the other arguments against validity are convincing. The patentee lived up to its side of the bargain by disclosing an invention. The patents are valid.

[159] The law has been modified somewhat by the Supreme Court of Canada in *Apotex Inc. v. Sanofi-Synthelabo Canada Inc.*, [2008] S.C.J. No. 63 [*Apotex v. Sanofi*], Mr. Justice Rothstein, speaking for the Court stated:

23. For the reasons that follow, and in light of recent jurisprudence, I am of the respectful opinion that the applications judge overstated the stringency of the test for anticipation that the "exact invention" has already been made and publicly disclosed.

24. In the 2005 decision of the House of Lords in *Synthon*, Lord Hoffmann has brought some further clarity to the law of anticipation as understood since *General Tire*. His reference at para. 20 to the "unquestionable authority" of Lord Westbury in *Hills v. Evans* (1862), 31 L.J. Ch. (N.S.) 457, at p. 463, makes it plain that his analysis does not depend on any change on English law flowing from the enactment of the *Patents Act 1977* (U.K.), 1977, c. 37, or the U.K.'s adoption of the *Convention on the Grant of European Patents*, 1065 U.N.T.S. 199 (entered into force October 7, 1977). He distinguishes between two requirements for anticipation that were not theretofore expressly considered separately, prior disclosure and enablement.

25. He explains that the requirement of prior disclosure means that the prior patent must disclose subject matter which, if performed, would necessarily result in infringement of that patent, and states, at para. 22:

If I may summarise the effect of these two well-known statements [from *General Tire* and *Hills v. Evans*], the matter relied upon as prior art must disclose subject matter which, if performed, would necessarily result in an infringement of the patent ... It follows that, whether or not it would be apparent to anyone at the time, whenever subject matter described in the prior disclosure is capable of being performed and is such that, if performed, it must result in the patent being infringed, the disclosure condition is satisfied.

When considering the role of the person skilled in the art in respect of disclosure, the skilled person is "taken to be trying to understand what the author of the description [in the prior patent] meant" (para. 32). At this stage, there is no room for trial and error or experimentation by the skilled person. He is simply reading the prior patent for the purposes of understanding it.

26. If the disclosure requirement is satisfied, the second requirement to prove anticipation is "enablement" which means that the person skilled in the art would have been able to perform the invention (para. 26). Lord Hoffmann held that the test for enablement for purposes of anticipation was the same as the test for sufficiency under the relevant United Kingdom legislation. (Enablement for the purposes of sufficiency of the patent specification under the

Canadian *Patent Act*, s. 34(1)(b) of the pre-October 1, 1989 Act, now s. 27(3)(b), is not an issue to be decided in this case and my analysis of enablement is solely related to the test for anticipation. The question of whether enablement for purposes of sufficiency is identical in Canada is better left to another day.)

27. Once the subject matter of the invention is disclosed by the prior patent, the person skilled in the art is assumed to be willing to make trial and error experiments to get it to work. While trial and error experimentation is permitted at the enablement stage, it is not at the disclosure stage. For purposes of enablement, the question is no longer what the skilled person would think the disclosure of the prior patent meant, but whether he or she would be able to work the invention.

28. The *Beloit* decision by which the applications judge rightly felt bound dealt with only one aspect of anticipation, that is, whether or not the invention in a patent had been disclosed in a single prior publication or patent. In that decision, Hugessen J.A. held that it had not. He had no need to consider the further point whether or not, had there been such a clear disclosure, the working of the invention was also enabled by that disclosure. That point was not in issue in *Beloit*. Explicitly separating disclosure and enablement is a refinement of the approach set out in *Beloit*. It explains the process a person skilled in the art would follow if the original patent anticipated the invention of the subsequent patent. I would adopt this approach.

29. Subject to any limitations expressed in the *Patent Act*, I see no reason why the discussion of anticipation should not apply to other prior art than merely genus patents. Again, subject to limitations in the *Patent Act*, the discussion of anticipation and obviousness would seem applicable to patents generally.

30. Two questions now must be answered: (1) what constitutes disclosure at the first stage of the test for anticipation, and (2) how much trial and error or experimentation is permitted at the enablement stage?

My understanding of this jurisprudence is that if no disclosure is found to have occurred in the prior art, *Free World Trust* above, would still apply.

[160] The QUEST injector is a one-piece injector (Exhibit 15). It consists of:

1. a housing containing a secondary fluid;
2. a piston within the housing; and
3. a ram threadably engaged with the housing to drive the piston so that when the ram

is rotated the threads drive the piston into the housing and expel the fluid from the housing (paragraph 102 of the plaintiff's closing argument).

[161] The defendant alleges that all of the claims of the '673 Patent are anticipated by QUEST.

[162] I wish to first deal with claims 1, 2, 3, 4, 7, 8, 9 and 10 of the '673 Patent. The issue becomes whether the QUEST instrument would lead a person skilled in the art directly to the use of a "cylindrical cartridge received by a cartridge receiver having piston driving means?" The piston of the QUEST instrument is defined by one end of the ram. If you were to remove the ram, there would be no piston as it is attached to the ram. Thus, there would be no cylindrical cartridge as defined by the claims of the '673 Patent in that there would not be any piston in the cartridge.

[163] The defendant submitted that the socket wrench (Exhibit 30) was a cartridge receiving device with piston driving means. The piston in the QUEST instrument is driven forward into the housing in order to expel the fluid. However, turning the nut on the end of the ram engages threads on the ram with threads on the inside of the housing. You need to have the threads on the ram to engage the threads on the inside of the housing in order to drive the piston into the housing. If there were no threads, the piston would not advance into the housing so as to dispel the fluid.

[164] The defendant's expert Dr. Frise stated at page 190, volume 6 of the transcript:

Q. And I think you would agree with me, sir, that if you would put that wrench on the end of the Quest implement, and if the Quest implement didn't have the threads here, that define the path as you put it I think?

A. Yes.

Q. You could turn that wrench all you want and there would be no movement of the piston, correct?

A. It would rotate.

Q. It would, you would rotate the piston, right, it wouldn't drive the piston forward though, would it?

A. It wouldn't drive the piston forward.

Q. And with respect to both the wrench and the crossbar on Bradley, if you didn't have your hand on it to actually move the wrench or the cross bar, there wouldn't be any driving of anything, right?

A. Yeah, you would certainly have, all these devices require your hand.

[165] From my review of the QUEST instrument, I am of the view that the socket wrench is not a cartridge receiver with piston driving means. In my view, the socket is actually received in the injector because as you turn the nut on the ram with the wrench, the socket actually advances into the injector.

[166] Jerome Lemon, the plaintiff's expert, stated at paragraph 8 of his expert rebuttal affidavit:

. . . It is also clear to me that "cartridge receiver" means an assembly designed to hold the cartridge in place so that the mechanical piston driving means may engage the piston in the cartridge and force it

through the cartridge body forcing the secondary fluid out the other end.

[167] The design of the socket wrench has no means to hold the housing in place so that the mechanical piston driving means may engage the piston and drive it through the housing as was found to be required by both the defendant's and plaintiff's experts.

[168] I am of the view that claims 1, 2, 3, 4, 7, 8, 9 and 10 of the '673 Patent are not anticipated by the QUEST references. QUEST does not teach towards these claims or lead directly to the invention claimed in these claims. QUEST does not teach a cartridge received in a cartridge receiver having piston driving means as required by the claim.

