

Overbreadth.

13th Annual U of T Patent Colloquium

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Friday, November 1, 2024



Introduction

The Patent Act

- The Act requires that a patent specification must:
 - “correctly and fully describe the invention” (s.27(3)) and
 - “end with a claim or claims defining distinctly and in explicit terms the subject-matter of the invention” (s.27(4)).

Patent Law - The Patent Bargain

- A sufficient disclosure of new, useful, and non-obvious subject matter that advances the art is the *quid pro quo* for the monopoly defined by the claims. This is the patent bargain.
- “The patent monopoly should be purchased with the **hard coinage** of new, ingenious, useful and unobvious disclosures”. – *Apotex v. Wellcome*, [2002] 4 S.C.R. 153 at [37]
- A patent should be approached “**with a judicial anxiety to support a really useful invention**”. – *Consolboard v. MacMillan Bloedel*, [1981] 1 S.C.R. 504 at [520]-[521]



Failing to Satisfy the Bargain

- Justice Hughes in a PM(NOC) case from 2008 (Eli Lilly v. Apotex, 2008 FC 142) described failing to satisfy the patent bargain this way:
 - [74] Thus, one must both advance the state of the art and disclose that advance in order to gain the patent monopoly. Failing to do so, thus invalidating the monopoly, can be in the form of one or more of several matters such as, the “invention” was not new, or the so-called invention was “obvious” or the disclosure was “insufficient” or “what you disclosed doesn’t support the monopoly that you claim”.

Overbreadth is the “other side of the coin” from insufficiency.

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- **Overbreadth**

- The invention as claimed is too broad because it is missing an essential element of the invention.

- **Insufficiency**

- The description of the invention is insufficient because it does not teach a skilled person how to practice the invention as claimed, without the exercise of inventive ingenuity or undue experimentation.



Case Law

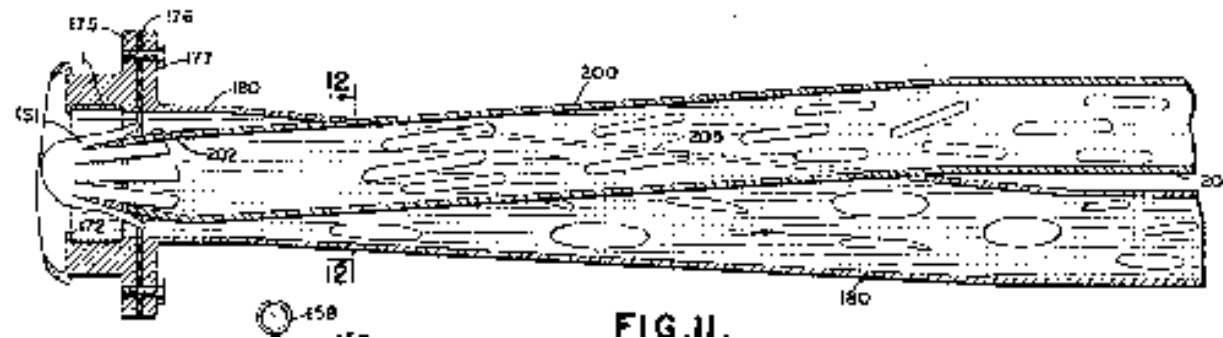
***Amfac Foods Inc. v. Irving Pulp & Paper, Ltd.*, (1986), 12 CPR (3d) 193 (FCA)**

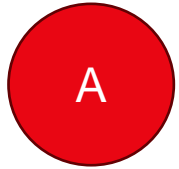
- A leading case on the doctrine of overbreadth.
- The patent related to a “water-knife” device for slicing potatoes for french-fries.
- The trial judge had found that the defendant infringed one of the claims, but that claim was invalid because it was broader than the invention disclosed because it was missing essential elements of the invention.
- The “water-knife” described in the patent had outside “slabber” blades for removing the outside “rounded” part of the potato in four slabs. The other knives of the device cut the center block of the potato into square strips. After cutting, the device separated the slabs from the square strips.
- The claimed invention of Claim 16 was the water knife with the center block of knives alone.
- The Trial Judge held that the claim was invalid for overbreadth. The Court of Appeal upheld the trial judge.

Amfac Foods Inc. v. Irving Pulp & Paper, Ltd., (1986), 12 CPR (3d) 193 (FCA)

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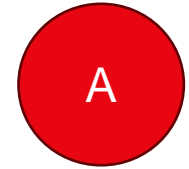
- The Court of Appeal held that the issue was one of construction of the water knife invention described in the specification.
- No reference to the prior art was required or proper.
- The description described a “primary objective” of the invention being to achieve “a uniform and even slicing of vegetable products, particularly the potato” and “another object” of the invention being to “permit removal of the four exterior sizable slabs from the potato”.
- The Court of Appeal upheld the trial judge’s finding that the slabbing blade and separation means were essential to the invention.





***Amfac Foods Inc. v. Irving Pulp & Paper, Ltd.*, (1986), 12 CPR (3d) 193 (FCA)**

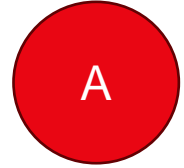
- The Court of Appeal reviewed various precedents that explain the doctrine of overbreadth.
- In the case of *Mullard Radio v. Philco Radio*, (1936) 53 R.P.C. 323 the patent was for a radio valve or tube and the juxtaposition of certain grids within it to achieve a desirable result. The House of Lords said a claim to an article “at large” could be too broad if the “inventive idea” was the “discovery that in that particular juxtaposition [the article] will give new and useful results”.
- In the case of *BVD v. Canadian Celanese*, [1936] S.C.R. 221 the patent related to the use of cellulose in yarns, filaments or fibres for materials used in the manufacture of collars. The Supreme Court said that where the claims do not include “the essential characteristic” of the “actual invention” they are too broad. If the claim language is “unequivocal and complete” the Court cannot “limit the claims by simply saying that the inventor must have meant that which he had described”.



