

T-2028-95

BETWEEN:

**WHIRLPOOL CORPORATION and
INGLIS LIMITED**

Plaintiffs

- and -

CAMCO INC., and GENERAL ELECTRIC COMPANY

Defendants

REASONS FOR JUDGMENT

CULLEN J.:

THE FACTS

Canadian Patent No. 1,045,401 [hereinafter, the "'401 patent'"], Canadian Patent No. 1,049,803 [hereinafter, the "'803 patent'"], and Canadian Patent No. 1,095,734 [hereinafter, the "'734 patent'"] are patents for dual action agitators for clothes washing machines, owned by Whirlpool Corporation [hereinafter, "Whirlpool"]. Inglis Limited is a licensee under them. In the words of counsel for the plaintiffs, these three patents are for different embodiments and improvements on the dual action agitator.

The filing, grant and priority dates are as indicated on the face of the '401, '803, and '734 patents. The invention dates for the '401, '803, and '734 patents are at least as early as July 12, 1972 for the '401 patent; at least as early as March 22, 1973 for the '803 patent; and at least as early as June 5, 1974 for the '734 patent. The first dual action agitator of any kind was disclosed to the public in June, 1975.

In mid-August 1995, the defendant General Electric Company [hereinafter, "GE"] introduced to the U.S. market agitators and washers incorporating dual-action agitators of the type described and claimed in the patents. The defendant, Camco Inc. [hereinafter, "Camco"], has sold in Canada automatic washing machines having agitators as exemplified by the plaintiffs' production number 6.

The parties agree that each of claims 1, 2, and 5 of the '803 patent, except for the element identified as a "sleeve," aptly describe the defendants' agitator identified as the plaintiffs' production number 6.

The parties agree that each of claims 1 through 5, 7, and 9 through 13 of the '734 patent, but not claims 6, 8, and 14 aptly describe the defendants' agitator identified as the plaintiffs' production number 6.

The defendant GE has agreed that if the defendant Camco is found to have infringed any valid claim or claims of the '803 patent, GE shall be deemed to have infringed that claim or those claims as well.

The allegations

The plaintiffs allege that, in 1995, on the expiry of the plaintiffs' U.S. dual action agitator patents, the defendants launched a new agitator that copied the plaintiffs' agitator. The plaintiffs allege that GE, acting in concert with Camco, arranged for the introduction of these agitators and washers without the licence or consent of the plaintiffs in Canada. The '803 patent was still in force in Canada when the defendants introduced their "copy" agitator in Canada. The plaintiffs seek damages and profits and costs with respect to this patent.

Specifically, the plaintiffs allege that claims 1, 2, and 5 of the '803 patent and all of the claims (claims 1 through 14) of the '734 patent are infringed by the defendants.

The plaintiffs do not allege that the '401 patent is infringed, but this patent is relevant because it is the first of the plaintiffs' three Canadian patents that cover dual action agitators, and is the subject of allegations by the defence.

The defendants allege that the '803 patent is not infringed by their agitator because the '803 patent is for an easily removable accessory sleeve, whereas this element is not present in the defendants' agitator. Alternatively, the defendants allege that claims 1, 2, and 5 of the '803 patent are broader than the invention made because they claim the oscillating agitator as well as the unidirectional auger. Therefore, the patent is invalid.

The defendants allege that the '734 patent is invalid because all of its claims are invalid. The basis of this allegation is that the invention of the '734 patent is the mere substitution of flexible vanes for rigid vanes in the '401 and '803 patents. This substitution:

- (i) would have been obvious to a person skilled in the art;
- (ii) indicates double patenting; and
- (iii) is a mere aggregation of parts and required no inventive ingenuity.

The defendants further allege that claims 1 to 11, inclusive, are invalid because they are broader than the invention made and described. They are broader because they claim the entire agitator and not just the alleged improvement of flexible vanes. The defendants allege that, in any event, they could not have infringed claims 6, 8, and 14 because the defendants' agitator does not have a drive means to continuously drive and rotate as called for in those claims.

Relief sought

The plaintiffs request declarations of validity of both the '803 and '734 patents.

With respect to the '734 patent, the plaintiffs seek a permanent injunction to preserve the last bit of life left in that patent.

The plaintiffs also seek damages or profits, to be determined upon a subsequent reference, as well as costs, including costs of the counterclaim which was "withdrawn" at the last minute; pre-judgment and post-judgment interest; and applicable taxes.

The defendants seek declarations that the '803 and '734 patents are invalid and that the defendants' agitator does not infringe the impugned claims of those patents. The defendants request that this action be dismissed, with costs and applicable taxes to the defendants. The

defendants also request that, should infringement be found on the defendants' part, the plaintiffs should not be entitled to elect between damages or profits.

DISCUSSION

The patents-in-suit: background

Patent 401: This patent is entitled, "Combined Oscillating and Unidirectional Agitator for Automatic Washer." Its inventor is Mr. Clark I. Platt. This patent is for a two-part, dual action agitator that is useful with large or heavy clothes loads because it improves the movement of the clothes within the washing machine, thereby improving the washing action. The upper part consists of a unidirectional auger; the lower part consists of a vaned, oscillating agitator. This patent is silent on what kind of vanes are on the lower agitator, save for the requirement that they be vertically oriented and extending outwardly by a greater amount than at least one of the inclined vanes on the upper auger. The drive system involves a driven oscillating shaft.

The prior art described in the patent focuses on examples of other two-part agitators. However, it also includes a reference to "conventional," one-piece oscillating agitators that wash large clothes loads poorly. There is no specific mention of the agitator produced by the company Maytag, also known as the Smith patent 3,381,504 [hereinafter, the "Smith patent"] as prior art.

This patent has expired. There is no infringement allegation regarding this patent.

The plaintiffs' characterize the '401 patent as describing a washing machine with a dual-action agitator with rigid vanes on the lower agitator.

The defendants' characterize the '401 patent as describing a washing machine with a dual-action agitator which allows for either rigid or flex vanes on the lower agitator.

The defendants allege that this patent is prior art to the '734 patent.

A preliminary word about the witnesses.

Mr. Werner was called by the plaintiffs as an expert in agitators and wash systems. Mr. Werner has in excess of twenty years of agitator engineering experience, and was very familiar with dual action agitation generally. He is currently a lead engineer in development at Whirlpool Corporation, a company he has worked for since completing college in 1976.

Throughout Mr. Werner's evidence presented in chief and his lengthy cross-examination, I not only heard Mr. Werner's testimony and examined his exhibits, but I also had ample opportunity to observe and assess his demeanour. Mr. Werner's testimony, was, unfortunately, less than helpful to this Court. It is evident from Mr. Werner's argumentativeness, his unwillingness to certain answer questions in a plain and straightforward manner, his reluctance to concede seemingly obvious points, and the weakness of his explanations on points disfavoured the plaintiffs, that his was a mind unwilling to seriously consider or understand points that did not support the plaintiffs' case. This leads me to conclude that this very knowledgeable person is more inclined towards giving evidence favourable to his employer, the plaintiff Whirlpool. Mr. Werner's credibility, in my view, is seriously undermined. He presented evidence more from the view-point of an advocate, rather than an expert. I bear in mind that Mr. Werner has gone through lengthy discoveries and cross-examinations, and that this may have had a negative effect on his attitude while testifying. But, although I do not discount Mr. Werner's evidence in a wholesale manner, I cannot, regarding the points mentioned above, trust it enough to fully accept it.

The defendants called Mr. Mellinger as an expert. Mr. Mellinger is a retired mechanical engineer with many years of service at Maytag, the producer of a unitary action agitator with flex vanes that has enjoyed much commercial success. He began work at Maytag in 1954. He was a product engineer from 1962 to 1972, managing the design of washing machines. After that, he was in charge of research and development at Maytag until 1992. Since retiring, Mr. Mellinger devotes his time to volunteer work and charities. He testified that he is being paid a fee by GE to testify. However, he is donating this fee, apart from his direct expenses, to the scholarship fund, "Dollars for Scholars," which he chairs.

I found the evidence of Mr. Mellinger to be enlightening and trustworthy. It is trustworthy because Mr. Mellinger presented his evidence in a frank and straight-forward manner, and readily made admissions. He appeared to answer all questions to the best of his

ability as an expert in his field, and did not act as an advocate in any way. I believe that he answered all questions put to him carefully and honestly.

The plaintiffs' second witness, Mr. Pielemeier, is an engineer also employed by Whirlpool, with at least 37 years of experience with washing systems. At the material time, he had been with Whirlpool for some 15 or 20 years, and was part of the Product Development Department. He worked with the inventors of the patents before this Court.

Although Mr. Pielemeier's direct experience with the patents at issue is superior and incomparable to that of the other witnesses who testified at the hearing, I find that Mr. Pielemeier's expert opinion about the patents to less helpful than I would have liked it to have been. This is because Mr. Pielemeier is, in his own words, a confirmed sceptic when he approaches patents; he reads patents with a critical eye based on his own knowledge. The task of understanding the claims of a patent is to be done dispassionately, with a mind willing to understand -- not by a mind desirous of misunderstanding. I cannot, therefore, characterize Mr. Pielemeier as a proxy for the notional skilled worker who can give a purposive construction to the patents. However, due to Mr. Pielemeier's direct experience with the inventions disclosed in the patents, his evidence is, nonetheless, of value.

I will deal with each patent respectively: patent '803 in Part A, and then patent '734 in Part B.

PART A

1. The claims in suit: the '803 patent

The specific claims in suit merit reproduction here. They are as follows:

Claim 1 reads:

1. An agitator for a washing machine having a driven oscillating shaft, said agitator comprising: first agitator portion capable of being mounted on said shaft by means of a locked, non-rotating connection and having an upper part, and a lower part provided with outwardly extending substantially vertically oriented vanes; a second agitator portion in the form of a sleeve having at least one outwardly extending, inclined vane, said sleeve being rotatably mounted on the upper part of the first agitator portion; and a one-way clutch located between the first and second agitator portions, the first agitator portion being adapted to drive said clutch and the second agitator portion being adapted to be driven by

said clutch so that rotation of the first agitator portion gives a positive rotation to the second agitator portion in only one direction of rotation of the first agitator portion, said inclined vane being inclined upwardly with respect to the direction of positive rotation of the second agitator portion, and at least the lower parts of said vertically oriented vanes extending radially outwardly by a greater amount than said at least one inclined vane.

Claim 2 reads:

2. An agitator according to claim 1 wherein said at least one vane of said sleeve is in the form of a helix.

Claim 5 reads:

An agitator according to claim 1, claim 2 or claim 3 wherein said lower part of the first agitator portion includes a flared skirt at the lower end thereof.

2. Construction of the '803 patent

General principles

In *Cochlear Corp. v. Cosem Neurostim Ltée.* [hereinafter, *Cochlear Corp.*]¹ Mr. Justice Joyal stated the general principles concerning the rules for the construction of claims in the following terms, at page 31:

It is trite law that the first duty of the Court is to construe the claims of the patent at issue. This is a question of law, as provided for in section 36 [*Patent Act*, R.S.C. 1970, c. P-4] (now section 34) of the *Patent Act*, R.S.C. 1985, c. P-4, which requires the applicant to fully describe his invention and to set out clearly the various steps in, *inter alia*, its making and construction, its principle, its sequence or steps as to distinguish it from other inventions as well as the particular improvement or combination which is claimed.

An overview of the jurisprudence also reveals certain guidelines with regards to the proper construction of a patent. In this regard, the leading case is *Consolboard Inc. v. MacMillan Bloedel (Saskatchewan) Ltd.* [1981] 1 S.C.R. 504, [1981], 56 C.P.R. (2d) 145, 122 D.L.R. (3d) 203, [1981] where the Supreme Court of Canada held that patent specification is addressed not to the public in general, but to persons skilled in the particular art of the patent and having common knowledge in the art. In other words, regard must be given to the so-called "man skilled in the art". Furthermore, the task of understanding the claim is to be done "dispassionately", regardless of any attack of its validity: *Morenco Industries Inc. v. Creations 2000 Inc.* (1984), 1 C.P.R. (3d) 407 (F.C.T.D.).