[169] The next issue to be discussed is whether claims 14 and 16 are anticipated by the QUEST reference. I must determine whether the QUEST instrument discloses a canister having two open ends.

[170] Claim 14 calls for:

14. A canister for charging a closed, pressurized air conditioning or refrigeration system with a fluid, comprising:
 - a. a closed, non-pressurized cylindrical canister, wherein said canister has two ends, a first open end which connects to the system being charged and a second open end,
 - b. . . .
 - c. a piston sealably disposed with said second open end of said canister, wherein said canister is adapted to sealably and releasably connect to said pressurized air conditioning or refrigeration system to form a closed binary system.

[171] As can be seen, the first open end which connects to the system being charged. The evidence however, shows that the end of the QUEST injector that attaches to the system being charged has an anti-back flow valve that closes the end of the housing between the integral connector element for connecting the QUEST instrument to the AC system or system being charged. Claim 14 is not anticipated by the QUEST instrument as it does not teach directly toward a canister having a first open end and attached to the AC system.

[172] As well, claim 14 provides for second open end having a “piston sealably disposed with said second open end of said canister”. The second end of the QUEST instrument has exterior threads on the ram which are engaged in interior threads on the inside of the housing which closes the second open end and of the housing between the second end and the piston.

[173] In my view, the QUEST instrument uses the usual method of closing the first end of the canister that is to be attached to the system being charged. The second or other end of the canister has a ram extending out from it which closes that end of the canister. The QUEST instrument does not lead directly to the canister claimed in claim 14 of the ‘673 Patent.

[174] The experts clearly understood that a separate cartridge was disclosed by the claim.

Professor Brown, the defendant’s expert stated at pages 86 and 87, volume 4 of the transcript:

Q. So in any event, none of the prior art had any particular cartridge receiver designed specifically to receive a cartridge, a separate cartridge, is that correct?

A. Because you would naturally assume that the 5-8 socket and ratchet would be used, because it came from a tool box, it would be

used in other applications. That's not a specific, specifically designed for that tool.

Q. And none of the other implements had anything that was specifically designed that would be characterized as a separate cartridge receiver that could receive separate cartridges, is that correct?

A. Not that I saw.

Q. And the claims of those, of the patent that we were just looking at, claim four, does specifically identify that the container is a cylindrical cartridge received by a cartridge receiver having piston-driving means?

A. Yes, that's correct, that's what it says.

This is not disclosed by the QUEST instrument.

[175] I therefore find that the QUEST injector does not anticipate claim 14 of the '673 Patent nor does it anticipate claim 15 or 16 of the same patent as these claims are dependant claims on claim 14.

[176] **Issue 6.(b)**

Is claim 14 anticipated by the BRADLEY, CLASSIC or ROBINAIR references respectively?

The evidence shows that neither BRADLEY (Exhibit 1, volume 11, tab 60) nor CLASSIC (Exhibit 10) have or disclose a canister with two open ends. As noted in the last section of these reasons, that is a requirement of claim 14. As well, the end of these instruments that attach to the AC system is closed by an anti-back flow valve when the canister is closed with fluid in it. Both the

BRADLEY and the QUEST are refillable. Hence, they do not disclose a non-pressurized cylindrical canister in a predetermined amount of secondary fluid kept at an ambient pressure. Also, as I noted with respect to the QUEST instrument, they do not lead directly to the use of a separate cartridge which is what is to be covered by the claim according to the expert's testimony.

[177] In the ROBINAIR instrument, the end of the canister that engages with the AC system is closed by a nozzle assembly that has an anti-back flow valve. Hence, it does not disclose the canister covered in claim 14 as it does not have two open ends. As well, I note that the ROBINAIR is refillable. This means that it does not disclose a non-pressurized cylindrical canister in which a predetermined amount of secondary fluid is maintained at about ambient pressure as stated in claim 14.

[178] In my view, ROBINAIR does anticipate claim 14 of the '673 Patent.

[179] **Issue 6.(c)**

Is the claim obvious as a result of the references and common general knowledge identified by the defendant's experts?

Section 28.3 of the *Patent Act* applies to obviousness of a patent and states:

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.

[180] Prior to the Supreme Court of Canada's decision in *Apotex v. Sanofi* above, the test for obviousness was spelled out by Mr. Justice Hugessen in *Beloit Canada Ltd. et al v. Valmet Oy* (1986), 8 C.P.R. (3d) 289 (F.C.A.) at page 294:

The test for obviousness is not to ask what competent inventors did or would have done to solve the problem. 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.

And at page 295, Mr. Justice Hugessen states:

Every invention is obvious after it has been made, and to no one more so than an expert in the field. Where the expert has been hired for the purpose of testifying, his infallible hindsight is even more suspect. It is so easy, once the teaching of a patent is known, to say, "I could have done that"; before the assertion can be given any weight, one must have a satisfactory answer to the question, "Why didn't you?"

[181] In *Apotex v. Sanofi* above, Mr. Justice Rothstein, speaking for the Court, after discussions of the law on obviousness in the United States and the United Kingdom, stated at paragraphs 60 to 67:

60. There is a similarity between the current state of the law in the United Kingdom and the United States in respect of "obvious to try". It is now clear that both jurisdictions accept that an "obvious to try"

test can be relevant in an obviousness inquiry. The United States Supreme Court has now stated so explicitly in *KSR*. The convergence of the United Kingdom and the United States law on this issue suggests that the restrictiveness with which the *Beloit* test has been interpreted in Canada should be re-examined.

(d) Approach to Obviousness in Canada

61. I take as a starting point the words of Diplock L.J. in *Johns-Manville*, at pp. 493-94:

Patent law can too easily be bedevilled by linguistics, and the citation of a plethora of cases about other inventions of different kinds. The correctness of a decision upon an issue of obviousness does not depend upon whether or not the decider has paraphrased the words of the Act in some particular verbal formula. I doubt whether there is any verbal formula which is appropriate to all classes of claims.

Although we are not here dealing with obviousness provided by an express statutory test, but rather by necessary implication based on the requirement for invention in the *Patent Act*, the words of Diplock L.J. are nonetheless apt because the courts have often tended to treat the word formulation of *Beloit* as if it were a statutory prescription that limits the obviousness inquiry.

62. I do not think that Hugessen J.A. in *Beloit* intended that the rather colourful description of obviousness that he coined be applied in an acontextual manner applicable to all classes of claims. I note particularly that "obvious to try" is not a mandatory test in the United Kingdom or in the United States. It is one factor of a number that should be considered, having regard to the context and the nature of the invention.

63. In *KSR*, Kennedy J. warns against an overly rigid rule that limits the obviousness inquiry. Rather, an expansive and flexible approach that would include "any secondary considerations that [will] prove instructive" will be useful (p. 1739). I read *KSR* as teaching that as in most matters in which a judge or a jury is called upon to make a factual determination, rigid rules are inappropriate unless mandated by statute.

64. While I do not think the list is exhaustive, the factors set forth by Kitchin J. and adopted by Lord Hoffmann in *Lundbeck*, referred to at para. 59 of these reasons, are useful guides in deciding whether a particular step was "obvious to try". However, the "obvious to try" test must be approached cautiously. It is only one factor to assist in the obviousness inquiry. It is not a panacea for alleged infringers. The patent system is intended to provide an economic encouragement for research and development. It is well known that this is particularly important in the field of pharmaceuticals and biotechnology.