***Amfac Foods Inc. v. Irving Pulp & Paper, Ltd.*, (1986), 12 CPR (3d) 193 (FCA)**

- In the case of *RCA v. Raytheon*, (1957) 27 CPR 1 (Ex.Ct.), the Court adopted *Mullard Radio* and said that in a process patent if “a special feature of the invention is essential to the success of the invented process” the inventor is not “entitled to claim a process ... in which the special feature is not used.”
- In the case of *Leithiser v. Pengo*, (1974), 17 CPR (2d), the patent only disclosed a device having two “capstan wheels” but the claim could have only one “capstan” wheel. [Capstan is a vertical axis wheel for winding a cable or rope around.] The claim was “more than the appellant invented and more than is described in the specification”.
- In the case of *Consolboard v. MacMillan Bloedel*, (1981), 56 CPR (2d) 145 the saving principle that a patent should be approached with a “judicial anxiety to support a really useful invention” did not apply where a “fair construction reveal[ed] that an essential element ... has not been claimed”.

***Amfac Foods Inc. v. Irving Pulp & Paper, Ltd.*, (1986), 12 CPR (3d) 193 (FCA)**



- Applying these principles to the patent in suit, the Court of Appeal held the slabbing blades and separation means were essential because “the inventor’s entire disclosure relates to a device for cutting potatoes for French fries from the center portion of the potatoes to achieve long, uniform strings while at the same time removing the outside cuts or slabs and diverting them for other uses.”
- In *Seedlings* (discussed herein) the Court of Appeal recognized that it is “awkward” to say an element is essential to the invention of the patent if it has not been claimed.
- The “other side of the coin” would have been whether the patent was sufficient to teach a skilled person how to make a water knife with only a central cutting mechanism, without any inventive skill or undue experimentation. Expert evidence would have been required.
- Based on overbreadth - the Court construed the specification as a matter of law and decide that the slabbing blades and separation means were essential.

Frac Shack Inc. et al. v. AFD Petroleum Ltd., 2017 FC 104

- The patent related to a system and method for automatically refueling equipment at a well site during hydraulic fracturing of a well, while the equipment is operating.
- The patent described a fuel source, having plural fuel outlets attached to hoses, which deliver fuel to individual equipment fuel tanks around the site independently of each other.
- An issue at trial was whether it was essential to the invention described in the patent that the valves for controlling the flow of fuel in the hoses be placed at the fuel source.

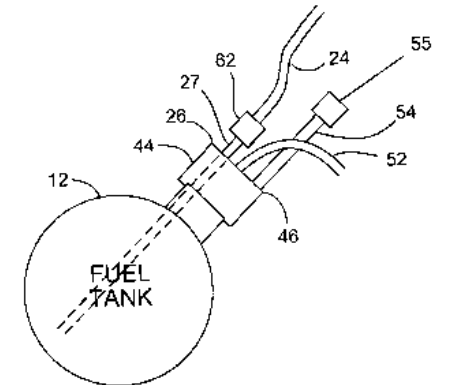


FIG. 2

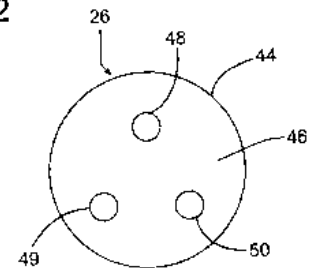
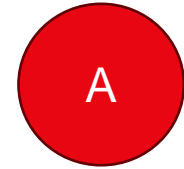


FIG. 3

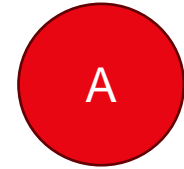
Frac Shack Inc. et al. v. AFD Petroleum Ltd., 2017 FC 104

- The Defendant argued the method claims were overbroad because they did not specify where the valves are to be placed.
- The Trial Court found that it was not essential to the invention (system or method) where the valves are located.
- It might be safer to have them at the source, but it was not essential.
- A skilled person would know where to place the valves to make the invention work. A utility point?
- The method claims were not overbroad.



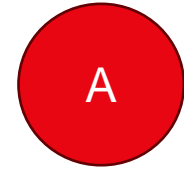
AFD Petroleum Ltd. v. Frac Shack Inc., 2018 FCA 140

- The Court of Appeal asked the Court to reconsider the common general knowledge for the purposes of obviousness.
- For the purposes of claims broader, the Court of Appeal was satisfied that the summary of the invention supported the finding that it was not essential to the method where the valves were located.
- The method was described in the summary section more broadly than the system.
- The Court of Appeal found that as a matter of construction of the whole of the specification (including the claims) it was essential to the system where the valves were located, but it was not essential to the method.
- On remand, the initial findings of validity and infringement were confirmed.