More recently, in *Hi-Qual Manufacturing Ltd. v. Rea's Welding & Steel Supplies* (1994), 55 C.P.R. (3d) 224 at pp. 227-8, 74 F.T.R. 99, 46 A.C.W.S. (3d) 750 [hereinafter, *Hi-Qual Manufacturing*], Madame Justice Tremblay-Lamer adopted the following guidelines with respect to the proper construction of patents:

¹ (1996), 64 C.P.R. (3d) 10 (Fed.T.D.).

- i. The relevant date for construction is the effective date of filing the patent application.
- ii. Construction is for the court, viewed through the spectacles of a person skilled in the art.
- iii. The Specification must be construed as a whole.
- iv. A Specification is construed without reference to other documents.
- v. Construction must be purposive, neither benevolent nor harsh.

...

- (a) What is "essential" is a question of construction.
- (b) The same principles of construction apply to all patent specifications.
- (c) Where more than one construction may reasonably be reached, the court favours one that upholds the patent.
- (d) Where possible, different meanings should be ascribed to different claims."

Section 34(2) [now 43(2)] of the Act provides that the specification shall end with the claims stating distinctly and in explicit terms the things that the applicant regards as new and in which he claims an exclusive property or privilege.

It is essential, first, to construct the patent in order to discern what the invention disclosed by it actually is. Then, the statutory presumption of the validity of the patent takes over, and there is a certain onus on the defendants to disprove validity. After validity is determined, we can address the question of infringement, if necessary.

Analysis

(a) is "removability" the invention?

To support their defence of non-infringement, the defendants point to numerous references in the patent and associated literature that speak to the removability of the upper auger. The question which must be answered is whether or not "removability" is the invention itself. It is relevant, here, to look at what parts of the patent refer to "removability."

(i) the title of the patent

The defendants' submission: The defendants submit that if the invention as disclosed in the '803 patent is a removable or detachable accessory, then either the defendants' patents do not infringe this patent, or the patent is invalid.

To support the allegation that the plaintiffs' invention is necessarily a removable or detachable accessory, the defendants rely primarily on the title of the '803 patent, "Unidirectional Agitation Accessory for Automatic Washer" [emphasis mine]. The defendants contrast this title with that of the preceding '401 patent, "Combined Oscillating and Unidirectional Agitator for Automatic Washer" [emphasis mine]. Since the entire agitator was already covered in the '401 patent, the '803 patent is really only for the upper portion of the agitator, which has the added characteristic of removability. According to this characterization of the invention, the '803 patent should not include the oscillating bottom portion of the agitator.

The law: It is insufficient to rely on the title of the patent to construct a patent. The standards for construction of a patent in this regard, as set out in *Hughes and Woodley on Patents*² at page 386 bear repeating:

In construing a patent, the claims are the starting point. The claims alone define the statutory monopoly and the patentee has a statutory duty to state, in the claim, what the invention is for which protection is sought. In construing the claims, recourse to the rest of the specification is: (1) permissible to assist in understanding the terms used in the claims; (2) unnecessary where the words are plain and unambiguous; and (3) improper to vary the scope or ambit of the claims. This does not mean that claims are never to be construed in light of the rest of the specification but it means that the resort is limited to assisting in comprehending the meaning in which words or expressions contained in the claims are used, reliance on stray phrases in the disclosure for assistance is not permitted, nor may the disclosure be used to change a claim from one subject-matter to another, or to make the claim say something it does not say. ... However, the claim must not be broader than the invention disclosed. The patent is to be read by a person willing to understand, but read dispassionately, with a judicial anxiety to support a really useful invention.

[emphasis mine]

Analysis: This Court looks at the claims first when constructing a patent. The title of the patent is, in itself, an insufficient indicator of the essence of the patent. In the claims at issue, what I see described therein is a two-part agitator with a one-way clutch located between the two parts. The claims are plain and unambiguous. The only cause of concern, that would make me look at other parts of the patent for clarification, would be the reference to a "sleeve" in claim 1. What is such a sleeve? I otherwise find nothing else in the claims in suit to lead me to believe that the invention is restricted to a removable upper auger.

(ii) reference to the specifications not found within the claims themselves

² Roger T. Hughes et al., *Hughes and Woodley on Patents*, rev. ed. (Markham: Butterworths Canada Ltd., 1984).

The defendants' submission: The defendants further support the above argument with reference to the portion of the '803 patent entitled, "BACKGROUND OF THE INVENTION: Field of Invention." Here, the invention disclosed in the '803 patent is described as "an agitator accessory consisting of a detachable vaned sleeve structure which cooperates with the agitator vanes in forcing the fabrics being washed downwardly toward said agitator vanes as the agitator oscillates."

Analysis: I am not convinced that the above reference confines the invention strictly to a removable upper auger. The normal, grammatical construction to be given to this sentence is that all of the words following the phrase "consisting of" describe the invention, and not just the first five words following that phrase. Furthermore, there is nothing to indicate that the phrase "agitator accessory" does not refer to the entire dual-action agitator, which, significantly, was shown in evidence to be easily removable from the washing machine.³ Nothing that counsel for the defendants has presented convinces me otherwise.

The defendants' further submission: The defendants also refer to the portion of the patent entitled, "Description of the Preferred Embodiments," where it is noted that the "agitator accessory is easily removable from the agitator itself so that the machine can be utilized with or without the accessory, depending upon the size of the load being washed."

The law: A general statement of the law is found in *Hughes and Woodley on Patents*⁴ at page 386:

Where the words used are unambiguous, a claim should not be limited to the preferred embodiment. The Court should not be too technical in its approach. The nature of the invention must be found in the specification, and in particular, in the claim; they define the monopoly and are addressed to persons skilled in the art; the claims provide enlightenment as to what the invention really is, and define its scope, but the disclosure describes the invention. The claim must disclose the invention but it is not required to disclose the advantages.

This general statement is expressed in the case law of the Federal Court of Appeal in *Unilever PLC v. Procter & Gamble Inc.* (1995), 61 C.P.R. (3d) 499 at 507 as follows:

... If a patentee defines and limits with precision, in language which is plain and unambiguous, what it is he claims to have invented, the courts are not "to restrict or expand or qualify" the scope of an invention by reference to the body of the

³ The entire dual-action agitator was sold as an accessory unto itself from about 1976 or 1977 onwards.

⁴ *Supra*, note 2.

specification: *Electric & Musical Industries Ltd. v. Lissen Ltd.* (1939), 56 R.P.C. 23 (H.L.), *per* Lord Russell of Killowen, at p. 41. ...

The legal construction of this patent is that removability is a feature of the invention. The brief note concerning removability referred to by the defendants, found outside of the claims of the patent themselves, cannot be described as the "essence" of the invention, unless if the claims specifically dwell on this feature, and they do not. Removability is an advantage of the invention, but it is not the essence of the invention.

Rather than looking at stray phrases strewn throughout various sections of a patent, it is more important to try to ascertain what the substance of the invention is.⁵ The decision of the Federal Court of Appeal in *O'Hara Manufacturing Ltd. v. Eli Lilly and Company* (1989), 26 C.P.R. (3d) 1, emphasizes that, in interpreting the patent's claim, it is imperative to ascertain the "intention" of the inventor in a legal sense. The intention reveals the substance of the invention.

How is the Court to discern the intention of the inventor? This can be gleaned from a reading of the patent as a whole, bearing in mind that the claims, first and foremost, define the invention. However, it must be remembered that where the claims are plain and unambiguous, there is no need to reach elsewhere in the patent to discover what the invention is. The claims of the '803 patent are, for the most part, plain and unambiguous.

However, there are several other references in the rest of the patent that indicate that the invention disclosed in the claims may not be the one the inventor had intended. For example, the "Invention Disclosure Sheet" [hereinafter, the "IDS"] for the '803 patent states that the invention is an "agitator accessory" that "can be used when the need arises and removed for regular wash loads." Surely, this cannot refer to the entire dual-action agitator itself. The IDS then goes on to describe the upper auger of the agitator. After reading the IDS in its entirety, it is unclear whether the invention was intended to be merely a removable upper auger accessory for an agitator, or whether it was intended to be an entire agitator that consists of a removable upper auger accessory plus the lower oscillating agitator and attachments. The IDS seems to indicate that the invention is just the removable accessory.

⁵ As stated by Tremblay-Lamer, J. in *Hi-Qual, supra*, the judgment of Madame Justice Reed in *A.T. & T. Technologies Inc. v. Mitel Corp.* (1989), 28 F.T.R. 241; 26 C.P.R. (3d) 238, provides a good review of the guiding principles as the law currently stands:

... (1) in construing a patent one must adopt a purposive construction and not engage in overclose parsing of the words; (2) the question that must always be asked is whether the "pith and marrow" or the substance of the Plaintiff's invention, has been taken; ...

Construction: conclusion

It is settled law that, where more than one construction may reasonably be reached, the court should favour the one that upholds the patent.⁶ I agree with counsel for the plaintiffs that the Summary of Invention as set out in the patent itself, clearly and unequivocally defines that the invention of the '803 patent is the unique drive mechanism connecting the lower agitator to the upper auger in the absence of a drive shaft, and not a removable sleeve. Removability of the upper sleeve, in this patent, is more of a manufacturing or consumer advantage. It is not, however, the invention. To rely on the stray (albeit numerous) references to the feature of removability would have the effect of changing the claims of the invention from one subject matter to another. Where the language of the claims is plain and unambiguous, as it is in the case of the '803 patent, this is not to be done.

Therefore, I find that "removability" is not the invention disclosed in the '803 patent.

The proper construction to be given to the '803 patent may be summarized as follows.

Patent '803 is entitled, "Unidirectional Agitation Accessory for Automatic Washer." Its inventor is Mr. Ernest B. Ruble. This patent differs from the '401 patent in that it teaches a unique drive system for the dual action agitator: a one-way clutch, located between the upper auger and the lower agitator, which allows the upper auger to be powered directly by the lower agitator. The upper auger is sometimes referred to as a "sleeve." The one-way clutch rotates the upper auger intermittently in a counterclockwise direction, during one-half cycles of the oscillatory lower agitator movement. A drive shaft is no longer required, nor is there any need for the vertical alignment of the upper and lower parts of the agitator. In a preferred form of the invention, the upper auger is easily removable from the lower agitator, so that the machine can be utilized with or without the auger. This feature is described in the "Description of the Preferred Embodiments" contained within the patent, but not in the actual claims of the patent.

The lower agitator includes a flared skirt at its lower end. Like the '401 patent, the '803 patent is also silent on what kind of vanes are on the lower agitator, apart from the requirement

⁶ *Cochlear Corp.*, *supra* note 1 at 32.

that the vanes be substantially vertically oriented and extend radiantly outward by a greater amount than at least one inclined vane on the upper auger.

The invention creates, in large washing loads, a highly desirable toroidal rollover movement of clothes, resulting in cleaner, larger loads of wash.

The prior art described in the patent focuses on examples of other two-part agitators. The examples listed are identical to those listed in the '401 patent. Again, as in the '401 patent, it also includes a reference to "conventional," one-piece oscillating agitators that wash large clothes loads poorly. There is no specific mention of the agitator produced by the company Maytag, also known as the Smith patent, as prior art.

3. Validity of the '803 patent

Now that we know what the substance of the '803 patent is, the next step is to determine whether or not the patent is valid.