65. In *Saint-Gobain PAM SA v. Fusion Provida Ltd.*, [2005] EWCA Civ 177, Jacob L.J. stated, at para. 35:

Mere possible inclusion of something within a research programme on the basis you will find out more and something might turn up is not enough. If it were otherwise there would be few inventions that were patentable. The only research which would be worthwhile (because of the prospect of protection) would be into areas totally devoid of prospect. The "obvious to try" test really only works where it is more-or-less self-evident that what is being tested ought to work.

In *General Tire*, Sachs L.J. said, at p. 497:

"Obvious" is, after all, a much-used word and it does not seem to us that there is any need to go beyond the primary dictionary meaning of "very plain".

In *Intellectual Property Law*, at p. 136, Professor Vaver also equates "obvious" to "very plain". I am of the opinion that the "obvious to try" test will work only where it is very plain or, to use the words of Jacob L.J., more or less self-evident that what is being tested ought to work.

66. For a finding that an invention was "obvious to try", there must be evidence to convince a judge on a balance of probabilities that it was more or less self-evident to try to obtain the invention. Mere possibility that something might turn up is not enough.

67. It will be useful in an obviousness inquiry to follow the four-step approach first outlined by Oliver L.J. in *Windsurfing*

International Inc. v. Tabur Marine (Great Britain) Ltd., [1985] R.P.C. 59 (C.A.). This approach should bring better structure to the obviousness inquiry and more objectivity and clarity to the analysis. The Windsurfing approach was recently updated by Jacob L.J. in *Pozzoli SPA v. BDMO SA*, [2007] F.S.R. 37, [2007] EWCA Civ 588, at para. 23:

In the result I would restate the *Windsurfing* questions thus:

- (1) (a) Identify the notional "person skilled in the art";
- (b) Identify 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? [Emphasis added.]

It will be at the fourth step of the *Windsurfing/Pozzoli* approach to obviousness that the issue of "obvious to try" will arise.

Application of the *Windsurfing* above, Questions

[182] 1.(a) Person skilled in the art

The person skilled in the art in the present case would be a mechanical/manufacturing engineer or a technician with experience in the field of automotive air conditioning.

[183] 1.(b) Identify the relevant common general knowledge of that person

The common general knowledge of this person would be knowledge to assemble the equipment in question, practice its methods and the person would need to have knowledge in the area of automotive air conditioning and their operation and maintenance.

[184] 2. Identify the inventive concept of the claim in question or if that cannot readily be done, construe it

The inventive concept involved here is a separate cartridge filled with a predetermined fluid to be injected into an AC system and a cartridge receiver having mechanically operated piston driving means.

[185] 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

The prior methods for injecting dyes (secondary fluid) into an AC system were the infusion methods. The dye in this case was under pressure so as to force it into the AC system. Any mechanically operated devices that were available at the time generally had ends adapted for releasable connection to AC systems and were closed by check valves. All except the ROBINAIR had the other (second end) closed by a protruding ram rather than a piston. As well, ROBINAIR's design seems to provide less mechanical advantage than earlier threaded injectors.

[186] As noted earlier, the Montréal Protocol of 1987 and the government regulations in the early 1990s provided that minimal amounts of refrigeration could be released into the air. AC systems

could not be topped up without checking for leaks and a new dye with smaller molecules that were harder to detach when leakage occurred in the AC system was mandated.

[187] The advantage of the new invention included the fact that it avoided mess and inconvenience, accuracy and the introduction of contaminants into the secondary fluid improved. There would be spillage of refrigerants when using the older methods. Another advantage of the new invention was that the charging conduit could be kept full of fluid all the time, thus avoiding the need to purge it between uses.

[188] 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?

Mr. Justice Rothstein stated in *Apotex v. Sanofi* above, at paragraph 68:

i. When Is the "Obvious to Try" Test Appropriate?

68. In areas of endeavour where advances are often won by experimentation, an "obvious to try" test might be appropriate. In such areas, there may be numerous interrelated variables with which to experiment. For example, some inventions in the pharmaceutical industry might warrant an "obvious to try" test since there may be many chemically similar structures that can elicit different biological responses and offer the potential for significant therapeutic advances.

[189] Taking in mind the statement of the Court in paragraph 68 of *Apotex v. Sanofi* above, I have come to the conclusion that the "obvious to try" test would not be appropriate in this case as the case does not deal with the type of case the Supreme Court of Canada said the "obvious to try test" would be appropriate.

[190] Based on the evidence of prior art before me, I am of the view that the claimed inventions, namely a separate cartridge filled with a predetermined amount of fluid (secondary) to be injected into an AC or refrigeration system by means of a cartridge receiver having mechanically operated piston driving means was not obvious to the person skilled in the art as of the filing date of the '673 Patent.

[191] **Issue 6.(d)**

The claim is over broad or lacking utility as a result of the failure to specify a means for retaining the piston in the cylinder.

With respect to overbreadth and inutility of the patent, Mr. Justice Cullen in *Lubrizol Corp. et. al. v. Imperial Oil Ltd.* (1990), 33 C.P.R. (3d) 1 (F.C.T.D.) at pages 27 and 28 stated:

There are two fundamental limitations on the extent of the monopoly that may be validly claimed in a patent:

- 1) it must not exceed the invention that has been made, and
- 2) it must not exceed the invention described in the specification

If the claim is far broader than that disclosed in the specifications so as to include a vast range of materials that cannot all be conceived to be workable, the claim is invalid.

However, the Supreme Court of Canada in *Burton Patsons Chemicals Inc. et al. v. Hewlett-Packard Ltd. et al.* (1974), 3 N.R. 533 (S.C.C.) warned that an inventor is free to make his claims as narrow as he/she sees fit in order to protect himself/herself from invalidity which will occur if the claims are too broad.

Again, the onus is on the defendant to establish a lack of utility or claim broader than invention. The fact that a patent was not fully tested and proven in all its claims is not enough. In *Lovell Manufacturing Co. et al. v. Beatty Bros. Ltd.* (1962), 41 C.P.R. (2d) 18, 23 Fox Pat. C. 112 (Ex. Ct.), it was held that it is possible to claim beyond specific examples as long as claims are sound

predictions of what will happen when the claims are followed. This is a question of fact and the claims are to be interpreted by applying the common vocabulary of the art. Within the specification, the phraseology, and the drawings by their illustration, may assist, but should not be used to vary or enlarge the claims; if the words are plain and unambiguous, it will not be possible to expand or limit their scope by referring to the wording of the specification: *Kramer, supra*, at p. 310. Here again, the courts have been cautioned not to be too technical in their approach.

[192] In the Supreme Court of Canada in *Consolboard Inc. v. MacMillan Bloedel (Saskatchewan)*

Ltd. (1981), 56 C.P.R. (2d) 145 at page 160, it was stated:

. . . To the extent that the Federal Court of Appeal held that s. 36(1) of the *Patent Act* requires a disclosure of the invention, including its utility, to the public as unskilled or uninformed laymen, such finding, in my view, is contrary to law. There is but a single test, and that test is whether the specification adequately describes the invention for a person skilled in the art, though, in the case of patents of a highly technical and scientific nature, that person may be someone possessing a high degree of expert scientific knowledge and skill in the particular branch of science to which the patent relates. It might be added that there was no evidence by the respondent as to any respect in which the specifications of the two patents in issue would have been considered deficient by a workman of ordinary skill in the art.