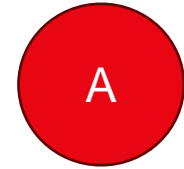
AFD Petroleum Ltd. v. Frac Shack Inc., 2018 FCA 140

- [49] The notion of overbreadth may encompass either a legal or a factual issue in that the claims of a patent may be broader than the invention disclosed in the specification or may be broader than the invention made. The former is a question of construction (and a matter of law) whereas the latter is a question of fact: *Nova Chemicals Corporation v. Dow Chemical Company*, [2016 FCA 216](#) at para. 45, 487 N.R. 230; *Farbwerke Hoechst Aktiengesellschaft v. Canada (Commissioner of Patents)* (1965), [1965 CanLII 1102 \(CA EXC\)](#), [1966] Ex. C.R. 91 at pp. 106-107, 31 Fox Pat. C. 64 at pp. 80-81 (Ex. Ct.), aff'd [1966 CanLII 66 \(SCC\)](#), [1966] S.C.R. 604, 50 C.P.R. 220.
- [50] Here, AFD principally asserts that the Federal Court erred in its construction of the 567 Patent because it says that the location of the valve(s) on the fuel source is an essential element of the invention claimed in the 567 Patent. AFD asserts that the method claims set out in claims 11 to 15 of the 567 Patent are void for overbreadth as the method claims contain no restriction concerning the location of the valve(s). These are legal issues and thus amenable to review based on correctness.



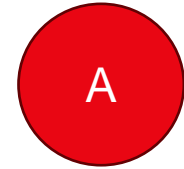
AFD Petroleum Ltd. v. Frac Shack Inc., 2018 FCA 140

- [51] I agree with AFD that the Federal Court erred in its discussion of this issue but am of the view that this error is of no consequence as the Federal Court was correct in holding that claims 11 to 15 of the 567 Patent are not overly broad.
- [52] More specifically, contrary to what the Federal Court stated in paragraph 223 of its Reasons, I disagree that “there is no indication [in the specification] that [the valves] are required to be located at a particular place in the system”. On the contrary, as concerns the fuel delivery system, valve placement is an essential element. This is evident from several portions of the specification and from the claims for the system.



AFD Petroleum Ltd. v. Frac Shack Inc., 2018 FCA 140

- [53] **The summary of the invention** provided by the inventors in the 567 Patent includes valve placement as an element of the fuel delivery system on par with the other facets of the system invented, describing the system invented as being:
 - [...] **a fuel delivery system** for delivery of fuel to fuel tanks of equipment at a well site during the fracturing of a well, the fuel delivery system comprising a fuel source having plural fuel outlets, a hose on each fuel outlet of the plural fuel outlets, each hose being connected to a fuel cap on a respective one of the fuel tanks for delivery of fuel to the fuel tank; and **a valve arrangement at each fuel outlet controlling fluid flow through the hose at the respective fuel outlet.** The valve arrangement may be a single valve, for example manually controlled.
- [emphasis added]



AFD Petroleum Ltd. v. Frac Shack Inc., 2018 FCA 140

- [54] In addition, the detailed description indicates that the fuel delivery system invented has a valve or valves for controlling fluid levels and, in paragraphs 12 and 17 (the two places where valve placement is discussed), provides that the valves are to be located on the fuel outlets from the fuel source. Moreover, each of the independent claims to the fuel delivery system contains a similar stipulation. Thus, valve placement is an essential element for the fuel delivery system described in the 567 Patent.
- [55] Despite the error in failing to recognize this, I see no basis for interfering with the Federal Court's conclusion on the overbreadth issue as the 567 Patent makes it clear that the inventors invented both a method and a system and that the method invented is different from and broader than the system that was invented. This is evident from the summary section of the specification, which commences by identifying the invention as being a fuel delivery system and a method (at para. 0003). This section then goes on to describe the invented method in a separate paragraph that contains no mention of valve placement, describing the method in para. 0004 as being:
 - A method is also provided for fuel delivery to fuel tanks of equipment at a well site by pumping fuel from a fuel source through hoses in parallel to each of the fuel tanks; and controlling fluid flow through each hose independently of flow in other hoses.

Aux Sable Liquid Products LP v. JL Energy Transportation, 2019 FC 581

- Impeachment action relating to a patent for the more efficient transportation of natural gas by pipeline.
- The patent related to the more efficient transportation of natural gas (which is mostly methane CH₄) by adding an optimized amount of heavier natural gas molecules, ethane (C₂H₆) and propane (C₃H₈), in the gas to be transported.
- The optimization calculation was based on a factor “Z” multiplied by the molecular weight (Mw).
- Two (2) claims to gas mixtures that were claimed without reference to the optimization of the zMw product by the addition of ethane and propane were held invalid for overbreadth.
- Court noted that claims construction for determining essentiality for the purposes of infringement is a different exercise than determining whether an element is found in the claims at all.
- These claims were also invalid for inutility because they encompassed mixtures that would not necessarily be more efficient to transport by pipeline.

Aux Sable Liquid Products LP v. JL Energy Transportation, 2019 FC 581

- Claim 1 to 8 related to a method of transporting natural gas by pipeline. Claims 9 and 10 were for a gas mixture for use in a pipeline.
- 9. A gas mixture, for use in a pipeline at a pressure greater than 1,000 psia and a temperature of from -40 degrees F to +120 degrees F, which comprises:
 - (a) from 68 to 92% by volume of methane;
 - (b) from 6 to 35% by volume of ethane;
 - (c) from 0 to 9% by volume of propane;
 - (d) from 0% by volume of C4 hydrocarbons to a percentage of C4 hydrocarbons which does not liquify at the pressure used;
 - (e) not more than 1% of carbon dioxide;
 - (f) not more than 2% of nitrogen, the total being 100%, and such mixture being completely gaseous with no liquid phase at the temperature and pressure of intended operation.
- 10. A gas mixture as claimed in claim 9, said gas mixture being at a pressure of 1000-2200 psia and a temperature of from -20 degrees F to +120 degrees F.