General principles

In *Cochlear Corp.*,⁷ Mr. Justice Joyal stated the general principles pertaining to the validity of a patent, at page 33 as follows:

As defined by Gordon F. Henderson, Q.C., in *Patent Law of Canada* (Scarborough: Carswell, 1994) at p. 7, a patent is a "temporary monopoly given by the State to make, use or vend a product, apparatus, or process that embodies an invention that meets the following requirements:"

- (1) *Novelty*. The invention must not have been "anticipated" by another patent or a publication that would deem it to lack novelty under that statute.
- (2) *Utility*. The invention must be operative and have some commercial value.
- (3) It must fit in a recognized category, for not all subject-matter is patentable.
- (4) There must be an inventive step. This is question of fact and degree. The fact concerns the advance in the art whereas the degree entails that the advance is neither "obvious" nor merely a "workshop improvement".
- (5) To the foregoing may be added the statutory presumption of validity as stipulated in s. 47 [*Patent Act*, R.S.C. 1970, c. P-4] (now s. 45) of the *Patent Act*, R.S.C. 1985, c. P-4. As is reaffirmed by Decary, J.A. in *Tye-Sil Corp. Ltd. v. Diversified Products Corp.* (1991), 35 C.P.R. (3d) 350, 125 N.R. 218, 41 F.T.R. 78 (C.A.), the onus is always on the party attacking the patent to prove, on the balance of probabilities, its invalidity.

⁷ *Supra*, note 1.

Once (and if) a patent is found to be valid, the Court may proceed to determine whether there is infringement. The validity of the '803 patent in Canada was not attacked until sixteen years after its inception, and, interestingly, after its expiry in the United States. The onus on the defendant to prove invalidity ought to be a heavy one because the patent has been honoured for so long as valid. However, current thinking seems to be that the onus to prove the validity of a patent shifts to the patentee once the attacking party shows some evidence of invalidity, on the balance of probabilities.⁸

Although the *Patent Act* (hereinafter the "*Act*"), was amended in 1987, the provisions of the old *Act* continue to apply for patents issued from applications filed in Canada before October 1, 1989. As patent '803 was issued on March 6, 1979 the following analysis is based on the pre-1989 *Act*.

Analysis

(a) Are the claims of the '803 patent broader than the invention made?

The defendants submit that, because the plaintiffs admitted on discovery that the claims in suit do not have the feature of removability, the claims are broader than the invention disclosed and made. The patent is thus invalid. However, this argument depends on removability being the essential feature of the invention. As I have discussed above, although removability is discussed in the specifications of the patent, this does not mean that removability is the essence of, or determinative of, the patent. The defendants' submissions on overbreadth with respect to removability necessarily fail.

(b) Covetous claiming?

As an elaboration of the claims being broader than the invention defence, the defendants submit that the plaintiffs cannot claim the whole combination of the agitator in the '803 patent, because the invention relates only to a part of the combination; i.e., the removable sleeve. The

⁸ *Tye-Sil Corp. Ltd. v. Diversified Products Corp. et al.* (1991) 35 C.P.R. (3d) 350 at 357-58 (F.C.A) [hereinafter, *Tye-Sil Corp.*].

defendants cite as authority for this proposition *Bergeron v. DeKermor Electric Heating* [1927] 3 D.L.R. 99 at 104 (Ex.Ct.), where it is stated:

A man cannot introduce some variations or improvements, whether patentable or not, into a known apparatus or machine and then claim as his invention the whole apparatus.

Although I agree with this statement of the law, its application on this point is of no help to the defendants, because the invention does not simply consist of the removable upper auger. The invention is the unique dual action agitator with a one-way clutch.

The defendants submit that where the first part of the patent, prior to the description of the preferred embodiment, includes statements of objectives for the invention, these statements can be used to limit the protectable invention to something that achieves the stated objectives. If the claims do not contain the limitation of the stated objectives then they are broader than the invention described. The defendants cite *Amfac Foods Inc. et al. v. Irving Pulp & Paper Ltd.* (1986), 12 C.P.R. (3d) 193 (F.C.A.). The defendants submit that the claims in suit do not give the removability feature that is the invention of the patent. Therefore, the claims are broader than the invention made and disclosed.

However, as the removability feature is not the essence of the invention disclosed in the patent, this argument fails.

Validity: conclusion

The defendants have not provided evidence that shows, even on a balance of probabilities, that the '803 patent is invalid. The presumption of validity thus prevails.

4. Infringement

The '803 patent is now expired, but was in force at the time of the infringement allegations.

Infringement of a valid patent is a mixed question of law and fact. The '803 patent is valid. The determination of the nature of the '803 patent and the interpretation of its claims is a

question of law, and has been addressed above. The question of fact that remains to be determined is what has been done by the alleged infringers, the defendants.

The plaintiffs bear the burden of establishing infringement on a balance of probabilities.⁹

The plaintiffs allege that claims 1, 2, and 5 of the '803 patent are infringed by the defendants. The defendants admit that each of claims 1, 2, and 5 of the '803 patent, except for the element identified as a "sleeve," aptly describe the defendants' agitator identified as the plaintiffs' production number 6. According to these agreed facts, but for the "sleeve" element, there is *prima facie* infringement of the plaintiffs' patent by the defendants.

The plaintiffs have tried to show that the upper auger portion of the defendants' agitator is, indeed, easily removable, and hence fits within the concept of a removable sleeve as envisaged in the '803 patent. To this end, the plaintiffs' main expert witness, Mr. Kurt Werner, made a videotape admitted into evidence, purportedly demonstrating that the defendants' upper auger was easily removable from the lower portion of the agitator. The videotape depicted Mr. Werner, an engineer with many years of experience working with agitators, removing the entire agitator assembly from a washing machine, removing a plastic cover from the upper auger, and then with a power-tool, drilling holes in the top of the agitator. Upon the completion of this procedure, Mr. Werner removes the upper auger from the lower oscillator. Mr. Werner admitted that if the drilling were not done carefully, the agitator assembly could be ruined.

Does the videotape evidence indicate the feature of easy removability of the upper auger? I think not. Mr. Werner's assertions concerning the ease of the removability of the defendants' upper auger, coupled with the videotape demonstration are incredible. If the upper auger were indeed easily removable from the lower oscillator, Mr. Werner could have demonstrated it in the courtroom, rather than on a videotape. After all, numerous agitators were admitted as exhibits during the hearing. From the videotape, we have no evidence of how many attempts it took Mr. Werner to successfully drill the right holes in order to remove the agitator. There is no evidence as to how long it took Mr. Werner to develop this method of removing the auger. Comparing the efforts of Mr. Werner to remove the defendants' upper auger with a drill to the ease of counsel, in the courtroom, in removing the upper auger of the plaintiffs' agitator

⁹ *Lubrizol Corp. v. Imperial Oil Ltd.* (1991), 33 C.P.R. (3d) 1 (Fed. T.D.).

with a mere twist of the wrist, refutes Mr. Werner's evidence. I would hardly characterize Mr. Werner's method of extracting the upper auger from the defendants' agitator as "easily" removing it.

I have other reasons for discounting Mr. Werner's evidence. While testifying, Mr. Warner was argumentative. He only very grudgingly made admissions. Even more importantly, his answers on matters going to the heart of the issues of the case and well within his expertise, such as what constitutes a big load of laundry, were evasive. Taken as a whole, this Court finds Mr. Werner's testimony to be unreliable and of little help on this point.

The upper auger of the defendants' agitator is not easily removable. No instructions are supplied with the agitator on the complex process, as demonstrated by Mr. Werner, required to remove the attached upper auger. I, therefore, conclude that the defendants' upper auger does not literally fit within the concept of a removable sleeve as envisaged in the '803 patent.

But what is the relevance of the reference to the "sleeve" element of patent '803? To analyze this point, I find it useful to return to *Cochlear Corp.*,¹⁰ where Mr. Justice Joyal reviewed the general principles with regard to the question of infringement, beginning at page 37:

As stated by Madame Justice Tremblay-Lamer in *Hi-Qual*, *supra*, the purposive approach to construing patents elaborated by Lord Diplock in *Catnic Components Ltd. v. Hill and Smith Ltd.*, [1981] F.S.R. 60, [1982] R.P.C. 237 (H.L.), has found favour in Canada. As such, the court has moved away from the twofold tests of textual infringement and infringement in substance.

In years past, the court was obliged to consider that twofold test. In the absence of literal of textual infringement, the variants introduced by a defendant which allowed it to avoid falling within the precise wording of the claims, had to be analyzed in order to determine whether they fell within the "substance of the patent" or the "pith and marrow" of the invention. This principle prevented "colourable" evasion of patents claims.

In *Catnic Components Ltd.*, *supra*, Lord Diplock, adopting the purposive approach, formulated the question in the following manner:

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.

¹⁰

Supra, note 1.

Applying this reasoning to the facts of this case, I conclude that strict compliance with "removability" was not intended by the patentee. The advantage of a removable sleeve is not found within the claims of the patent. Therefore, the sole fact that the defendants' agitator is non-removable is not a defence to the allegation of infringement.

At page 38, Joyal J. continues:

Lord Diplock further states that the Court must also consider whether the variant under scrutiny would in fact affect the way the invention worked.

The question of course does not arise where the variant would in fact have a material effect upon the way the invention worked. Nor does it arise unless at the date of publication of the specification, it would be obvious to the informed reader that this was so. Where it is not obvious, in the light of then-existing knowledge, the reader is entitled to assume that the patentee thought at the time of the specification that he had good reason for limiting his monopoly so strictly and had intended to do so, even though subsequent work by him or others in the field of the invention might show the limitation to have been unnecessary. It is to answered in the negative only when it would be apparent to any reader skilled in the art that a particular descriptive word or phrase used in a claim cannot have been intended by a patentee, who was also skilled in the art, to exclude minor variants which, to the knowledge of both him and the readers to whom the patent was addressed, could have no material effect upon the way in which the invention worked.

Applying this reasoning, I find that the defendants' non-removable auger is a "minor variant" as describe above. Removability has no material effect upon the way in which the invention works in large loads.

At page 38, Joyal J. goes on:

As underlined by Madame Justice Tremblay-Lamer in *Hi-Qual, supra*, this approach was first applied by the Federal Court of Appeal in *O'Hara Manufacturing Ltd v. Eli Lilly and Company (1989)*, 26 C.P.R. (3d) 1, which has become a leading authority in Canada. In this case, the Federal Court of Appeal stated the issue in the manner which it presumed Lord Diplock would have expressed and which might, for purposes of the case at hand, be expressed as follows: would the claim language make it obvious to a reader skilled in the art that the cochlear implant could not have been intended to exclude cochlear implants in which stimulation could be carried out by other modes of operation in addition to bipolar sequential stimulation of pairs of electrodes perceived as occurring simultaneously?

The Court of Appeal further stated that in interpreting the patent's claim in order to determine the answers to these types of questions, the Court is merely attempting to ascertain the "intention" of the inventor in a legal sense.

Accordingly, when an inventor claims that a particular element of his invention is necessary, if that element is different in subsequent inventions, no infringement has occurred regardless of whether the element is truly necessary since the inventor is confined to his patent claims. In this regard, the intention of the inventor is essential.

Accordingly, I find that if the inventor of the '803 patent had thought that a removable sleeve was necessary, this element would have been included in the claims of the patent.

Infringement: conclusion

I conclude that, although the element identified as a "sleeve" in the claims of the '803 patent is not present on the defendants' agitator, the upper auger of the defendants' agitator nevertheless, falls within the scope of the '803 patent. However, this point is not determinative of infringement.

What is determinative of infringement is the fact that the defendants' agitator, as exemplified by the plaintiffs' production 6, has flex vanes on its lower oscillating portion. Flex vanes are not specified in the '803 patent. The '803 patent is "mute" on the type of vanes to be used on the lower oscillator. As will be borne out in Part B concerning the '734 patent, I find as a fact that a dual action agitator with flex vanes cannot be the invention disclosed by the '803 patent. My reasons for finding thus are as follows.