In my respectful opinion the Federal Court of Appeal erred also in holding that s. 36(1) requires distinct indication of the real utility of the invention in question. There is a helpful discussion in Halsbury's *Laws of England*, (3rd ed.), vol. 29, at p. 59, on the meaning of "not useful" in patent law. It means "that the invention will not work, either in the sense that it will not operate at all or, more broadly, that it will not do what the specification promises that it will do". There is no suggestion here that the invention will not give the result promised. . . .

[193] The defendant submitted that the claims of the '673 Patent are broader than the invention described in the specification and that the plaintiff's SPOTGUN lacks utility. The reason for this conclusion was that the claims do not specify a means to hold the piston in the cartridge to safeguard against the ejection of the piston. There are a number of problems with this submission. For example, claims 1 and 4 and their dependant claims require that the cartridge be "received" in the cartridge receiver. As well, claim 14 requires that the cartridge forms a closed binary system with the AC system when connected to it. If the cartridge is received by a cartridge receiver this will prevent the ejection of the piston. Secondly, since claim 14 requires that the cartridge be part of a closed binary system, this again means that there must be means to stop the ejection of the piston from the cartridge.

[194] A review of the testimony of Professor Brown (see pages 69 to 75 and pages 79 to 81 of the June 16, 2008 transcript), indicates to me that he believed that persons skilled in the art would understand the need to stop the piston and that this would be done in a number of ways. Dr. Frise gave similar evidence (see pages 18 to 25 of the June 18, 2008 transcript).

[195] Dr. Frise also stated at paragraph 29 of his expert affidavit that the "claims, in my opinion, are also broader than any invention arguably disclosed in the disclosure". However, on cross-examination when being questioned about the '673 Patent, he stated:

Q. Thank you. I appreciate that, sir. On page three, there is a discussion up near the top where it said,

"The use of non-pressurized charging containers would avoid the expense, inconvenience and safety concerns associated with highly pressurized

containers and would consecutively represent a significant improvement in the art.”

Do you see that, sir?

A. Yes.

Q. And those benefits would not be limited to the use of caulking gun type implement, is that correct? Could use any type of injector, correct?

A. Yes.

Q. And there is a wide variety of dispensing guns that were available on the market as of the mid 1990s, correct?

A. Well, there is a wide variety of dispensing guns for one type of service or another, yes.

Q. All kinds of them, caulking guns or glue guns or the sky is the limit, isn't there, there's all kinds of dispensing guns, isn't there?

A. There are a number, yes.

Dr. Frise was satisfied that the benefits of the invention described in the specification would be realized by different types of injectors other than the caulking gun type of injector.

[196] For the above reasons, I am satisfied that the claims are not broader than the invention described and that the invention does not lack utility. The '673 Patent is not invalid on these grounds.

[197] **Issue 6.(e)**

The application that issued into the '673 Patent failed to comply with section 37 due to a lack of drawings in the specification.

Section 37 of the *Patent Act* reads:

37.(1) In the case of a machine, or in any other case in which an invention admits of illustration by means of drawings, the applicant shall, as part of the application, furnish drawings of the invention that clearly show all parts of the invention.

(2) Each drawing must include references corresponding with the specification, and the Commissioner may require further drawings or dispense with any of them as the Commissioner sees fit.

[198] It can be seen that subsection 37(2) of the *Patent Act* gives the Commissioner discretion to dispense with drawings if the Commissioner sees fit. In *Schweyer Electric and Manufacturing Co. v. New York Central Railroad Co.*, [1934] Ex. C.R. 31 at page 63, the Court stated at page 63:

However, in this case, the Patent Office did give the filing date mentioned to the application in question, and in due course a patent issued, as many others may have done in similar circumstances. I do not think I can now go back and alter the record and hold that the true filing date was a week later, when the drawings were supplied. I am not prepared to hold that the specification was so incomplete that it was no specification at all, and that Schweyer should not have been given the filing date of August 31. There was filed a specification which may have amply described and disclosed the alleged invention to those skilled in that art, and it may well be that the delayed drawings, which would soon follow, would merely clarify and elaborate the specification.

[199] I would note that according to their evidence, neither of the defendant's expert witnesses had any difficulty in understanding the invention from reading the specifications. As well, since the Commissioner issued the '673 Patent, the Commissioner must have believed that the requirements of the Act were met including the dispensing of the need for drawings pursuant to subsection 37(2) of the Act.

[200] I cannot find that the '673 Patent is invalid for failure to comply with section 37 of the Act.

[201] **Issue 6.(f)**

The plaintiff failed to comply with paragraph 73(1)(a) of the *Patent Act* in view of the fact that the plaintiff filed minutes from a hearing before the EPO in respect of the corresponding European application.

Paragraph 73(1)(a) of the Act reads as follows:

73.(1) An application for a patent in Canada shall be deemed to be abandoned if the applicant does not

(a) reply in good faith to any requisition made by an examiner in connection with an examination, within six months after the requisition is made or within any shorter period established by the Commissioner; . . .

[202] The evidence in this case does not establish that the plaintiff failed to reply to any requisition made by an examiner. Indeed, Dr. Frise testified that the incorrect statements, if any, were made in the European Patent Office. The minutes filed with the Canadian application actually show that the alleged misrepresentations were rejected by the European Patent Office.

[203] The plaintiff did not breach paragraph 73(1)(a) of the Act and the patent is not invalid for this reason.

[204] **Issue 6.(g)**

The '673 Patent is void pursuant to subsection 53(1) of the *Patent Act* on the basis that:

the petition contains an untrue material allegation, namely that Michael Kroll and Phil Trigiani were the owners of the invention; or

as a result of the omission of drawings of the apparatus in the specification, it contains more or less than is necessary for obtaining the end for they purported to be made.

Subsection 53(1) of the *Patent Act* states:

53.(1) A patent is void if any material allegation in the petition of the applicant in respect of the patent is untrue, or if the specification and drawings contain more or less than is necessary for obtaining the end for which they purport to be made, and the omission or addition is wilfully made for the purpose of misleading.

[205] The Supreme Court of Canada in *Apotex Inc. v. Wellcome Foundation Ltd.* (2002), 21

C.P.R. (4th) 499 (S.C.C.) at pages 538 to 539 stated:

107. The trial judge concluded that Drs. Broder and Mitsuya were co-inventors, but that failure to include them in the patent was not a material misrepresentation that would invalidate the patent. In reaching this conclusion, he referred to the observation of Addy J. in *Procter & Gamble Co. v. Bristol-Myers Canada Ltd.* (1978), 39 C.P.R. (2d) 145 (F.C.T.D.), at p. 157, that "it is really immaterial to the public whether the applicant is the inventor or one of two joint inventors as this does not got [*sic*] to the term or to the substance of the invention nor even to the entitlement" (aff'd (1979), 42 C.P.R. (2d) 33 (F.C.A.)). At an earlier date, Thurlow J. had suggested in *Jules R. Gilbert Ltd. v. Sandoz Patents Ltd.* (1970), 64 C.P.R. 14 (Ex. Ct.), at p. 74, rev'd (on other grounds) [1974] S.C.R. 1336 (sub nom. *Sandoz Patents Ltd. v. Gilcross Ltd.*), that "allegations in the petition respecting anything other than the subject-matter of the claims in the patent as granted are not material".