Aux Sable Liquid Products LP v. JL Energy Transportation, 2019 FC 581

- [56] Section 27(4) of the Act provides that a patent's specification must end with a claim or claims defining distinctly and in explicit terms the subject matter of the invention for which an exclusive privilege or property is claimed. Aux Sable refers the Court to the explanation, by the Supreme Court of Canada in *Canadian Celanese Ltd. v B.V.D. Co.*, [1937] SCR 221 at page 237, as to how a patent can be invalid due to overbreadth of its claims:
 - 40 In the Canadian patent involved in this appeal before us the inventor did not state in his claims the essential characteristic of the actual invention though it does appear in the claims in his British and United States patents. No explanation is offered. We are invited to read through the lengthy specification and import into the wide and general language of the claims that which is said to be the real inventive step disclosed. But the claims are unequivocal and complete upon their face. It is not necessary to resort to the context and as a matter of construction the claims do not import the context. In no proper sense can it be said that though the essential features of the invention is not mentioned in the claims the process defined in the claims necessarily possesses that essential feature. The Court cannot limit the claims by simply saying that the inventor must have meant that which he has described. The claims in fact go far beyond the invention. Upon that ground the patent is invalid.

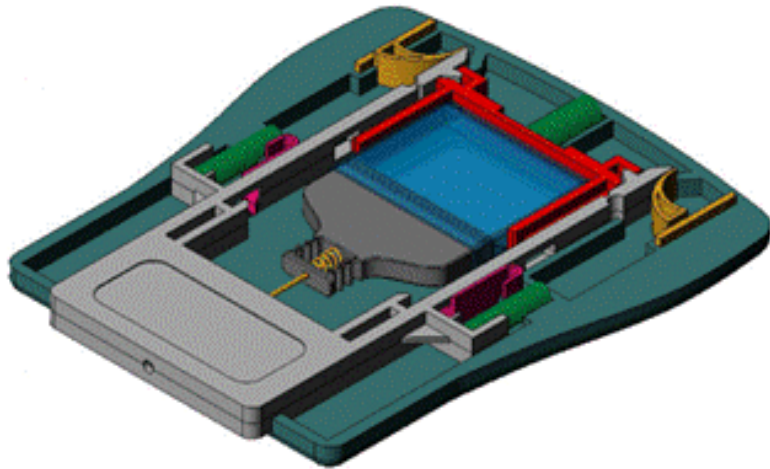
Aux Sable Liquid Products LP v. JL Energy Transportation, 2019 FC 581

- [59] In support of this position, Aux Sable refers the Court to the “Summary of the Invention” contained within the specification of the '670 patent, which reads as follows:
Summary of the Invention
 - It has now been found that, at pressures over 1000 psia, it is advantageous to add to natural gas an additive which is a C2 or C3 hydrocarbon compound or a mixture of such additives. Above a lower limit (which varies with the additive being added and the pressure), this results in a smaller product of the z factor times the average molecular weight of the gas (hereinafter called the zMw product) than would exist with methane alone, therefore leading to a decrease in the amount of power needed to pump the mixture or to compress it.
- [60] Aux Sable also relies on the evidence of its experts. Dr. Sharma states in his report that the Skilled Person reading the '670 patent as a whole would understand that the invention disclosed in the patent generally relates to the addition of a C2 and/or C3 hydrocarbon to natural gas, ensuring that the product of the average molecular weight and the z factor was lower for the resulting mixture, and achieving efficiencies by transporting the resulting mixture at the claimed pressures and temperatures. Dr. Sharma opines that claims 9 and 10 of the '670 patent are broader than the invention described in the patent, because those claims do not require the addition of C2 and/or C3 hydrocarbons, do not require a comparison of the gas mixture before and after the addition, and do not require that the zMw of the mixture be reduced as a result of such addition.

Aux Sable Liquid Products LP v. JL Energy Transportation, 2019 FC 581

- [72] I appreciate that, as explained in *Free World Trust v Électro Santé Inc.*, 2000 SCC 66 [Free World Trust] at paras 20-23, it may be necessary, for consideration of both validity and infringement allegations, to identify essential and non-essential elements of the claims of a patent in the course of the antecedent claim construction. However, this is clearly not the same analysis that is contemplated by paragraph 32 of *Amfac Foods*. That paragraph refers to essential elements disclosed as part of the invention and the need to consider whether such elements are mentioned in the patent's claims. Such analysis does not involve whether a particular element is an essential or non-essential component of the claims (the process contemplated by *Free World Trust*), but rather considers whether the element is found in the claims at all.
- [73] I nevertheless accept that the analysis contemplated by *Amfac Foods* requires that the element of the invention disclosed, which is alleged to be missing from the claims, itself be an essential element of that invention. However, in that respect, I find no evidentiary deficiency in the expert reports upon which *Aux Sable* relies. While Dr. Sharma does not expressly state that the elements of the invention missing from claims 9-10 are “essential elements”, this is clearly the point being conveyed by his evidence. Indeed, in introducing his opinion on overbreadth, Dr. Sharma's report refers to the advice he has received, presumably from *Aux Sable*'s counsel, that claims are overly broad if an element essential to the invention is omitted from the claims. Moreover, Dr. Ramsay's report expressly refers to each of the addition of C2 and/or C3 and the zMw limitation as an “essential limitation” that is omitted from claims 9-10.