The evidence of Mr. Pielemeier is that, at the time of the invention of the dual action agitator, the use of flex vanes had not been contemplated for use with dual action agitation.¹¹ I accept this evidence. I also accept that dual action agitation is in an entirely separate category than unitary action agitation. I, therefore, accept the proposition that even though now, given the knowledge of the successful usage of flex vanes on a dual action agitator, it is only with the benefit of hindsight that one may interpret the '401 and '803 patents to include agitators with flex vanes as practicable inventions. However, absent this hindsight analysis, I must conclude that the vanes referred to in the '803 patent only included rigid vanes within their ambit.

Therefore, an agitator with flex vanes, although not specifically excluded from the '803 patent, is, nevertheless, not included in the '803 patent. The '803 patent contemplates only rigid vanes. The plaintiffs' production number 6 has flex vanes. Therefore, the agitator as exemplified by plaintiffs' production number 6 does not fall within claim 1 of the '803 patent.

¹¹ See, in particular, the evidence outlined on pages 40, and 45-47 of this decision.

In conclusion, I find that the '803 patent is a valid patent. However, it is in no way infringed by the defendants' agitator as exemplified by the plaintiffs' production number 6. I cannot accept the agreed statement of facts stating:

7. Each of claims 1, 2 and 5 of the '803 Patent, except for the element identified as a "sleeve," aptly describe the defendants' agitator identified as plaintiffs' production no. 6.

Accepting this statement as fact would have the effect of ascribing a different meaning to the advance disclosed in the '803 patent, as well as calling into question the meaning of the advance disclosed in the '734 patent. This, I am not prepared to do. It would simply be wrong.

PART B

1. The claims in suit: the '734 patent

All of the claims in the '734 patent are in dispute. Claims 1 through 10 describe the invention. A brief summary of each of the claims is as follows:

Claim 1 gives a general description of a dual action agitator assembly with flex vanes and a drive mechanism for concurrently driving the upper auger portion and the lower oscillating portion of the agitator, which agitator produces a toroidal rollover pattern during a clothes wash.¹²

Claim 2 indicates the location of a skirt subjacent to the flex vanes on the lower portion of the agitator.¹³

Claim 3 describes the flex vanes in relation to the lower skirt.¹⁴

¹² "An agitator assembly for a clothes washing machine comprising: a first agitator element, a second agitator element, drive means for driving said first agitator element in an oscillatory motion and for concurrently driving said second agitator element in an unidirectional rotary motion, said first and second agitator elements cooperating to circulate the contents of the machine in a toroidal rollover pattern within the washing machine, and means associated with said second agitator element for forcing articles adjacent thereto into the oscillatory path of said first agitator element and into said rollover pattern, said first agitator element having formed thereon flexible vanes which are free to flex in response to oscillatory motions of the agitator element, thereby to yieldingly engage fabrics deflected downwardly and lessening high impact loading of the first agitator element."

¹³ "An agitator assembly as defined in claim 1, wherein said first agitator element is provided with a skirt spaced subjacent said flexible vanes which extends under each of said flexible vanes."

¹⁴ "An agitator assembly as defined in claim 2, further defined by each of said flexible vanes being separated from said skirt along a greater portion of its length by a space between said skirt and said vane, thereby to

Claim 4 further describes the flex vanes.¹⁵

Claim 5 speaks to the drive means which intermittently drives the upper auger portion of the agitator.¹⁶

Claim 6 speaks to the drive means which continuously drives the upper auger portion of the agitator.¹⁷

Claim 7¹⁸ describes the agitator as having a drive means that allows for lower oscillatory movement and upper unidirectional movement. The addition of flex vanes results in a continuous toroidal rollover motion of clothes during a wash load. The first portion of the toroidal rollover pattern occurs due to the location of the upper and lower agitator elements. The second portion of the toroidal rollover pattern occurs as a result of the flexing action of the flex vanes on the lower oscillating portion of the agitator.

Claim 8 speaks to the continuous, unidirectional rotation of the upper auger.¹⁹

allow flexing of said flexible vane during washing action."

¹⁵ "An agitator assembly as defined in claim 3, wherein said flexible vanes each have free or detached upper, outer, and lower edges to facilitate free flexing of said flexible vane during washing action."

¹⁶ "An agitator assembly as defined in claim 1, wherein said drive means is constructed and arranged to intermittently drive said second agitator element."

¹⁷ "An agitator assembly as defined in claim 1, wherein said drive means is constructed and arranged to continuously drive said second agitator element." While the defendants admit that claims 1 through 5 aptly describe their agitator, they deny that claim 6 describes it.

¹⁸ "In a clothes washing machine of the vertical axis type having a washing receptacle for receiving washing liquid and fabrics to be washed, agitator means within said receptacle for washing fabrics and for generating a rollover motion to said fabrics, during washing of the fabrics, and drive means for driving said agitator means, said agitator means comprising: a lower agitator element driven by said drive means in an oscillatory motion on said vertical axis, an upper agitator element mounted on said vertical axis above said lower agitator element, said upper agitator element being positively and unidirectionally rotated by said drive means on said vertical axis, means on said upper agitator element for deflecting said fabrics downwardly toward said lower agitator element in a first portion of a toroidal rollover pattern for said fabrics by the coaction of said upper and lower elements, said lower agitator elements including a plurality of circumferentially-spaced, radially-extending, flexible vanes having relatively free end portions positioned outwardly from said vertical axis, and a skirt portion closely positioned beneath said end portions whereby said end portions may flex relative to said skirt portion upon oscillation of said lower agitator element and yieldingly propel said fabrics away from said vertical axis and into a second portion of said toroidal rollover pattern so as to be reengaged by said upper agitator element and thereby generate a continuous rollover motion of said fabrics."

¹⁹ "The invention set forth in claim 7 wherein said drive means includes a drive member which is directly connected to said upper agitator element and constructed and arranged such that said upper agitator element is continuously rotated in one direction on said vertical axis during washing of fabrics." While the defendants admit that claim 7 aptly describes their agitator, they deny that claim 8 describes it.

According to claim 9,²⁰ the upper portion of the agitator is rotated in one direction and must be coaxially aligned with the oscillating lower portion. Claim 9 further speaks to the flex vanes and their ability to aid in the rollover motion of clothes in a dual action agitator, which in turn aids in minimizing tangling due to the action of the upper auger.

Claim 10²¹ describes how washing occurs due to this agitator assembly. The lower oscillating portion of the agitator uniformly scrubs fabrics, and the flex vanes yieldingly flex under relatively heavy wash load conditions. This flexing prevents any undue tangling of the fabrics caused by the unidirectional movement of the upper auger relative to the lower oscillator.

Claims 11 through 14 describe the improvements of the invention. These claims can briefly be summarized as follows:

Claim 11 describes the improvement in the agitator as being a drive means combined with a dual action agitator with flex vanes, which improvement results in scrubbing of the clothes with lessened tangling of the clothes that may occur due to the unidirectional rotation of the upper auger.²²

²⁰ "In an automatic washer having a washing receptacle for containing washing liquid and the items to be washed, agitator means within said receptacle for imparting a rollover motion to said items to be washed, and drive means for driving said agitator means, said agitator means comprising: a lower agitator element driven by the drive means in an oscillatory manner, an upper agitator element mounted above the lower agitator element and coaxial therewith, said upper agitator element being positively rotationally driven by the drive means in one direction only, means associated with the upper agitator element for imparting a downward motion to the items to be washed, and flexible vane means associated with the lower agitator element to yieldingly flex under heavy wash load conditions to minimize tangling of items to be washed due to the movement of said upper agitator element in said one direction only."

²¹ "An agitator assembly for use within a vertical axis washing machine adapted to receive washing fluid and fabrics to be washed within said washing fluid, said agitator assembly comprising: a first agitator member including means for receiving an oscillatory input drive member from said machine for imparting an oscillatory motion to said first agitator member, a second agitator member having fabric deflecting means thereon mounted adjacent said first agitator member and movable relative thereto for urging fabrics positioned adjacent said fabric deflecting means within said washing fluid toward said first agitator member in a generally toroidal fluid circulatory path to effect a scrubbing of said fabrics by said first agitator member, said second agitator member having drive means connected thereto for moving said second agitator member as a separate unidirectional rotational movement relative to said first agitator member, and flexible vane means on said first agitator element for uniformly scrubbing the fabrics to be washed while yieldingly flexing under relatively heavy load conditions thereby preventing any undue tangling of the fabrics caused by the unidirectional rotational movement of said second agitator member relative to said first agitator element."

²² "In an automatic washer having a clothes washing receptacle, agitator means within said receptacle, and drive means having a drive shaft engageable with said agitator means, an improvement in said agitator means comprising: a lower agitator element connected to said drive shaft for oscillating motion therewith, an upper agitator element disposed above the lower agitator element and coaxial therewith, means interconnecting said upper agitator element with said drive means for unidirectional rotation of said upper agitator element, and means on said lower agitator element for scrubbing clothes and for alleviating any tendency for tangling of the clothes occasioned by the unidirectional rotation of said upper agitator element, said means on said lower agitator element comprising a plurality of flexible vanes constructed and arranged to yieldingly flex under relatively heavy clothes wash load conditions."

Claim 12 describes an improvement on dual action agitator as being the toroidal rollover pattern which results from the addition of flex vanes with a lower skirt.²³

Claim 13 speaks to the improvement of flex vanes over rigid vanes in a dual action agitator, which improvement yieldingly engages downwardly deflected materials and lessens high impact loading of the lower oscillator.²⁴

Claim 14 finally describes the improvement as being flex vanes plus a continuous, unidirectional drive means for continuously rotating the upper auger, resulting in positive toroidal rollover of the clothes in the washing machine.²⁵

This patent is due to expire in February or March of 1998.

²³ "An agitator assembly for a clothes washing machine of the type comprising first and second agitator elements respectively driven in oscillatory and unidirectional rotary motions to circulate the contents of the machine in a toroidal rollover pattern within the washing machine and wherein the second agitator element has means for forcing articles adjacent thereto into the oscillatory path of the first agitator element and into the rollover pattern, the improvement wherein said first agitator element has formed thereon flexible vanes which are free to flex in response to oscillatory motions of the first agitator element, thereby to yieldingly engage fabrics deflected downwardly and lessen high impact loading of the first agitator element."

²⁴ "In a washing machine of the vertical axis type having an agitator assembly comprising in combination with a skirt and vane portion oscillatable about an axis and having a plurality of radial vanes spaced about said axis and an auger portion rotatable in one direction about said axis and having a radially extending vane forming a helix about said axis to provide positive toroidal rollover of the clothing in the machine, the improvement of a plurality of vanes for said agitator assembly spaced circumferentially of one another and each of said plurality of said vanes having free and detached upper, outer and lower edges to facilitate free flexing of said vanes relative to the skirt during washing to yieldingly engage downwardly deflected materials and lessening high impact loading of said skirt and vane portion of said agitator assembly."

²⁵ "In a washing machine of the vertical axis type having an agitator assembly comprising in a combination with a skirt and vane portion oscillatable about an axis and having a plurality of radial vanes spaced about said axis and an auger portion rotatable in one direction about said axis and having a radially extending vane forming a helix about said axis to provide positive toroidal rollover of the clothing in the machine, the improvement of a plurality of vanes for said agitator assembly having free and detached upper, outer and lower edges to facilitate free flexing of said vanes relative to said skirt during washing to yieldingly engage downwardly deflected materials and lessening high impact loading of said skirt and vane portion of said agitator assembly, and a continuous, unidirectional driving means for continuously rotating said auger portion during a washing operation." While the defendants admit that claims 9 through 13 aptly describe their agitator, they deny that claim 14 describes it.

2. Construction of the '734 patent

As the same general principles of construction apply here as were canvassed for the '803 patent, they need not be repeated. The following analysis is based on those principles.

The evidence of both the plaintiffs' and defendants' witnesses is that the language of the claims in the '734 patent is clear, unambiguous, and easily understandable. There is thus no need to look further than the claims of the patent to aid in its construction.