108. The appellants argue that, while as Addy J. says, it may be that the identity of the inventor is immaterial to the public in most instances, this is not necessarily true in all cases. Here, for example, the issue of "entitlement" to the rewards of the AZT patent has created a significant public controversy. There were arguably important public policy ramifications to the issue of co-inventorship because of the contrasting mandates, objectives and funding sources

of the institutions involved, in particular the NIH and the Glaxo/Wellcome corporate group. If indeed the NIH researchers had been "co-inventors", and the NIH or the U.S. government had therefore held an ownership interest in the patent, there potentially could have been a significant effect on both the access to and the cost of the drug AZT across the world.

109. There is no need to consider the issue of materiality further in this case however, not only because of the conclusion that Drs. Broder and Mitsuya were not in fact co-inventors in this case, but also because there is no evidence whatsoever that the omission to name them was "wilfully made for the purpose of misleading", as required by the concluding words of s. 53(1).

[206] The jurisprudence establishes that the alleged untrue allegation must be material and must be "wilfully made for the purpose of misleading". The above cited case supports the proposition that the allegation that Michael Kroll and Phil Trigiani were the owners of the invention is not a material allegation.

[207] Subsection 27(1) of the *Patent Act* reads in part as follows:

27(1) The Commissioner shall grant a patent for an invention to the inventor or the inventor's legal representative . . .

Section 2 of the *Patent Act* defines legal representative as:

"legal representatives" includes heirs, executors, administrators, guardians, curators, tutors, assigns and all other persons claiming through or under applicants for patents and patentees of inventions;

In my view, when you consider the dictionary meaning of the persons such as guardian and curator, Michael Kroll could be considered the legal representative and thus, an applicant.

[208] With respect to the omission of the drawings as being material so as to breach subsection 53(1) of the *Patent Act*, the invention could be understood from the specifications.

[209] I find that there was no breach of subsection 53(1) of the Act by naming Michael Kroll as an applicant nor because of the omission of the drawings. The '673 Patent is not void or invalid for these reasons.

[210] **Issue 7.(a)**

7. Are any of claims 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 17, 18, 19, 20, 21 or 38 of the '024 Patent invalid on the basis that:

(a) The subject matter defined by the claim is not patentably distinct from the subject matter defined by any of the claims in the '673 Patent

The defendant submitted that the above noted claims of the '024 Patent are invalid because of double patenting. In *Whirlpool Corp. v. Camco Inc.*, Mr. Justice Binnie, on behalf of the Court, stated as follows with respect to double patenting at pages 157 and 158:

3. If the '803 Patent Claims Properly Construed do not Include Flex Vanes, is the '734 Patent Nevertheless Invalid Because of Double Patenting?

63. The prohibition against double patenting relates back to the "evergreen" problem mentioned at the outset. The inventor is only entitled to "a" patent for each invention: *Patent Act*, s. 36(1). If a subsequent patent issues with identical claims, there is an improper extension of the monopoly. It is clear that the prohibition against double patenting involves a comparison of the claims rather than the disclosure, because it is the claims that define the monopoly. The question is how "identical" the claims must be in the subsequent patent to justify invalidation.

64. The Federal Court of Appeal has adopted the test that the claims must be "identical or conterminous": *Beecham Canada Ltd. v. Procter & Gamble Co.* (1982), 61 C.P.R. (2d) 1, at p. 22. This verbal formulation derives from an editorial comment by Dr. H. G. Fox, Q.C., on *Lovell Manufacturing Co. v. Beatty Bros. Ltd.*, reported at (1962), 23 Fox Pat. C. 112, at pp. 116-17:

Letters patent are not granted at pleasure, but for a term of years and the grant of a second patent with respect to [page1105] the same subject-matter would be void under this statute [6 Henry VIII, c. 15, 1514] and by the Statute of Monopolies, as well as at common law and by the terms of section 28(1)(b) of the Canadian Patent Act. But for this purpose the subject-matter of the two grants must be identical. A subsequent claim cannot be invalidated on the ground of prior claiming unless the two claims are precisely conterminous.

65. This branch of the prohibition on double patenting is sometimes called "same invention" double patenting. Given the claims construction adopted by the trial judge it cannot be said that the subject matter of the '734 patent is the same or that the claims are "identical or conterminous" with those of the '803 patent.

66. There is, however, a second branch of the prohibition which is sometimes called "obviousness" double patenting. This is a more flexible and less literal test that prohibits the issuance of a second patent with claims that are not "patentably distinct" from those of the earlier patent. In *Commissioner of Patents v. Farbwerke Hoechst Aktiengesellschaft Vormals Meister Lucius & Bruning*, [1964] S.C.R. 49, the issue was whether Farbwerke Hoechst could obtain a patent for a medicine that was a diluted version of a medicine for which it had already obtained a patent. The claims were neither identical nor conterminous. Judson J. nevertheless held the subsequent patent to be invalid, explaining at p. 53:

A person is entitled to a patent for a new, useful and inventive medicinal substance but to dilute that new substance once its medical uses are established does not result in further invention. The diluted and undiluted substance are but two aspects of exactly the same invention. In this case, the addition of an inert carrier, which is a common expedient to increase

bulk, and so facilitate measurement and administration, is nothing more than dilution and does not result in a further invention over and above that of the medicinal itself. [Emphasis added.]

67. In *Consolboard, supra*, Dickson J. referred to *Farbwerke Hoechst* as "the main authority on double patenting" (p. 536) which stood for the proposition that a second patent could not be justified unless the claims exhibited "novelty or ingenuity" over the first patent:

Judson J. for the Court said that the second process involved no novelty or ingenuity, and hence the second patent was unwarranted.

[211] The defendant in the present case relies on the second branch of the test or obviousness double patenting. This branch contemplates a situation where the claims of the patents in issue are not identical but are not patentably distinct.

[212] According to *Whirlpool* above, the question to be determined is whether the claims of the '024 Patent exhibited "novelty or ingenuity" over the '673 Patent. I am of the opinion that they do.

[213] The claims of the '024 Patent all have "a nozzle integral with and extending out from a first end of said tubular casing". As well, some of the claims of the '024 Patent also include an anti-back flow valve in the hose. I must now determine whether the inclusion of "a nozzle integral with and extending out from a first end of said tubular casing" and the inclusion of an anti-back flow valve in the hose are inventive or exhibit novelty or ingenuity.

[214] I am of the opinion that the integral nozzle is inventive. According to the evidence, the trend in the industry was towards structures including check valves and non-integral connector elements in the nozzles of injector devices. The evidence also shows that the only example of a separate cartridge and cartridge receiver having piston driving means is the defendant's international design device. That device tends to show that the integral nozzle is inventive as the cartridge in that device did not include a nozzle but included a foil cover.

[215] With respect to the anti-back flow valve being placed in the hose, I am of the view that this was inventive. According to the evidence, the trend was to include check valves in nozzles rather than in the hose. This is shown by the hoses used in the ROBINAIR, QUEST and CLASSIC injectors.

[216] There was advantage or benefit to placing the anti-back flow valve in the hose which included:

1. Avoiding the need to bleed the hose before each use;
2. Avoiding back flushing problems; and
3. Preventing leakage from the hose after use.

[217] There was no evidence that an anti-back flow valve had been used in a hose on a previous occasion.

[218] For the above reasons, I am of the opinion it was not obvious to use an integral nozzle or to place the anti-back flow valve in the hose.