Seedlings Life Science Ventures, LLC v. Pfizer Canada ULC, 2020 FC 1



- EpiPen case.
- Patent disclosed an auto-injector with specific parts and pieces that were omitted from the claims:
 - a "syringe carrier";
 - a "flat reverse syringe or collapsible bellows"; and
 - a "shared latch locking mechanism".

Seedlings Life Science Ventures, LLC v. Pfizer Canada ULC, 2020 FC 1

- These omitted elements of the embodiment disclosed in the patent were not found in the asserted claims.
- The defendant argued that these elements were essential to the “invention” disclosed in the patent and not included in the asserted claims, so the asserted claims were overbroad.
- Trial judge referred to *Amfac* and *Aux Sables*.
- Trial Judge also referred to *Les Laboratoires Servier v. Apotex*, 2019 FC 616 at 205-231 where a claim to a particular composition of matter – the arginine salt of perindopril and its hydrates – was construed to encompass three (3) different salt forms of perindopril (including the L-arginine, D-arginine or racemate arginine salt).
- There the claim (a composition of matter) was invalid because the evidence did not show that the inventors had made all three (3) of the salt forms, or a hydrate.

***Seedlings Life Science Ventures, LLC v. Pfizer Canada ULC*, 2020 FC 1**

- [173] The case law does not delineate a specific method for the assessment of overbreadth. Usually, a finding of overbreadth flows from the fact that an essential element of the invention is missing from the claims: *BVD*, at 235; *Radio Corp of America v Raytheon Manufacturing Co* (1957), [1956-60] ExCR 98 at 117; *Amfac Foods Inc v Irving Pulp & Paper Ltd* (1986), 12 CPR (3d) 193 at 204–205 (FCA); *Aux Sable*, at paragraph 58. **Determining that an essential element is missing from the claims is a delicate endeavour.** Essential elements are usually identified on the basis of the presumed intent of the inventors: *Free World Trust*, at paragraphs 58–60. Nevertheless, there is also an objective component to the analysis, in particular whether an element can be substituted without changing the manner in which the invention works: *Free World Trust*, at paragraphs 55–57. The overbreadth analysis will necessarily focus on those objective elements. The Court must do so, however, in a manner that seeks to avoid resuscitating the promise doctrine. In other words, the search for the missing essential element must not morph into an inquiry into the achievement of the invention’s objectives.

Seedlings Life Science Ventures, LLC v. Pfizer Canada ULC, 2020 FC 1

- The Court concluded that the omitted elements were “essential features” of the invention for three (3) reasons:
 - (1) all the preliminary designs the inventors came up with had these features, the features were included in the embodiments shown in the specification, and the patent did not teach how to make an EpiPen without these features [176]
 - (2) the features “interact with one another and are at the core of the mechanism of the device” and “the device would work differently if [the features] were replaced with other components” ... which would take inventiveness. [177]
 - (3) the features and their arrangement “are entirely original”. [178]

Seedlings Life Science Ventures, LLC v. Pfizer Canada ULC, 2020 FC 1

- The principle that the claims are not limited to the preferred embodiments did not save the claims. The Court found that an EpiPen without the identified features would “constitute a new invention”:
- [180] Likewise, Seedlings’s argument that the claims are not limited to the preferred embodiments disclosed in the specification can only carry us so far. The claims may not be limited to the embodiments, but there must be some outer limits. Those outer limits flow from the fact that the skilled person must not deploy inventiveness. Given that a patent is addressed to a skilled person, that person is expected to make minor changes and adjustments to the design disclosed in the specification. The skilled person, however, cannot show inventiveness in doing so. **In my view, based on the understanding of the design of auto-injectors that I gained through the trial, making a device that would omit one of the three elements that I identified above would require a substantial redesign. It would constitute a new invention.** Thus, Seedlings cannot claim, based on the idea that the embodiments do not exhaust the invention, auto-injectors that do not have the three essential features that I have identified.

Seedlings Life Science Ventures, LLC v. Pfizer Canada ULC, 2021 FCA 154

- On appeal to the Court of Appeal, the Court found that overbreadth is an independent ground of invalidity that co-exists with insufficiency.
- It is based on the bargain theory.
- It is the other side of the coin from insufficiency.
- The Court did comment that the proposition that an element is essential to “the invention” even though it is not in the claim is an “awkward” one since the claim defines the invention for which a monopoly is claimed.