The plaintiffs allege that the defendants' agitator infringes all of the claims of the '734 patent. The defendants admit that all of the claims of the '734 patent, except for claims 6, 8, and 14 as they concern a continuous drive, aptly describe their agitator. The issue is thus the construction to be given to claims 6, 8 and 14.

Construction: "continuous drive"

The interpretation to be given to the phrase "continuous drive" in claims 6, 8, and 14 of the '734 patent is a question of law. Claims 6, 8, and 14 call for a continuous drive means. The defendants state that their agitators do not infringe these claims, because the movement of the upper auger is intermittent, and not continuous. Counsel to the defendants submits that the question of fact that flows from the question of law is whether or not the defendants' agitator has the means for a continuous drive.

Counsel to the plaintiffs submits that the defendants' agitator has the means for a continuous drive, as is evidenced by the movement of the auger in light to medium loads.

The evidence

Counsel to the plaintiffs submits that the defendants' agitator has a continuous drive means. To support this argument, Mr. Werner presented videotaped evidence depicting the defendants' agitator functioning in a washing machine with a "medium or light" wash load. A black line was marked on the top of the upper auger, so as to assist in the observation of the movement of the upper auger. In the video, Mr. Werner placed his hand on the auger to simulate the conditions of a heavier wash load. I observed the upper auger to move intermittently under those conditions. When Mr. Werner took his hand off of the auger, it was easy to observe the contrast in movement of the auger in the "medium or light" load.

Counsel to the plaintiffs submits that the movement of the upper auger that could be observed under the conditions of a medium or light load was continuous. At the time of the hearing, I could not discern whether the movement was intermittent or continuous in the medium or light load. Since the hearing, I have reviewed the video many times, and still cannot conclude definitively whether the movement, under such conditions, is continuous or intermittent. At times it appears continuous; at times intermittent. I believe that this may be due to the speed of the movement.

Analysis

The defendants submit that, unlike that which is disclosed in claims 6, 8, and 14 of the '734 patent, their agitator has no such drive means, because there is no continuous driving in heavy or medium loads. In heavy or medium loads, the movement of the upper auger is intermittent. It is only when there is no water or little water in the defendants' agitator that continuous movement may be observed.

I will note, however, that counsel to the defendants did not provide any direct evidence as to what exactly comprises the drive or drive means in the defendants' agitator. He only spoke to what the drive means was not. He did not speak to what it was.

I am not convinced by Mr. Werner's videotaped evidence that, in "medium or light" loads, the drive of the defendants' auger is continuous. This evidence is ambiguous at best. It

does little to help Mr. Werner's credibility to categorically state that the movement is continuous, when his own videotaped demonstration does not make this point obvious.

The claims concerning a continuous drive are not to be read in isolation from the other claims of the patent. The relevant claims concerning the drive of the plaintiffs' agitator are, therefore, as follows. Claim 5 refers to a drive means that intermittently drives the upper auger. Claim 6 refers to a drive means that continuously drives the upper auger. Claim 8 speaks to the continuous, unidirectional rotation of the upper auger. Claim 14 speaks to a continuous, unidirectional driving means for continuously rotating the upper auger.

It is a matter of construction as to what precisely "continuous" refers. Claim 5 speaks to an intermittent drive; claim 6 speaks to a continuous drive. These claims are neither inclusive nor exclusive of each other. Both claims are without any distracting references to rotation of the upper auger. These two claims seem to describe two different, possible embodiments of the drive means of the invention. According to this analysis, both intermittent and continuous drive means are envisaged. It is even possible to include in this equation a drive means that is both intermittent and continuous. That is, one may have a "continuously intermittent" motion, where during the operation of the machine, the motion of the upper auger may continuously be driven or rotated in intermittent pauses or spurts. Therefore, I do not believe that the plaintiffs' argument about the motion of the upper portion of the defendants' agitator goes to the heart of the matter. It is not necessary to show that the drive in the medium or light load is strictly continuous. As long as the movement is not sporadic, it may very well have been contemplated to fall within the scope of the claims of the invention. To my mind, this is the type of motion -- and not a strictly continuous motion -- that was demonstrated in Mr. Werner's videotaped evidence.

Construction: conclusion

Patent '734 is entitled a "Combined Oscillating and Unidirectional Agitator for Automatic Washer." Its inventor is Mr. Clark I. Platt, the same inventor as the '401 patent. This patent is for an unidirectional upper auger and oscillating lower agitator equipped with flex vanes, powered by a one-way clutch. The invention provides improved movement of clothes in a clothes washing machine in a toroidal rollover motion, thereby resulting in reduced tangling and improved washability in heavy loads. The "Abstract of the Disclosure" of the invention indicates

that the major differentiating characteristics taught by the '734 patent are the requirements that the vanes on the lower agitator be flexible but need not be co-axially aligned to the lower agitator, and that the drive continuously and/or intermittently rotates in one direction.

3. Validity of the '734 patent

General Principles

Going back to the criteria for validity summarized by Joyal, J., in *Cochlear Corp.*²⁶ the invention must have the qualities of 1) novelty; 2) utility; 3) fitting into a recognizable category; and 4) inventiveness. Added to this list is, of course, the statutory presumption of validity.

There is no issue as to the utility of the invention here, to which its commercial success readily attests. Nor is there any issue as to the invention fitting into a recognizable category.

An issued, subsisting Canadian patent is, absent evidence to the contrary, presumed to be valid during its full term of 17 years from the date of issue.²⁷ The '734 patent is presumed to be valid, subject to the defendants proving otherwise. Once there is any evidence of invalidity, the statutory presumption of validity disappears.²⁸

The issues that remain to be resolved are, therefore, the novelty and inventiveness of the invention disclosed in the '734 patent, and whether there is sufficient evidence of invalidity to defeat the statutory presumption of invalidity.

The submissions

The defendants characterize the invention disclosed in the '734 patent as being the improvement of the substitution of flexible for rigid vanes in an agitator as that which is described and claimed in the '401 and '803 patents. The '401 and '803 patents are said to be

²⁶ *Supra*, note 1.

²⁷ *Patent Act*, R.S.C. 1985, c. P-4, s. 45.

²⁸ *M & I Door Systems Ltd. v. Indoco Industrial Door Co. Ltd.* (1989), 25 C.P.R. (3d) 477 (Fed.T.D.) at 484; *Windsurfing Int'l Inc. v. Trilantic Corp.* (1985), 8 C.P.R. (3d) 241 (F.C.A.).

prior art in the disclosure. The defendants submit that the improvement is obvious, as well as an aggregation.

The defendants support their obviousness arguments by characterizing the facts thus. The '401 and '803 patents did not restrict their inventions to rigid vanes for the lower agitator. Their inventions were for the use of an auger with a conventional lower agitator, with unique drive mechanisms connecting the two. The patents were drafted to include both rigid and flexible vanes within their scope. The figures showed rigid vanes because that was the only agitator that was being produced by the plaintiffs at the time. But it was common knowledge that conventional lower agitators were also made with flexible vanes. Since the '401 and '803 patents did not distinguish their inventions from using anything other than conventional agitators for the lower portion, any skilled worker reading those two patents would know that flex vanes would work because of the advantages that this worker knew about using flexible vanes in conventional agitators. Therefore, there is no invention to specifying flexible vanes, when it is deducible from the '401 and '803 patents that they covered flexible vanes.

The plaintiffs, on the other hand, characterize the addition of flex vanes onto a dual action agitator to thereby create an entirely new type of agitator, such as that disclosed in the '734 patent, as a stroke of inventiveness, if not genius.

Analysis

(a) The law: novelty

A lack of novelty going to the root of the invention invalidates a patent, and is a complete defence in a suit for infringement.²⁹ Novelty is a question of fact,³⁰ and is presumed.³¹ Novelty is tested as of either the date of invention or two years before the filing date.³²

The evidence

²⁹ *Tye-Sil Corp. Ltd. v. Diversified Products Corp.* (1991), 35 C.P.R. (3d) 350 at 361 (F.C.A.).

³⁰ *French's Complex Ore Reduction Co. v. Electrolytic Zinc Process Co.*, [1930] S.C.R. 462 at 466.

³¹ *Mahurkar v. Vas-Cath of Canada Ltd.* (1988), 18 C.P.R. (3d) 417 at 431-32 (F.C.T.D.); aff'd (1990), 32 C.P.R. (3d) 409 (F.C.A.).

³² Paragraphs 27(1)(a) and 61(1)(a) of the *Patent Act*.

The evidence of Mr. Pielemeier, who was present at Whirlpool at the time of the invention, is that dual action agitation was such a new form of a washing system, that it comprised a completely different category from that which would be contemplated under unitary action agitation washing systems. Therefore, the ingenuity that was going into making effective unitary action washing systems was not that which was being taken into account in the development of dual action agitation systems, as the nature of the dynamic environment created by dual action agitation was so entirely different. In fact, it took six months to develop the flex vane dual action agitator from the rigid vane dual action agitator. The addition of flex vanes into this completely new washing system was a novel addition to make.

The evidence of Mr. Mellinger is that, since Maytag's unitary action agitators with flex vanes were already on the market with commercial success, their use on the lower oscillating portion of a dual action agitator could not be considered a novel use. However, Mr. Mellinger has no direct experience with dual action agitation, nor the unique washing environment created by dual action agitation.

The submissions

All parties agree that dual action agitation was a tremendous advance over unitary action agitation. The plaintiffs submit that the addition of flex vanes onto a dual action agitator created something that was novel. The defendants submit that this creation was obvious and already implicit in the preceding '401 and '803 patents.

Novelty: analysis and conclusion

The defendants bear the onus of establishing evidence to disprove novelty. The strength of the defendants' evidence lies in Mr. Mellinger's expert opinion. However, Mr. Mellinger's expert opinion is based in knowledge of the engineering of unitary action agitators, and has no basis in knowledge about dual action agitation. I compare this with the contrary evidence of Mr. Pielemeier, who was involved in the actual development of dual action agitation. Weighing the evidence of the two experts against each other, I am inclined to conclude that the defendants have failed to bring forward evidence that would, on a balance of probabilities, tend to disprove the novelty of the addition of flex vanes to the dual action environment. Although some

questions remain in my mind as to the plaintiffs' evidence, the presumption of the novelty of the '734 patent prevails in absence of evidence to the contrary.

(b) Inventiveness: the law

For a patent to be inventive, the advance must be neither obvious nor merely a workshop improvement. Obviousness is found when the inventive step would occur directly to an ordinary person skilled in the pertinent art or science searching for something novel without serious thought, research or experiment.³³ The "ordinary person skilled in the art" is defined as the technician skilled in the art but having no scintilla of inventiveness or imagination, a paragon of deduction and dexterity, wholly devoid of intuition.³⁴

The test for obviousness is characterized by Hugessen J.A. in *Beloit Canada Ltd. v. Valmet City Oy*³⁵ as follows:

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 question to be asked is whether this mythical creature (the man in the Clapham omnibus of patent law [i.e., the ordinary person skilled in the art]) 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.

[my emphasis]

The onus lies on the defendants to establish that the invention was obvious.³⁶

Nor, to be inventive, may the advance disclosed in the patent be a mere aggregation of previously known parts. The law on aggregation is that as set out by Strayer, J. in *Crila Plastic Industries Ltd. v. Ninety-Eight Plastic Trim Ltd.* (1986), 10 C.P.R. (3d) 226 (Fed. T.D.) [hereinafter, *Crila Plastic*] and later affirmed in the Federal Court of Appeal.³⁷ At page 236,

³³ *Farbwerke Hoechst A.G. v. Halocarbon (Ontario) Ltd.* (1979), 104 D.L.R.(3d) 51 at 62-63 (S.C.C.) [hereinafter, *Farbwerke Hoechst*].

³⁴ *Beloit Canada Ltd. v. Valmet Oy* (1986), 8 C.P.R. (3d) 289 at 294 (F.C.A.).

³⁵ *Ibid.* at 294.