[219] In summary, the use of the “nozzle integral with and extending from a first end of said tubular casing” and the use of an anti-back flow valve in the hose exhibited “novelty or ingenuity” as stated in *Whirlpool* above. As a result, I do not find that double patenting exists as a result of the ‘024 Patent. Consequently, the ‘024 Patent is not invalid for this reason.

[220] **Issue 7.(b)**

In respect of any of claims 1, 5, 6, 7 or 9, the claim was anticipated by Canadian patent application no. 2,252,329.

The defendant claims that the above mentioned claims of the ‘024 Patent were anticipated by the ‘329 Patent because it had an earlier effective filing date than the ‘024 Patent. The ‘329 Patent’s filing date in Canada was November 3, 1998 but it claimed priority from a provisional application filed in the United States on November 4, 1997. The filing date for the ‘024 Patent was December 8, 1997.

[221] The evidence shows that the ‘024 Patent was listed as prior art in the ‘329 Patent. As well, the evidence shows that the defendant was aware of the plaintiff’s SPOTGUN commercial embodiment of the inventions claimed in the ‘673 and ‘024 Patents when it developed the DYE STICK.

[222] Subsection 28.2(1) and section 28.3 of the *Patent Act* read as follows:

28.2(1) The subject-matter defined by a claim in an application for a patent in Canada (the "pending application") must not have been disclosed

(a) 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 subject-matter became available to the public in Canada or elsewhere;

(b) before the claim date by a person not mentioned in paragraph (a) in such a manner that the subject-matter became available to the public in Canada or elsewhere;

(c) in an application for a patent that is filed in Canada by a person other than the applicant, and has a filing date that is before the claim date; or

(d) in an application (the "co-pending application") for a patent that is filed in Canada by a person other than the applicant and has a filing date that is on or after the claim date if

(i) the co-pending application is filed by

(A) 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

(B) 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,

(ii) the filing date of the previously regularly filed application is before the claim date of the pending application,

(iii) the filing date of the co-pending application is within twelve months after the filing date of the previously regularly filed application, and

(iv) the applicant has, in respect of the co-pending application, made a request for priority on the basis of the previously regularly filed application.

...

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.

[223] The Supreme Court of Canada in *Rizzo & Rizzo Shoes Ltd. (Re)*, [1998] 1 S.C.R. 27 had the following to say concerning statutory interpretation at pages 40 and 41:

Although much has been written about the interpretation of legislation (see, e.g., Ruth Sullivan, *Statutory Interpretation* (1997); Ruth Sullivan, *Driedger on the Construction of Statutes* (3rd ed. 1994) (hereinafter "*Construction of Statutes*"); Pierre-André Côté, *The Interpretation of Legislation in Canada* (2nd ed. 1991), Elmer Driedger in *Construction of Statutes* (2nd ed. 1983) best encapsulates the approach upon which I prefer to rely. He recognizes that statutory interpretation cannot be founded on the wording of the legislation alone. At p. 87 he states:

Today there is only one principle or approach, namely, the words of an Act are to be read in their entire context and in their grammatical and ordinary sense harmoniously with the scheme of the Act, the object of the Act, and the intention of Parliament.

[224] Section 28.2 allows the disclosure of the subject matter defined by a claim within a period of one year before the applicant's filing date. Applying the approach noted above and looking at the *Patent Act* as a whole, it would not make any sense to allow the subject matter of a claim to be disclosed in the period of one year prior to the filing date and still be patentable if someone else could use the disclosed subject matter as prior art to defeat the applicant's application for a patent.

[225] In my view, it is all the more so when as in this case, the defendant's '629 Patent application cites the plaintiff's SPOTGUN as prior art.

[226] Based on the above, I am of the opinion that the '329 Patent is not citable against the plaintiff's application. Claims 1, 5, 6, 7 and 9 of the '024 Patent are not anticipated by the '329 Patent.

[227] **Issue 7.(c)**

In respect of any of claims 1, 4, 5, 6, 7, 9, 17, 20, 21 or 38, the subject matter defined by the claim was anticipated by the QUEST, CLASSIC or ROBINAIR references respectively.

I have reviewed paragraphs 166 to 170 of the plaintiff's closing argument and I would adopt the reasoning contained therein as my own. These paragraphs read as follows:

166. The Defendant's experts asserted anticipation of various claims of the '024 patent by the Quest, Classic and Robinair injectors. However, it is submitted that none of the implements disclose all of the elements making up the combination of elements claimed. Further, it is submitted that the Defendant has not met the onus upon it to establish that the Robinair injector was, in fact, prior art. It is also worth noting for clarity that, while the '673 patent is citable for double patenting issues, it is not otherwise citable as prior

art and cannot affect the inventiveness/disclosure of particular features disclosed in its specification.

167. Dealing first with Quest, it is submitted that it does not include an integral nozzle extending out of the end of the tubular casing to engage with the connector assembly. As discussed by Dr. Frise on cross-examination, the nozzle is simply a hole in the end of the device that is closed by a check valve held in place by the charging conduit/connector that is integral with the end of the device. Further, the implement does not include a release valve even if it is accepted that the hose put in evidence was prior art since that hose did not include a check valve, but instead included a valve depressor that did not close the end of the hose when disengaged from the service port. Accordingly, it does not include all elements of and does not anticipate claim 1 or any of the claims dependent thereon. With respect to claim 17, Quest clearly did not teach a connector assembly as required by the claim since it did not include a release valve or an anti-back flow valve. Further it did not disclose a canister having two open ends as discussed in respect of the '673 patent. Accordingly, it is submitted that Quest clearly does not anticipate claim 17 or any of the claims dependent thereon.

168. With respect to dependent claims, it is further submitted that Quest does not disclose any gradient markings (claim 2), a cap (claim 3), a separate housing and drive mechanism (claim 7) or an anti-back flow valve in the connector assembly (claim 38). Accordingly, it is submitted that even if it was found that the Quest product anticipated claims 1 and 17 (which it should not be), it should not be found to anticipate the aforesaid claims that add additional elements not found on Quest.

169. Similarly, with respect to Classic, it is submitted that it does not disclose an integral nozzle extending out of the canister or an anti-back flow valve in the connector assembly as defined in claims 1/38 and 17. It similarly does not disclose a separate canister and housing having a drive mechanism to force the piston to inject fluid. Similarly, it does not disclose a cap or gradient markings that would be useful in metering (as opposed to filling) the implement and, it is submitted, does not anticipate any of the claims.

170. Finally, with respect to Robinair, it is submitted that it clearly does not disclose an integral nozzle or a connector assembly including a connector on a first end of the flexible conduit to engage with said integral nozzle (claim 1); or a predetermined amount of

fluid maintained in the canister at ambient pressure or a connector assembly including an anti-back flow valve in the assembly (claim 17). In addition, it does not include a cap (claim 3), a housing and drive mechanism (claim 7) or an anti-back flow valve (claim 38). Again, it is submitted that Robinair clearly does not anticipate any of the claims of the '024 patent.

I am of the opinion that claims 1, 4, 5, 6, 7, 9, 17, 20, 21 and 38 are not anticipated by the QUEST, CLASSIC or ROBINAIR references respectively.

[228] **Issue 7.(d)**

The claim is obvious as a result of the references and common general knowledge identified by the defendant's experts.

I would apply the same law on obviousness as I applied for the '673 Patent. I am of the view that the prior art put forward by the defendant does not cause me to conclude that the '024 Patent was obvious.