Seedlings Life Science Ventures, LLC v. Pfizer Canada ULC, 2021 FCA 154

- With respect the statutory basis for the defense of overbreadth, the Court recited its reasoning from *Western Oilfield Equipment Rentals Ltd. v. M-I L.L.C.*, 2021 FCA 24 at [128]-[130] that overbreadth is a failure to meet the requirements of a specification and, therefore, the patent bargain; that it co-exists with other statutory grounds, such as insufficiency:
 - The concept of claim invalidity for overbreadth (or overclaiming) arises from the combination of the requirements that a patent specification (i) correctly and fully describe the invention (see [subsection 27\(3\)](#) of the *Patent Act*), and (ii) include “claims defining distinctly and in explicit terms the subject-matter of the invention for which an exclusive privilege or property is claimed” (see subsection 27(4)). One may also consider overclaiming as a natural consequence of the bargain theory of patent law as described in *Free World Trust [v. Électro Santé Inc.]*, [2000 SCC 66](#), [2000] 2 S.C.R. 1024, at paragraph 13: “[i]n return for disclosure of the invention to the public, the inventor acquires for a limited time the exclusive right to exploit it.” **If a patent claims more than it describes, or more than the inventor has made, it gives the patentee more than the bargain entitles them to. Such a claim violates the bargain and is therefore invalid.**
 - Overbreadth often overlaps with other grounds of invalidity. For example, a claim that is invalid for anticipation because it encompasses embodiments that are described in the prior art may also be considered overbroad for claiming more than the inventor has truly invented. **In addition, overbreadth might be considered the other side of the coin of insufficiency. Where a claim is broader than the description, it may fail for overbreadth, but it may also fail because the description does not adequately describe how to put it into practice.** Despite this possibility of overlap, overbreadth is a distinct ground of invalidity that must be considered separately.

Seedlings Life Science Ventures, LLC v. Pfizer Canada ULC, 2021 FCA 154

- With respect to the second and third points, the Court of Appeal explained overbreadth doctrine as contemplated by the *Amfac* decision (ie. are features “so key to the invention” that any claim that omits them “encompasses embodiments that were not contemplated in the disclosure”) and affirmed that the doctrine of overbreadth survived the Supreme Court decision in *AstraZeneca v. Apotex*, 2017 SCC 36 in which the “promise doctrine” was overruled:
 - [52] I acknowledge that the overlap with other grounds of invalidity makes it difficult to define circumstances in which a patent claim would be invalid for overbreadth but not also invalid on other grounds. In this regard, it may be helpful to consider *Amfac*. There, this Court affirmed a trial decision that found that claims of a patent on a device for cutting potatoes into french fries were invalid for overbreadth because they omitted a feature of the device that was essential to the working of the invention as described. The awkward aspect of *Amfac*, and of the present case, is that determining that a feature is essential had to be done by reference to the disclosure, not the claims. This is awkward because it is the claims that define the scope of the monopoly that the inventor asserts, and it is they that are typically reviewed to determine the essential features of the invention for the purpose of claim construction: *Free World Trust v. Électro Santé Inc.*, 2000 SCC 66, [2000] 2 S.C.R. 1024 (*Free World Trust*), at paragraph 31. Recourse to the disclosure to construe the claims is appropriate only in certain situations: *Mylan Pharmaceuticals ULC v. Eli Lilly Canada Inc.*, 2016 FCA 119, [2017] 2 F.C.R. 280, at paragraph 39. Accordingly, one might reasonably ask how a feature can be found to be essential when it is absent from the claim.

Seedlings Life Science Ventures, LLC v. Pfizer Canada ULC, 2021 FCA 154

- [54] It is apparent that determining that a feature of an invention is essential is a distinct exercise for the purpose of overbreadth than for the purpose of claim construction. For overbreadth, the focus is not whether omitting or changing the feature avoids the claim (as it is for claim construction), but rather whether that feature is so key to the invention described in the disclosure that a claim that omits it encompasses embodiments that were not contemplated in the disclosure. There is little helpful discussion in the jurisprudence as to how a feature should be assessed for essentiality for the purposes of overbreadth. However, uncertainty as to how to apply overbreadth is not a sufficient reason to set aside a principle of patent law that has been widely accepted for many decades: see *Farbwerke Hoechst Aktiengesellschaft Vormals Meister Lucius & Bruning v. Commissioner of Patents*, 1965 CanLII 1102 (CA EXC), [1966] Ex. C.R. 91, at page 106, (1965), 1966 CanLII 66 (SCC), 50 C.P.R. 220, at page 222, affd [1966] S.C.R. 604, (1966), 50 C.P.R. 246; Harold G. Fox, *The Canadian Law and Practice Relating to Letters Patent for Inventions*, 4th ed. (Toronto: Carswell, 1969), at pages 199–201. I am not prepared to accept that an element that is described in the disclosure of a patent but not claimed could never be considered an essential element that goes to the core of the invention.
- [55] I close this section by noting that the Supreme Court itself, in *AstraZeneca*, at paragraph 46, recently indicated that “[a]n overly broad claim may be declared invalid”.

Seedlings Life Science Ventures, LLC v. Pfizer Canada ULC, 2021 FCA 154

- The Court of Appeal then analyzed the Court's reasons for concluding that the three elements in question were "essential" to the disclosure. The first and third reasons were deemed insufficient.
- The first reason (all the prior designs and embodiments have the features) conflicts with the principle that the claims are not necessarily limited to the preferred embodiment.
- The third reason (the features and their arrangement are "original") conflicts with the principle that an inventor does not need to claim every invention embodied by a disclosure.
- A specification might, for example, be found to disclose more than one invention.
- The second reason was the most cogent. Namely, the features work together to solve one of the shortcomings in the prior art – and it would be inventive to come-up with another solution.
- That reason also supported an insufficiency finding.