³⁶ *Supra* note 29 at 365.

³⁷ (1987), 18 C.P.R. (3d) 1 at 10.

Strayer, J. quotes Collier, J. from the decision in *Domtar Ltd. v. MacMillan Bloedel Packing Ltd.* (19770, 33 C.P.R. (2d) 182 (Fed. T.D.))³⁸ at page 189-191 thus:

Mere juxtaposition of parts is insufficient for patentability. The elements must combine for a unitary result. If any element in the arrangement gives its own result, without any result flowing from the combination, then there is no invention.

... In my opinion the elements I have above outlined perform essentially independent functions. They do not collate to produce a new but common result. If any one of them were removed, the others, to my mind, would continue to perform their own individual function. There is here an aggregation, not a combination.

The issues

There are four issues regarding inventiveness. The first question to be asked is whether, by putting together all of the elements of the '734 patent, the patentee has produced a "combination" which is inventive -- or is it a mere aggregation of well-known elements. If the answer to this question is that the combination is not a mere aggregation, then a second question must be asked. This question is whether the addition of flex vanes was somehow obvious. The related and third question is what exactly is the prior art of the invention. The final question regarding inventiveness is whether there has been any double patenting in the '734 patent.

(i) Aggregation: the evidence

The evidence shows that removal of the upper auger from the plaintiffs' agitator will not affect the oscillation of the lower agitator.

³⁸

Aff'd (1978), 41 C.P.R. (2d) 182 (F.C.A.).

Analysis

Claim 7 of the '734 patent speaks to the two-part toroidal rollover pattern produced by the invention. Counsel to the defendants submits that if the upper auger portion of the '734 dual action agitator is removed, each remaining part will still function in substantially the same way that it did prior to the removal. I am satisfied, from the evidence before me, that this submission is correct. Upon removal of the upper auger, the lower portion of the agitator will still oscillate; the vanes on the lower portion will still yieldingly flex with the wash load. However, the dynamic environment created by the combination of the upper auger with the lower oscillator with flex vanes -- that is, the effect of this combination -- would not be the same. The evidence shows that, absent the upper auger, there is no two-part toroidal rollover as specified in claim 7. The lower flex vanes perform a different function in relation to the washing process, depending on the presence or absence of the upper auger. When combined with the action of the upper auger, the lower flex vanes perform the new function of alleviating a qualitatively different kind of tangling. This function of the flex vanes is neither present nor needed in a unitary action agitator.

If the upper auger is removed, each remaining element of the agitator performs its individual function. However, the addition of the upper auger or flex vanes to the agitator creates a new, common result. I am satisfied that the elements combine for a unitary result, and thus the test for combination, as set out by Strayer, J. in *Crila Plastics*,³⁹ is satisfied in favour of the plaintiffs. The advance as disclosed in the '734 patent is not a mere aggregation of previously known parts.

The defendants bear the burden of bringing forth evidence to disprove inventiveness. In terms of the argument of aggregation, it defendants have not established evidence that disproves inventiveness.

It is now necessary to turn to the question of obviousness.

(ii) Obviousness: the evidence

³⁹

Supra note 37.

Mr. Werner's evidence is that the flexible vanes on the lower portion of the '734 agitator are similar in construction and in principle to those used by Maytag on its unitary action agitator prior to the invention date of the '734 patent. The structures are, essentially, the same: there are enlarged beads along the edges of the vanes, there is a gap between the vane and the skirt of the lower agitator, and there are interstitial ribs.

The expert opinion of Mr. Pielemeier is that at the time of the invention of the '734 patent, it would not have occurred to someone of ordinary skill in the art to create a dual action agitator, let alone to place flex vanes on the lower base of such an agitator. Mr. Pielemeier also opined that even if a person ordinarily skilled in the art were presented with the '401 or '803 patents, and all the other patents referred to by Mr. Mellinger, it would not have occurred to them to utilize flex vanes in a dual action agitator. The numerous and significant contra-indicated factors concerning the use of flex vanes would, in fact, have directed against such a consideration. These contra-indications included the possibility of chipping and breakage of the flex vanes, and tangling underneath the flex vanes.

The contra-indications associated with flex vanes were well known to the plaintiffs. In the 1960's, the plaintiffs had produced a unitary action agitator with flex vanes, that soon came to be known as the "Golden Gobbler." The plaintiffs' negative experience with the performance of the so-called Golden Gobbler, it came out in evidence, was a result of a problem with the design of the flex vanes. Unlike the Maytag flex vane agitator, the Golden Gobbler's flex vanes had no bead running around the edge, and thus were prone to nicking or gouging and hence clothes damage. Further, and again unlike the Maytag agitator, the Golden Gobbler did not have a skirt at the bottom of the agitator, with the result being that clothes would get tangled or jammed underneath.

Mr. Pielemeier's evidence on the contra-indications of flex vanes stands in stark contrast to the evidence presented by Mr. Mellinger on cross-examination. I found Mr. Mellinger's testimony to be enlightening and trustworthy. In cross-examining Mr. Mellinger, counsel to the plaintiffs tried to establish that there were significant problems associated with flex vanes, so that it would be reasonable to conclude that it would be counter-intuitive to place flex vanes on a dual-action agitator. Mr. Mellinger offered the following opinion in cross-examination:

Flex vanes, in my opinion, as evidenced by Maytag's experience, the fact we went away from rigid vanes thirty years ago, in every respect I really know of no

problem that would ever cause Maytag to consider that we weakened anything in making that decision. It's been nothing but a satisfactory device over the years.

Mr. Mellinger testified that he was able to get a 50 percent increase in load washed by using flexible vanes rather than rigid vanes.⁴⁰ Mr. Mellinger consistently maintained that there was no problem with flex vanes on Maytag's unitary action agitator, millions of which had been sold prior to the plaintiffs' invention of the dual action agitator. In fact, Maytag produces this agitator to this day. He did admit, however, that very occasionally there could be the problem in unloading the agitator basket where a strap has slipped under the flex vanes or around the agitator.

I bear in mind the caution of the Federal Court of Appeal in the review of expert testimony with respect to the question of obviousness.⁴¹

The testimony of Mr. Werner, on cross-examination, was inconclusive on whether the notional skilled worker would have considered using flexible vanes in place of rigid vanes. Mr. Werner could not give an opinion as to whether or not, given the knowledge of the Maytag flexible vane agitator at the material time, the notional skilled worker would have considered using it on a dual action agitator. Specifically, Mr. Werner stated, "... it may or may not have [crossed the notional skilled worker's mind to consider using Maytag's flex vane agitator]. My answer was if it had, I think they would have rejected it, but they might not necessarily have." However, it is to be remembered that, when compared to the other witnesses, Mr. Werner's credibility is in doubt before this Court.

Counsel for the plaintiffs makes much of the fact that the witness for the defendants, Mr. Mellinger, was not aware of, nor could he define, the problems associated with "3-D tangling" with respect to the '734 patent. This point is explained by the fact of Mr. Mellinger's lack of experience with dual action agitation. However, I would note that nowhere in the '734 patent is there any specific reference to "3-D" tangling. What there is, instead, are references to tangling

⁴⁰ This figure represents increasing a wash load size from six pound to nine pounds.

⁴¹ In *Beloit*, *supra* note 32 at 295, the Federal Court of Appeal cautioned thus:

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?"

due to the unidirectional movement of the upper auger relative to the lower agitator element. I would also note that, even after counsel's description of 3-D tangling and manual demonstration of what 3-D tangling is supposed to be, I remain unclear as to what this concept really means. I am, however, prepared to accept that the tangling produced by dual action agitation is qualitatively different from that produced by unitary action agitation. This point is relevant to the discussion as it relates to the use of flex vanes to alleviate the special tangling problem produced by dual action agitation.

The submissions

The plaintiffs submit that the use of flex vanes on a dual action agitator was completely counter-intuitive, not derivable from what was known about flex vanes in unitary action agitators, and indeed a stroke of inventiveness if not genius. Therefore, nothing in the art known at the time taught that flex vanes would solve the unique tangling problems brought on with rigid vanes in dual action agitation.

The defendants submit that the issue regarding this patent is a question of fact: is the substitution of flex vanes for rigid vanes in a dual action agitator obvious? That is, was it obvious to use flexible vanes in a dual action agitator once there was the idea of a dual action agitator? If the answer to either question is yes, then the '734 patent is not inventive, and, therefore, it is invalid.

Analysis

The date at which the issue of obviousness is determined is the date of the invention. The state of the art at the claimed date of invention was no public disclosure of a dual-action agitator of any kind. Common general knowledge was that flex vanes had been used quite successfully on a unitary action agitator by Maytag, but unsuccessfully by the plaintiffs.

Is the use of flex vanes with a lower skirt to solve the tangling problems peculiar to a dual action agitator distinguishable enough from the use of flex vanes with a lower skirt to solve the problem of clothes wrapping around or getting trapped beneath the vanes of an unitary action agitator, so as to be considered "inventive?" The problem is tangling. The use of flex vanes with a lower skirt solves the problem of tangling in both kinds of agitators. However, the

evidence is that the magnitude, and indeed the nature, of the problem in dual action agitators is greater and different than in single action agitators. In dual action agitation, the use of flex vanes provides the added bonus of improving the washability of large loads. Both of these features are highly desirable in a washing machine.

Counsel to the plaintiffs tried to establish that there was a problem with breakage with flex vanes, to the end of supporting his argument of counter-intuitiveness. However, the uncontroverted evidence of Mr. Mellinger is that there was no such breakage problem at all with Maytag's unitary action agitator with flex vanes over the many years that it has been commercially available. Although GE's Golden Gobbler had a whole litany of contra-indications to flex vanes, there is no evidence whatsoever that there were any such problems with the flex vanes that Maytag had on the market for many years.

I must concede that, at first, I was convinced, on the basis of Maytag's positive experience with flex vanes, that it would have been obvious to appropriate Maytag's flex vanes for use on a dual action agitator. To support such a conclusion would require placing unitary action agitation and dual action agitation in the same category of wash system. It would also require dismissing Mr. Pielemeier's evidence in its entirety, as well as engaging in some judicial hindsight analysis. On the basis of the totality of the evidence before me, I am not prepared to do any of these things.

Now that I have decided that the '734 patent is not an aggregation and represents a combination of known elements to produce an entirely new result, I can no longer consider Mr. Mellinger's evidence to be relevant to this portion of the discussion regarding the use of flex vanes on a dual action agitator. This is because of Mr. Mellinger's inexperience with this entirely new result, as well as the import of this entirely new result. Although Mr. Mellinger's theories and opinions are interesting and, at times, compelling, it would have been better to have heard from somebody familiar with dual action agitation.

The inventive step of adding flex vanes to the dual action agitator did not immediately occur to anybody at Whirlpool. The fact that it took six months to develop the idea is evidence of serious thought, research, or experimentation. It is not evidence of obviousness. The test of whether the notional skilled worker would have come, in light of what was known about dual action agitation at the time, and given common general knowledge, directly and without difficulty

to the solution taught by the '734 patent simply is not satisfied on the basis of the defendants' evidence. I am satisfied that dual action agitation and unitary action agitation are such different creatures that the notional skilled technician would not have readily interchanged the art taught by one for that of the other. Only a hindsight analysis would lead me to believe otherwise.

The defendants bear the burden of tendering evidence that would tend, on a balance of probabilities, to prove obviousness. They have not done so. I thus conclude that the use of flex vanes on the dual action agitator was not obvious.

(iii) Obviousness and Improvements: the law

Section 32 of the old *Patent Act* deals with improvements and improvement patents.⁴² It states that any person who has invented any improvement on any patented invention may obtain a patent for such an improvement.