[229] The evidence establishes that before the introduction of the plaintiff's SPOTGUN, there was no teaching of any separate canisters or canisters received in housings having piston driving means. As well, there was no disclosure of a connector assembly which included a release valve and anti-back flow valve as set out in the '024 Patent. The prior art would not lead a person skilled in the art to the invention claimed. The claims are not obvious, as a result of the references and common general knowledge identified by the defendant's experts.

[230] **Issue 7.(e)**

The claim is ambiguous as a result of the use of the term “release valve”.

This Court has discussed the invalidity of claims due to ambiguity in *Letourneau v. Clearbrook Iron Works Ltd.* (2005), 44 C.P.R. (4th) 345 (F.C.) at page 356. Mr. Justice Mosely stated:

37. 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. 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.).

38. 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.).

[231] The issue of ambiguity that has been raised in the present case is in respect of the meaning of the term “release valve”. The plaintiff’s expert, Jerome Lemon, at paragraph 31 of his expert affidavit (Exhibit 33) states as follows:

. . . The term “release valve” is not one that I would use for any particular type of connector or valve for connection to a charge port of service valve of an a/c or refrigeration system. However, as of June 1999, most connectors adapted for coupling with a/c and

refrigeration charge ports included a valve that could close the end of the charging hose, and I take the use of the term “release valve” to require such a valve in the connector. . . .

And at paragraph 19 of his rebuttal affidavit (Exhibit 79) he stated:

The obvious difficulty of the Defendant’s expert Frise to understand the concept of a “release valve” as that term is used in the ‘024 patent and in relationship to an a/c system coupler appears to me to demonstrate his lack of familiarity with a/c service techniques and tools. . . . His later (paragraph 40) quote from my affidavit regarding the meaning of “release valve” is taken out of context and he does not indicate that I clearly stated that I understood the term to refer to a hose having a valve in the hose connector to the a/c system. As will be evident already, I do not view the term “release valve” to be ambiguous at all when considered in the context in which it is used.

[232] Dr. Frise did state on cross-examination as follows at page 84 of the June 19, 2008 transcript:

Q. In your affidavit, at page 22, Paragraph 34, under the heading “Ambiguity”, you discuss your attempt to understand the term “release valve”, correct?

A. Yes.

Q. And that is in the context of the specification, correct?

A. It appears throughout the patent.

Q. But with that effort you made, you could not come to any conclusion as to what words should mean?

A. I find the term ambiguous. But by putting together the pieces of information in the patent, I concluded it is the device at the end of the conduit, which permits connection to the air conditioning system.

Q. It actually says that in a sense in the claim, does it not?

A. In a sense, I guess it does. If I could just review the claim?

[233] I am of the opinion that, considering the evidence of the experts, the term “release valve” is not ambiguous. My opinion is fortified by the fact that the release valve 52 shown in the specification meets the experts’ definition. The defendant’s submission that the claims of the ‘024 Patent are invalid on the basis of ambiguity is rejected.

[234] **Issue 8**

Is the defendant liable for infringement or inducing infringement of the identified claims of the ‘673 Patent or the ‘024 Patent?

It should be noted that a bifurcation order has been issued in this action. As a result, questions about the extent of infringement and damages flowing from or profits arising from any infringement are to be determined separately after trial on any remaining issues if such issues have to be decided.

[235] The defendant is alleged to have infringed in two ways, namely, directly and by inducing and procuring others to directly infringe.

[236] The elements required to be found in order to have a finding of inducing or procuring infringement were set out by the Federal Court of Appeal in *AB Hassle v. Canada (Minister of National Health and Welfare)* (2002), 22 C.P.R. (4th) 1 (F.C.A.) at page 7:

Thirdly, O’Keefe J. held that Apotex had neither induced nor procured any infringement. He outlined the test that must be satisfied when a patentee relies on the doctrine of induced infringement. Each of the following elements must be proved:

(1) that the act of infringement was completed by the direct infringer;

(2) the completed act of infringement was influenced by the seller, to the point where without said influence, infringement by the buyer would not otherwise take place; and;

(3) the influence must knowingly be exercised by the seller, such that the seller knows that his influence will result in the completion of the act of infringement.

[237] In paragraphs 176 and 177 of the plaintiff's closing argument, it outlines how it believed the defendant infringed. These two paragraphs state:

176. In the present case, the Defendant infringes the apparatus and canister claims directly through the sales of its impugned products in kits and of cartridges alone or, in the case of DYE STICK and RETRO STICK, as part of the injector itself. Further, it is submitted that the Defendant may be liable for infringement by inducing and procuring infringement of the process claims in issue by end consumers of the impugned products. In that regard, it may be noted that the defendant not only sells complete kits adapted only for infringing use, but provides explicit directions directing end consumers to use the products in a fashion that infringes the claims.

177. It is well established that where the Defendant alone, or in association with another person, sells all of the components of an invention to a consumer along with instructions on how to assemble or use the components to obtain the invention, the Defendant is liable for inducing infringement.

I agree with the plaintiff and find both direct and for inducing or procuring infringement. Direct infringement is also discussed earlier in these reasons.

[238] **Issue 9**

Is the plaintiff liable for making false and misleading statements contrary to subsection 7(a) of the *Trade-marks Act*?

Subsection 7(1) and sections 52 and 53.2 of the *Trade-marks Act*, R.S.C. 1985, c. T-13 state:

7. No person shall

(a) make a false or misleading statement tending to discredit the business, wares or services of a competitor;

...

52. In sections 53 to 53.3,

"court" means the Federal Court or the superior court of a province;

...

53.2 Where a court is satisfied, on application of any interested person, that any act has been done contrary to this Act, the court may make any order that it considers appropriate in the circumstances, including an order providing for relief by way of injunction and the recovery of damages or profits and for the destruction, exportation or other disposition of any offending wares, packages, labels and advertising material and of any dies used in connection therewith.

[239] These provisions set up a statutory cause of action for which damages may be awarded if a person is damaged by false or misleading statements by a competitor tending to discredit the claimants' business, wares or services. In *S. & S. Industries Inc. v. Rowell* (1966), 48 C.P.R. 193 at 197 (S.C.C.), the Court stated:

The combined effect of ss. 7(a) and 52 of the Trade Marks Act is to create a statutory cause of action for which damages may be awarded if a person is damaged by false or misleading statements by a competitor tending to discredit the claimant's business, wares or services. The essential elements of such an action are:

1. A false or misleading statement;

2. Tending to discredit the business, wares or services of a competitor; and
3. Resulting damage.

[240] The Courts have also found that damage is a necessary element for finding liability under subsection 7(1). In *BMW Canada Inc. v. Nissan Canada Inc.* (2007), 60 C.P.R. (4th) 181 at pages 192 and 193, the Federal Court of Appeal stated:

33. With respect to the third component, i.e. damages, the trial judge accepted the respondents' argument that, once the first two elements are shown to exist, damages are presumed. At paragraph 109 of his decision, the trial judge stated the following:

In the absence of evidence of damages which, in accord with the Court's pre-trial bifurcation order will be settled after submissions to be made by the parties, I assume, subject to further consideration, that there will be damages, whether nominal or substantial.

34. As indicated by the trial judge, the Bifurcation Order dated October 5, 2006, orders that the issues of liability be severed from the issues of extent of damages and accounting of profits, and that the production of documents, oral discovery on the issues of extent of damages and accounting of profits be postponed until after judgment on the issues of liability.