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- [62] So, do the Omitted Elements go to the core of the invention described in the '935 patent? I mentioned at paragraph 7 above that the '935 patent describes two shortcomings of the prior art: bulkiness and the needle exposure after deployment. The proposed solutions to these shortcomings are good indicators of what the inventor considered to be the core of the invention. The first shortcoming was solved by having a flat housing. That quality of flatness is not really in issue here, though I note that, among the claims of particular interest for overbreadth (claims 40, 59, 60 and 62), flatness is incorporated only in claim 40. It is the second shortcoming that is addressed by the Omitted Elements.
- [63] The fact that the Omitted Elements are described in all of the embodiments of the '935 patent is not enough, without more, to require that they be included in the claims in issue. However, a key pair of additional findings by the Federal Court is that the '935 patent does not describe how to make the invention without the Omitted Elements (see paragraph 176 of the Reasons), and an un inventive skilled person would not know how to do so (see paragraph 177 of the Reasons).
- [64] These findings would seem to lead more readily to a conclusion of insufficiency than overbreadth (insufficiency is discussed in the next section). However, the fact that claims may be invalid for insufficiency does not prevent a finding of overbreadth.

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- The Court of Appeal found that the claims in issue were invalid for both overbreadth and insufficiency.
- The claims were overbroad because they were missing essential features of the invention disclosed in the specification.
- The specification was insufficient because it did not teach a skilled person how to practice the claimed invention without inventive skill.

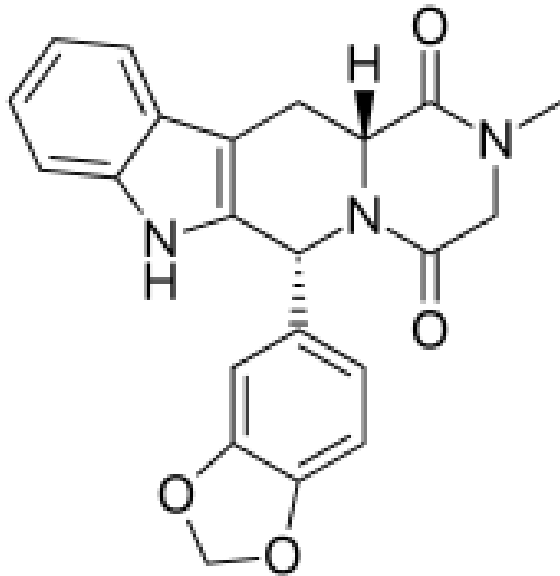
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- [68] With regard to the Federal Court's basis for dismissing the insufficiency allegation, it is not enough for the disclosure to teach how to make the preferred embodiment. The disclosure must teach the skilled person to put into practice all embodiments of the invention, and without exercising inventive ingenuity or undue experimentation. In *Consolboard Inc. v. MacMillan Bloedel (Sask.) Ltd.*, [1981 CanLII 15 \(SCC\)](#), [1981] 1 S.C.R. 504, at page 520, (1981), 56 C.P.R. (2d) 145, at page 157, the Supreme Court of Canada stated:
 - Section 36(1) [now subsection 27(3)] seeks an answer to the questions: "What is your invention? How does it work?" With respect to each question the description must be correct and full in order that, as Thorson P. said in *Minerals Separation North American Corporation v. Noranda Mines, Limited* [[1949 CanLII 55 \(SCC\)](#), [1947] Ex. C.R. 306, at page 316, (1947), 12 C.P.R. 99, at page 102, revd [1950] S.C.R. 36, (1949), 12 C.P.R. 99, affd (1952), 15 C.P.R. 133, 12 Fox Pat. C. 123 (P.C.)]:
 - ... when the period of the monopoly has expired the public will be able, having only the specification, to make the same successful use of the invention as the inventor could at the time of his application.
- [69] This same passage was quoted again by the Supreme Court of Canada in *Teva Canada Ltd. v. Pfizer Canada Inc.*, [2012 SCC 60](#), [2012] 3 S.C.R. 625, at paragraph [50](#).

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- [70] It may be helpful to consider the bargain theory of patent law mentioned in paragraph 50 above in the quote from *Western Oilfield*. As described in *Free World Trust*, at paragraph 13, this is the theory that, “[i]n return for disclosure of the invention to the public, the inventor acquires for a limited time the exclusive right to exploit it.” If an inventor could validly limit the disclosure of the invention to one or two particular aspects, but claim further aspects thereof that are not described and which a skilled person would not be able to make, then the inventor would be getting exclusive rights to aspects of the invention that are not taught to the public. This would give the inventor more than the bargain permits, in the sense that, after expiration of the patent, the public would not be able “to make the same successful use of the invention as the inventor could at the time of his application”.
- [71] In the present case, Seedlings’ claims in issue encompass devices that do not include the Omitted Elements. As a result, these claims are broader than the embodiments described in the disclosure. For claims of this scope to be valid, subsection 27(3) requires that the disclosure teach a skilled person how to make such devices. Based on the Federal Court’s finding at paragraph 177 of the Reasons that a skilled person would not know how to make a device without the Omitted Elements, it follows that the '935 patent does not meet this requirement.

Eli Lilly v. Apotex, 2020 FC 814



- The claim at issue was to a method of preparing a substance that involved the use of a “solvent” as part of the claimed chemical reaction.
- The defendant’s argument that the claim was broader than the invention made based on evidence that one of the solvents listed in the patent did not work to crystallize the desired substance.
- That argument was rejected as amounting to an improper parsing of the disclosure to find a “promise” that the listed solvent would work – even though the claim was to the use of a “solvent” more generally.
- The Court contrasted the overbreadth doctrine, where essential elements of the disclosure are omitted from the claims, with the abolished promise doctrine in which the disclosure is “parsed” to identify unmet promises of utility that are said to have been imported into the claims.