An improvement to a patented invention is distinct from the original invention, and is, in itself patentable.⁴³ To be patentable, the improvement requires novelty, utility, and invention.⁴⁴ Older authorities suggest that improvement patents should be construed more strictly and therefore enforced less strictly than "pioneer" or "master" patents,⁴⁵ but the modern trend seems to be away from this strict distinction, at least with respect to applying the rule of infringement by mechanical equivalents.⁴⁶

Analysis

⁴² Section 32 read as follows:

Any person who has invented any improvement on any patented invention may obtain a patent for such improvement, but he does not thereby obtain the right of making, vending or using the original invention, nor does the patent for the original invention confer the right of making, vending or using the patented improvement.

Under section 2, a "new and useful improvement in any art, process, machine, manufacture or composition of matter" is included in the definition of an "invention."

⁴³ Section 32; *Wandscheer v. Sicard Ltd.*, [1948] S.C.R. 1 at 27.

⁴⁴ *Kaufman v. Belding-Corticelli Ltd.*, [1940] S.C.R. 388 at 390.

⁴⁵ *Dominion Bedstead Co. v. Gertler*, [1924] Ex.C.R. 158 at 159 and 161.

⁴⁶ *Lovell Manufacturing Co. v. Beatty Bros. Ltd.*, (1962) 23 Fox Pat. C. 112 at 161 (Ex. Ct.).

The defendants argue that the addition of flex vanes was merely an improvement on the dual action agitator. This argument requires the isolation of the flex vanes from the other elements of the patent, and an examination of whether this improvement is obvious.

However, the defendants' argument is valid only as far as it can be shown that the '734 patent is some sort of an aggregation. I have already concluded that the '734 patent is not merely an aggregation of previously known parts. Therefore, it is impossible to so isolate the flex vanes from the rest of the invention, without engaging in some sort of an artificial exercise. The invention is not merely the substitution of flex for rigid vanes. There is thus no need to analyze whether this substitution was obvious, because such an analysis would entirely miss the point of the invention.

The defendants submit that claims 1 to 11 inclusive are invalid because they claim more than just the improvement of flex vanes on a dual action agitator -- they claim the entire structure of the thing improved (i.e., the entire dual action agitator). Because I have determined that the invention is not merely the improvement of flex vanes, but the entire, new dual action agitator with flex vanes, this argument necessarily fails.

(iv) Prior art: the law

I accept the proposition of Mr. Justice Rich of the U.S. Federal Court of Appeals that "a statement in a patent that something is in the prior art is binding on the applicant and patentee for determination of anticipation and obviousness."⁴⁷

However, the general rule is that co-pending patent applications may not be cited as prior art against each other. Under section 10 of the old Act, patent applications were opened for public inspection only when a patent was granted.⁴⁸ Prior art that was not of a public nature at the date of invention cannot be considered in respect of the issue of obviousness.⁴⁹

⁴⁷ *Constant v. Advanced Micro-Devices, Inc.* 848 F.2d 1560 (Fed. Cir. 1988) at 1570.

⁴⁸ Section 10 reads:

All specifications, drawings, models, disclaimers, judgements, returns and other papers, except caveats, and except those filed in connection with applications for patents that are still pending or have been abandoned, shall be open to the inspection of the public at the Patent Office under such regulations as are adopted in that behalf.

⁴⁹ *Procter & Gamble Co. v. Kimberly-Clark of Canada Ltd.* (1991), 40 C.P.R. (3d) 1 at 46-47. COURT?

The evidence

The '734 patent lists as prior art the same inventions as are listed as prior art in the '401 and '803 patents. In addition, the '734 patent lists as prior art a number of varying agitators with flexible lower vanes. Some of these agitators are described as having lower skirts. Maytag's Smith patent for a unitary action agitator with flex vanes is listed as prior art.⁵⁰ The "Cobb patent" for an agitator with flexible vanes used in combination with an agitator skirt in order to reduce tangling of fabrics on the agitator vanes is listed as prior art as well.⁵¹ The "Bochan patent" is also included in the list of prior art.⁵² The prior art is generally described as providing agitators having only oscillatory motions, attempting to achieve good rollover of clothing in the washing tub by increasing the vigour of the agitators.

At page four of the '734 patent, in the section entitled, "Description of the Prior Art," is found a description of the '401 patent. On page five of the same section, is also found a description of U.S. Patent 3, 987,652, which Mr. Werner acknowledged refers to the invention disclosed in the '803 patent.

As indicated on the face of the patents, the '401 patent was issued on January 2, 1979; the '803 patent was issued on March 6, 1979; and the '734 patent was issued on February 17, 1981. The invention dates for the preceding patents are at least as early as July 12, 1972 for the '401 patent; and at least as early as March 22, 1973 for the '803 patent.

The evidence of Mr. Mellinger -- and indeed all of the witnesses -- is that, according to the claims of the '401 patent, since it did not define the vanes as being either rigid or flexible, it could now be built with either rigid or flexible vanes. However, Mr. Mellinger also concedes that, as far as disclosure is concerned, the '401 and '803 patents only referred to agitators with rigid vanes. Specifically, Mr. Mellinger stated,

... as far as disclosure was concerned, all they showed and all they talked about was rigid vanes. They didn't describe -- didn't say it couldn't be flexible but the only thing they pictured was rigid vanes. And that was all that was basically -- they just referred to them as vanes at the time.

⁵⁰ Smith U.S. patent no. 3,381,504.

⁵¹ Cobb U.S. patent no. 3,307,383.

⁵² Bochan U.S. patent no. 3,285,040.

Through the cross-examination of Mr. Mellinger, it was established that the particular embodiment of the '734 patent as depicted on exhibit "P20" could not be built by following the structural dictates of the claims of the '401 and the '803 patents. This is because the embodiment of the '734 patent depicted on exhibit "P20" has vanes that are not vertically oriented. They are slanted. The '401 and '803 patents require vertically oriented vanes. This is a real difference between the '734 and the preceding patents.

It was established in the cross-examination of Mr. Mellinger that the language of the '803 patent does not require that the upper portion of the agitator be coaxial with the lower oscillating portion. There is simply a requirement that it be mounted on the lower portion, the result being that a particular embodiment of the '803 patent could have the upper auger in a sloped position, as depicted in exhibit "P20." The '734 patent, on the other hand, has the requirement that the upper agitator element be mounted coaxially above the lower agitator element. This is a second real difference.

It was also established, through the evidence of Mr. Werner, that the continuous movement disclosed in claims 6, 8, and 14 of the '734 patent is not something that is found in either of the '401 or '803 patents. This is a third real difference.

The evidence of Mr. Mellinger is that the '401 and the '803 patents are distinctive from the '734 patent so long as the former two patents do not have flexible vanes.

The submissions

The plaintiffs submit that because the first public disclosure of any kind of dual action agitator occurred approximately one year after the invention of the '734 patent, the '401 and '803 patents are not and cannot ever be considered prior art under Canadian law. The plaintiffs stress that the actual inventions of dual action agitators were confidential. The test is thus whether it would have been obvious to develop '734 from scratch without ever having seen a dual action agitator.

Counsel to the plaintiffs submits that, in considering the issue of obviousness, Mr. Platt's own knowledge, which was knowledge which had not yet been publicly disclosed, and which was within the realm of secret knowledge, cannot be considered. The only knowledge which is relevant is the knowledge of the notional skilled worker and the knowledge that was accessible to her or him at the time of the '734 invention.

The plaintiffs submit that the discussion of the '401 and '803 inventions under a section of the '734 patent entitled "Description of the Prior Art" does not transform something that is not prior art (i.e., the '401 and '803 inventions) into a citable prior art reference. The plaintiffs submit that what may be considered prior art that may be cited against a Canadian patent or patent application is statutorily governed by the *Patent Act* and the judicial interpretation of the Act.

The defendants respond that although the dual action agitator was not in the public domain when the '734 agitator was disclosed to the public, agitators with flexible vanes were already very well known. Since the '734 patent only added flex vanes to the existing dual action agitator patents, it patented something that had already been patented. The defendants submit that it is in the context of the '401 and '803 patents, listed as prior art, that the improvement of the '734 patent must be placed.

Analysis: prior art

If the '401 and '803 patents are not prior art, then the '734 patent is a non-obvious significant advance in the art, and is thus patentable. Are the '401 and '803 patents prior art to the '734 patent? All of the witnesses agree that, if one were to ignore the '401 and '803 patents, then the '734 patent is inventive and non-obvious.

I believe that one must be careful in applying the plaintiff's test of whether it would have been obvious to develop '734 from scratch without ever having seen a dual action agitator, for improper application of that test may have the result of extending a valid patent beyond the legal period of monopoly.

I believe that, although there are a number of differences between the '734 patent and the preceding two patents, the answer rests in whether or not the agitator described in the '401

or '803 patents was meant to include flex vanes on its lower oscillator or not. The requirements of the vertical orientation of the vanes, the co-axial alignment of upper and lower portions of the agitator, and the continuous drive, although significant to the invention, are not the "essence" of the invention. The essence of the invention is the unique wash system produced by the combination of flex vanes with dual action agitation. If a dual action agitator with flex vanes cannot be contemplated by the '401 or '803 patents, then, according to the evidence of the defendants' own witness, all three patents are distinct, and the defendants' argument about conterminousness fails.

In "Part A," I determined that flex vanes were not to be included within the scope of the '803 patent. This, in itself, should be determinative of the issue. However, there is another significant point that also helps to determine the issue.

Section 10 of the old *Patent Act* stipulates that the contents of a patent come into the public domain only after the patent has issued. Due to the issuance dates of the three patents, the knowledge contained in the '401 and '803 patents was in the public domain for just over two years before the '734 patent was issued. However, this knowledge was not in the public domain at the time of the actual invention disclosed in the '734 patent, which is at least as early as June 5, 1974. The general rule is that co-pending patent applications may not be cited as prior art against each other. The applications were co-pending. Therefore, it is the date of invention that counts when examining prior art. I conclude, therefore, that despite the able submission from counsel to the defendants, that the '401 and '803 patents are not prior art.

Although the '401 and the '803 patents are cited as prior art within the '734 patent, they are not truly prior art, because the '401 and '803 patents were co-pending at the time of invention. It bears repeating that co-pending applications are not to be cited as prior art against each other.

The defendants have failed to establish any evidence that would tend to prove, on a balance of probabilities, that the '401 and '803 patents can be considered prior art to the '734 patent in Canada.

(v) Double patenting

Closely related to the defendants' argument on inventiveness is a different attack on the validity of the '734 patent: double-patenting. As I have found that the '734 patent is for an entirely different invention than those inventions disclosed in the '401 and '803 patents, there is no need to embark on a double-patenting analysis. However, due to the emphasis placed on this argument by counsel to the defendants, I will address, albeit in *obiter*, some of the main points of a double patenting analysis.

The law

The term "double patenting" means that there has been a prior grant of a patent to the invention. The basic objection to double patenting is that it would amount to an extension of the life of a monopoly if the patent were granted for a device, and subsequently the same or identical device gets another patent.

The defendants submit that the law on double patenting was developed by the Supreme Court of Canada in *Farbwerke Hoechst*.⁵³ In *Farbwerke Hoechst*, Judson, J. found that the diluted and undiluted medicines for which the patentees had obtained patents were but two aspects of exactly the same invention. The defendants submit that this case stands for the proposition that if a subsequent patent claims an invention that is the same as the invention claimed in a prior patent, or it claims an invention that would have been obvious in view of the invention claimed in the prior patent, that second patent or application cannot validly stand or cannot issue, as the case may be. In effect, there cannot be a continuation of one patent on something which is not inventive.

Counsel to the plaintiffs submits that *Farbwerke Hoechst* stands for the principle that a patent cannot be invalidated for double-patenting unless the prior claim and the subsequent claim are found to be identical and precisely conterminous. However, this is not the fact situation nor the ratio of *Farbwerke Hoechst*. In *Farbwerke Hoechst*, the first patent contained a claim for the drug, while the second patent application contained a claim for the drug with a carrier. The two claims were not precisely conterminous, let alone identical. In

⁵³

Supra note 33 at 11.