35. Without commenting on the first two elements, I find the trial judge erred in law in assuming that there would be damages. Actual or potential damage is a necessary element in finding liability under paragraph 7(b). In the absence of evidence in this regard, the Court cannot conclude that there is liability: *Tommy Hilfiger Licensing Inc. et al. v. Quality Goods I.M.D. Inc. et al.* (2005), 267 F.T.R. 259 at paragraphs 137-138 (F.C.). A plaintiff must "demonstrate that he suffers or, in a *quia timet* action, that he is likely to suffer damage by reason of the erroneous belief engendered by the defendant's misrepresentation that the source of the defendant's goods or services is the same as the source of those offered by the plaintiff": *Ciba-Geigy Canada Ltd. v. Apotex Inc.*, *supra*, at paragraph 32 citing *Reckitt & Colman Products Ltd. v. Borden Inc.*, [1990] 1 All E.R.

873 (H.L.) at page 880. See also *Pro-C Ltd. v. Computer City, Inc.* (2001), 55 O.R. (3d) 577 at paragraph 24.

36. A bifurcation order does not relieve the respondents from the necessity of proving the existence of damage as an element of their cause of action. It simply defers proof of the extent of the damage pending a determination as to the appellants' liability.

[241] In the present case, there was a bifurcation order. The defendant did not prove any damages therefore this claim must fail. The Federal Court of Appeal spoke quite clearly on this point. The defendant did not prove one of the essential elements of the action, namely, resulting damage.

[242] The defendant's counterclaim for damages under section 7(a) of the *Trade-marks Act* is dismissed.

[243] I would note that I gave more weight to the expert testimony of Jerome Lemon than to the evidence of the defendant's experts because of his practical experience and direct answers.

[244] In summary, I hold as follows:

1. A declaration will issue as between the plaintiff and the defendant that Canadian Patents 2,235,673 (the '673 Patent) and 2,224,024 (the '024 Patent) are owned by the plaintiff and are valid and subsisting.

2. A declaration will issue that the defendant has infringed claims 1, 2, 3, 4, 7, 8, 9, 10, 14, 15 and 16 of the '673 Patent and claims 1, 2, 3, 5, 6, 7, 9, 17, 18, 19, 20 and 38 of the '024

Patent and has induced and procured infringement of claims 1, 2 and 3 of the '673 Patent and claim 9 of the '024 Patent by others.

3. Interim, interlocutory and permanent injunctions will issue to restrain the defendant by itself or by its shareholders, directors, officers, agents, servants, employees, affiliates, subsidiaries, or any other entity under its authority or control from:

(a) directly or indirectly infringing any claims of the '673 Patent or the '024 Patent; and

(b) inducing or procuring others to infringe claims of the '673 Patent or the '024 Patent.

4. The defendant is directed to forthwith deliver up to the plaintiff all articles in its possession or power, used, made or being made in infringement of the said '673 Patent or the '024 Patent, or that such articles be destroyed.

5. The defendant shall pay damages to the plaintiff in an amount to be determined or in the alternative to the order for damages, an accounting of the profits made by the defendant as a result of its unlawful activities. If the parties cannot agree on the manner of determining the extent or amount of damages, I retain jurisdiction to deal with this matter.

6. The defendant pay to the plaintiff reasonable compensation for acts on the part of the defendant after the applications for the '673 Patent and the '024 Patent became open to public inspection and before the grant of the said patents, that would have constituted an infringement of the respective patents if they had been granted on the day the application became open to public inspection.

7. The plaintiff is awarded pre-judgment and post-judgment interest.

8. The defendant's counterclaim for damages under subsection 7(1) of the *Trade-marks Act* is dismissed.

9. The parties may make submissions to me on costs either orally or in writing. This was requested by the plaintiff at the end of its closing oral submissions. I retain jurisdiction to deal with the costs issue.

AMENDED JUDGMENT

UPON reading the pleadings herein;

AND UPON considering the evidence tendered at trial;

AND UPON reading the submissions of the parties;

AND UPON hearing the oral submissions of counsel for the parties;

IT IS DECLARED that:

1. A declaration will issue as between the plaintiff and the defendant that Canadian Patents 2,235,673 (the '673 Patent) and 2,224,024 (the '024 Patent) are owned by the plaintiff and are valid and subsisting.

2. A declaration will issue that the defendant has infringed claims 1, 2, 3, 4, 7, 8, 9, 10, 14, 15 and 16 of the '673 Patent and claims 1, 2, 3, 5, 6, 7, 9, 17, 18, 19, 20 and 38 of the '024 Patent and has induced and procured infringement of claims 1, 2 and 3 of the '673 Patent and claim 9 of the '024 Patent by others.

IT IS ORDERED that:

1. Interim, interlocutory and permanent injunctions hereby issue to restrain the defendant by itself or by its shareholders, directors, officers, agents, servants, employees, affiliates, subsidiaries, or any other entity under its authority or control from:

(a) directly or indirectly infringing any claims of the '673 Patent or the '024 Patent; and

(b) inducing or procuring others to infringe claims of the '673 Patent or the '024 Patent.

2. The defendant is directed to forthwith deliver up to the plaintiff all articles in its possession or power, used, made or being made in infringement of the said '673 Patent or the '024 Patent, or that such articles be destroyed.

3. The defendant shall pay damages to the plaintiff in an amount to be determined or in the alternative to the order for damages, an accounting of the profits made by the defendant as a result of its unlawful activities. If the parties cannot agree on the manner of determining the extent or amount of damages, I retain jurisdiction to deal with this matter.

4. The defendant pay to the plaintiff reasonable compensation for acts on the part of the defendant after the applications for the '673 Patent and the '024 Patent became open to public inspection and before the grant of the said patents, that would have constituted an infringement of the respective patents if they had been granted on the day the application became open to public inspection.

5. The plaintiff is awarded pre-judgment and post-judgment interest.

6. Upon noting that I omitted to include as part of my judgment, the dismissal of the defendant's counterclaim, I would correct the judgment by adding the following:

The defendant's counterclaim for damages under subsection 7(a) of the *Trade-marks Act* is dismissed.

7. The parties may make submissions to me on costs either orally or in writing. This was requested by the plaintiff at the end of its closing oral submissions. I retain jurisdiction to deal with the costs issue.

8. Reasons for this judgment will follow and I retain jurisdiction to issue the reasons.

“John A. O’Keefe”

Judge

FEDERAL COURT
SOLICITORS OF RECORD

DOCKET: T-824-04

STYLE OF CAUSE: UVVIEW ULTRAVIOLET SYSTEMS INC.

- and -

BRASSCORP LTD.
(d.b.a. CLIPLIGHT MANUFACTURING COMPANY)

PLACE OF HEARING: Toronto, Ontario

DATE OF HEARING: June 9 - 25, 2008

**REASONS FOR JUDGMENT
AND JUDGMENT OF:** O'KEEFE J.

DATED: March 3, 2009

APPEARANCES:

Brian Isaac
Joseph Fraresso
Kevin Graham

FOR THE PLAINTIFF

Chris Kvas
Steven Leach
Kenneth Hanna
David Lam

FOR THE DEFENDANT

SOLICITORS OF RECORD:

Smart & Biggar
Toronto, Ontario

FOR THE PLAINTIFF

Ridout & Maybee LLP
Toronto, Ontario

FOR THE DEFENDANT