Eli Lilly v. Apotex, 2020 FC 814

- [350] Apotex alleges that Claims 1, 3, 4 and 7–10 extend beyond what was actually invented because Dr. Doecke, another named inventor of the 540 Patent, under the supervision of Dr. Martinelli, investigated [the solvent], but the desired cis-diastereomer did not crystallize in solution (transcript of January 14, 2020 at pages 97–98). Nevertheless, Apotex asserts that Lilly falsely contend in page 22 of the 540 Patent that [the solvent] would work by having it on the second list of useful solvents. The heart of Apotex's argument is thus whether [the solvent] is within the scope of Claim 1b or outside of the scope of Claim 1b.
- [351] Lilly submit, first, looking purely at the law, that it is clear they have not set the fences broader than the invention made; and second factually, that Apotex has not met its burden in terms of the evidence that they have attempted to put forward to support its allegation. They assert that different solvents can be used and they must respond to the limitation, hence solvents in which the desired diastereomer crystallises. If a solvent does not meet that limitation, it is not claimed.

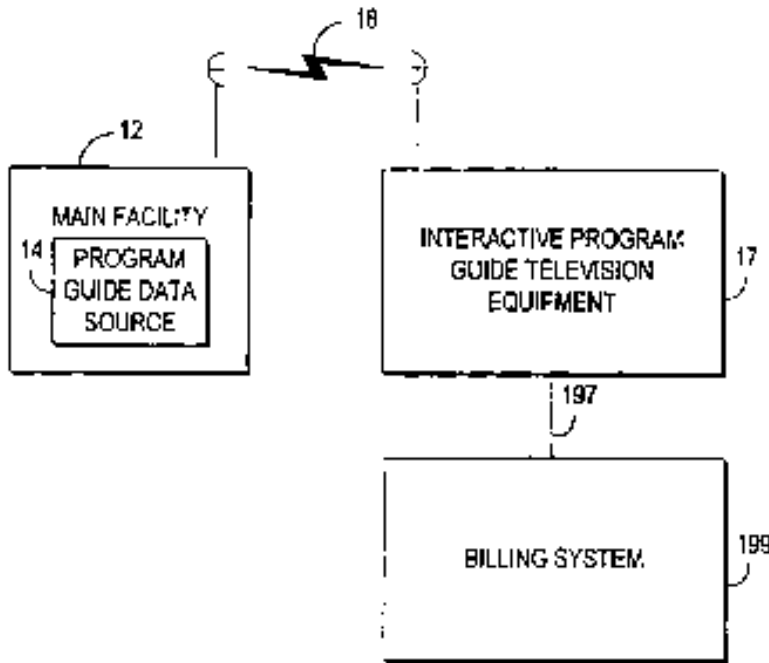
***Eli Lilly v. Apotex*, 2020 FC 814**

- In this case, the Court found that the defendant was dressing up a “promise of the patent” type of argument as overbreadth.
- “The way that Apotex articulated the allegation of overbreadth in this case appears indeed very akin to the promise doctrine, abolished in *AstraZeneca* SCC. What Apotex really asks the Court to do is to parse the disclosure, conclude that [a particular solvent] promises to be useful for the [type of reaction at issue], import [the solvent] into Claim 1 in the absence of any ambiguity, and strike Claim 1 as a result.”

Eli Lilly v. Apotex, 2020 FC 814

- [357] The SCC warned against this doing this (*AstraZeneca* SCC at para 31):
 - The Promise Doctrine, by contrast, directs courts to read both the claims and the disclosure to identify potential promises, rather than the claims alone, even in an absence of ambiguity in the claims. After a process of identifying promises, the doctrine equates the fulfillment of these promises (by demonstration or sound prediction) with the requirement in s. 2 that an invention be useful. The doctrine then goes on to provide that if any one of the promises is not fulfilled, then the utility requirement in s. 2 is not met and the patent, in its entirety, is invalid.
- [358] As such, the doctrine of overbreadth should not be applied in the manner suggested by Apotex, akin to the promise doctrine (see *Les Laboratoires Servier v Apotex Inc*, 2019 FC 616 at para 237; *Apotex Inc v Abbott Laboratories, Limited*, 2018 ONSC 5199 at paras 8, 27–28).

Rovi Guides v. Bell Canada, 2022 FC 1388



- This was a case about four (4) patents relating to “interactive television program guide” and “internet protocol television” technologies.
- The claims being asserted under one of the patents (the “870 Patent”) were added to the patent application after the launch of the allegedly infringing services offered by the defendants. The defendants asserted that the asserted claims were broader than the invention made.
- There was testimony from one of the inventors that the invention he made relating to the 870 Patent was described in an initial one-page provisional patent application. Plus, the defendants’ expert gave expert testimony to the effect that the provisional patent application did not disclose the subject matter of the asserted claims.
- However, the patentee argued that the “invention made” is determined as of the filing date – once the full application is filed – and the inventor was not asked about his invention relative to the full application.
- In the circumstances, the defendants “failed to rebut the presumption that the invention made is determined by the patent itself.”

Overbreadth is the “other side of the coin” from insufficiency.

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- **Overbreath**

- Whether an element is essential to the invention disclosed is a construction issue.
- There is “little guidance” in the case law on how to construe the disclosure for overbreadth.
- The claims construction doctrines do not apply.
- Overbreath ≠ Promise Doctrine
- The invention made is presumed to be determined by the patent.

- **Insufficiency**

- It is not enough to be able to make the preferred embodiment described in the patent.
- The skilled person must be able to practice the full scope of the claimed invention – without inventiveness or undue experimentation.



Q & A

Thank you!