Farbwerke Hoechst, Judson, J. discusses two patents disclosing different aspects of exactly the same invention. This would be equally applicable to two patents disclosing different embodiments of exactly the same invention. Counsel's characterization of the *Farbwerke Hoechst* principle empties it of its subtlety.

The *Farbwerke Hoechst* principle is confirmed and somewhat elaborated in *Xerox of Canada Ltd. v. IBM Canada Ltd.* (1977), 33 C.P.R. (2d) 254 at 57-58 (F.C.T.D.). There, Collier J. holds that, in order for a patent to be invalidated for double patenting, the subject matter of the two grants must be identical. He then adds that a subsequent claim cannot be invalidated on the ground of prior claiming unless the two claims are precisely coterminous. In the context of Collier J.'s former statement, it is necessary to concentrate on the subject matter of the patents, and analyze whether the claims of the second patent can fall precisely within the boundaries established by the claims of the first patent. The test is not whether the claims of the two patents are identical, as counsel to the plaintiffs asserts, but rather whether the subject matter of the two grants is identical. There is a subtle difference.

The plaintiffs cite the case of *Lovell Manufacturing Co. v. Beatty Bros. Ltd.*, [hereinafter, *Lovell Manufacturing*] at 68 to support their contention that the law of double patenting does not apply in Canada. However, there is a significant difference between *Lovell Manufacturing* and the case at Bar. In *Lovell Manufacturing*, the three patents at issue were issued on the same day. In the present case, the patents were not issued on the same day. In *Lovell Manufacturing*, the basic objection to double patenting, which is the artificial extension of the life of the monopoly and which is at issue in the case at Bar, was not even addressed.

I believe that an adequate statement of the law of double patenting in Canada is that which is provided by W. L. Hayhurst in an article entitled, "Industrial Property: Part I" (1983), 15 Ottawa L. Rev. 38 at page 93, as follows:

As mentioned in the last Survey, Collier J. in two decisions in the Federal Court has said that a later issued patent will not be struck down for double patenting (sometimes called prior grant) if its claims are not "precisely coterminous" with the claims of an earlier patent. Gibson J. has reiterated this in *Procter & Gamble Co. v. Clagon Interamerican Co.*, but a few days later one of the cases tried by Collier J., *Consolboard Inc. v. MacMillan Bloedel Ltd.*, was decided by the Supreme Court of Canada on a different basis. The Supreme Court agreed with Collier J. that there was no double patenting in that case, but it did not refer to the "precisely coterminous" test. Rather it referred to *Commissioner of Patents v. Farbwerke Hoechst A.G.* as "the main authority on double patenting." ... The claims were clearly not coterminous, but the application for the second patent was refused. In the *Consolboard* case the Supreme Court, referring to the *Hoechst* decision, observed: "Judson J. for the

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

The question seems to be whether what is claimed in the second patent would have been unobvious over what is claimed in the first, a test that has theoretical appeal though it may not be easy to apply.

[my emphasis]

Since the Supreme Court of Canada has pronounced on double patenting, there is no need to refer to the state of the law in the United Kingdom or the United States regarding double patenting in this analysis.

The submissions

Because of the silence of the '401 and '803 patents on the flexibility or non-flexibility of the vanes on the lower portion of the agitator, the defendants assert that the dual action agitator with flex vanes and the dual action agitator with rigid vanes are but two aspects of exactly the same invention. The '734 patent effectively patents that which previously had been envisaged under the '401 and '803 patents.

The plaintiffs use a cute analogy to illustrate the concept of double-patenting and how it does not apply to this case. Counsel to the plaintiffs relates that, if he were to invent, for example, rocket fuel and obtain a patent for rocket fuel, and then subsequently find that adding bran muffins to the rocket fuel made it work dramatically better, and then obtain a patent for rocket fuel plus bran muffins, his second patent would not be invalid due to double-patenting *vis-a-vis* the first patent. This is because the first patent never taught or suggested bran muffins as a combustion accelerator.

Analysis

Even if the preceding analyses had not been determinative of this case, and as a consequence, it had been necessary for me to look to the law of double patenting to help resolve the issues, I still would not have found in favour of the defendants. This is despite the fact that, by and large, I agree with the defendants' statement of the law. The subject matter of each of the three patents, and especially the '734 patent, is unique. Not only are the claims not literally coterminous, they also are not substantively coterminous. There is, therefore, no double patenting.

Miscellaneous points

A Court can look to the commercial success of an invention as some indication as to the obviousness of the invention.⁵⁴ The commercial success of the plaintiffs' agitator is beyond dispute, with sales in the millions over the years. Since introduction of their dual action agitator in 1995, the defendant General Electric has sold in excess of 750,000 such agitators.

However, there is no evidence to show that the success of either the plaintiffs' or the defendants' dual action agitator is solely due to the flex vanes.

The plaintiffs support their non-obviousness argument by reference to section 28.3 of the *Patent Act*, S.C. 1993, c. 15. Needless to say, and counsel to the plaintiffs readily admits, this provision, which was proclaimed in force on October 1, 1996, does not apply to the patents-in-suit.

Conclusion: validity

The defendants' evidence does not show, on a balance of probabilities, that the invention disclosed in the '734 patent lack novelty or inventiveness in any way. There is, therefore, no evidence that would tend to dissolve the presumption of validity. The '734 patent is, therefore, a valid patent.

4. Infringement

As the same general principles apply here as in the analysis of the '803 patent, once again, I will not repeat them here, and I will go directly into the analysis of the '734 patent.

The plaintiffs bear the burden of establishing infringement on a balance of probabilities.⁵⁵

⁵⁴ *Almecon Industries Ltd. v. Nutron Manufacturing Ltd.* at 437 (Fed. T.D.); affirmed *Nutron Manufacturing Ltd. v. Almecon Industries* (F.C.A.) A-232-96, dated February 6, 1997, at 5.

⁵⁵ *Lubrizol Corp. v. Imperial Oil Ltd.*, *supra* note 9 at 31.

The plaintiffs submit that the defendants' agitator is a virtual copy of the Whirlpool agitator, and that the defendants' agitator contains each and every element of claims 1 through 14 of the '734 patent.

The defendants admit that each of the claims 1 through 5, 7, and 9 through 13 aptly describe their agitator. The defendants submit that claims 6, 8, and 14, which speak to the continuous movement of the upper auger, do not describe the defendants' agitator, because the movement of the defendants' upper auger is intermittent.

I have already concluded that the defendants' agitator falls within claims 6, 8, and 14 of the '734 patent, as the upper auger can be continuously rotated, albeit in intermittent pauses, in one direction.

It is established law that if a person takes the substance of an invention, that person is guilty of infringement, and it does not matter whether that person omits a feature that is not essential to the invention or substitutes an equivalent for it.⁵⁶ The defendants' agitator falls substantively within the claims of the '734 patent. The defendants are, therefore, guilty of infringement.

CONCLUSION

Due to the statutory presumption of validity, the onus on the defendants to prove invalidity of a patent is a heavy one. This is especially so in the case where a patent has been respected for most of its 17-year life in Canada, and for its entire life in the United States. However, once the defendants have shown at least some evidence of invalidity, this statutory presumption of validity disappears.

Have the defendants shown any evidence that would tend to disprove validity of either the '734 patent or the '803 patent, on a balance of probabilities? In my opinion, they have not. Although Mr. Mellinger's expert opinion is quite compelling, the defendants have presented no direct evidence about the use of flex vanes in dual action agitation around the time of the invention. In contrast, Mr. Pielemeier, for the plaintiffs, who was there and was involved

⁵⁶ *Mobil Oil Corp. v. Hercules Canada Inc.* (1995), 63 C.P.R. (3d) 473 at 488-489 (F.C.A.).

in the inventions disclosed by the patents, presented evidence that it was out of the question to consider flex vanes on a dual action agitator at the material time.

Dual action agitation was such a new thing -- and all parties agree that it was a tremendous advance over unitary action agitation -- that it is to be considered in an entirely different category from unitary action agitation. The defendants' case rests, in essence, on dual action agitation being in the same category of invention as unitary action agitation, when, clearly, it is not.

The plaintiffs had no experience in making effective flex-vaned agitators. They did not know Maytag's secret formula for the resin that would help to successfully make useable flex vanes. Dual action agitation was considered to be an entirely different creature than unitary action agitation. The '401 and '803 patents, therefore, do not include within their scope, flex vanes.

The defendants respected the patents for their duration in the United States. As soon as those patents expired, the defendants started production of their agitator, which is a virtual copy of the plaintiffs' agitator. This Court draws an adverse inference against the defendants on this point. The defendants introduced their agitator into Canada, even though the '734 patent had not yet expired. Apparently, they thought that it was worth the risk.

Mr. Mellinger admittedly had no experience with dual action agitators. Mr. Pielemeier had a lot, and was involved in product development at the time of their invention. Whose opinion evidence as to what the notional skilled technician would have thought about flex vanes on dual action agitators is to be preferred? Why, Mr. Pielemeier's is, as he has the knowledge that would better support an opinion about dual action agitation. Mr. Mellinger's opinion, though very interesting, clearly is not supported by knowledge about dual action agitation.

This Court draws an adverse inference against the defendants due to the fact that no witnesses were called from GE or Camco to support their own agitator. Although counsel to the defendants gave palatable explanations and demonstrations of what construction ought to be given to the patents and their validity, this simply is not as good as direct evidence from GE would have been on the same points.

In sum, although I have my reservations concerning some of the plaintiffs' submissions, the onus on the defendants to disprove validity of the patents has not been discharged. It has not been discharged because the defendants have not presented any evidence that would tend to disprove, on a balance of probabilities, invalidity. The statutory presumption of validity thus prevails. The '734 patent is a valid patent which the defendants have infringed.

Counsel to the defendants have crafted some interesting and compelling legal arguments in support of their case. However, without the necessary compelling evidence to support those legal arguments, the arguments fail.

The '803 patent

I have concluded that the '734 patent gave the public an entirely new washing system through the special combination of a dual action agitator with flex vanes. Flex vanes solved the significant tangling problems associated with dual action agitation. In effect, flex vanes made the thing work.

The plaintiffs allege that the defendants' agitator, as exemplified by the plaintiffs' production number 6, infringes not only the '734 patent (which I accept that it does), but also the '803 patent. However, the plaintiff's production number 6 is a dual action agitator with flex vanes. The '803 patent does not include, within its scope, flex vanes. If it did, then the '803 patent would have been for a washing system that would be all too similar to that disclosed in the '734 patent. The plaintiffs cannot say that the '734 patent is a novel device because of the stroke of inventive genius that signalled the use of flex vanes, and at the same time, credibly maintain that flex vanes fall within the scope of the dual action agitator disclosed in the '803 patent. The plaintiffs cannot have it both ways.

The defendants' agitator, as exemplified by plaintiffs' production number 6, does not fall under claim 1 of the '803 patent. Because it does not fall under claim one, it cannot fall under either claims 2 or 5, as they are dependent on claim 1. Therefore, there is no infringement of the '803 patent by the defendants.

The defendants' counterclaim

By way of counterclaim, the defendants advanced an allegation that the plaintiffs' actions in respect of their patent rights had resulted in damage to the defendants. The defendants maintained the position during discovery, right up until January of this year, that they were going to maintain their counterclaim. It was not until March, 1997, a month before trial, that the plaintiffs were advised that the counterclaim would be withdrawn.

The plaintiffs went through motions, discovery, and otherwise had to prepare to defend against this counterclaim, only to be informed, at virtually the last minute, that this work was for naught. The plaintiffs request that the defendants, at this late point in time, not be allowed to simply withdraw the counterclaim. Instead, the counterclaim should be dismissed, with costs. In the circumstances of this case, I agree with the plaintiffs that the counterclaim ought to be dismissed with costs to the plaintiffs.

OTTAWA, ONTARIO

August 18, 1997.

B. Cullen

J.F.C.C.