Patents CAN (Reynolds’ IP) – Sarah Hannigan

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# INTRODUCTION

A patent is a limited-term state concession of a monopoly over the exploitation of an invention for 20yrs from the date the application was filed (ss42, 45(2)). In essence, the federal gov’t confers to the inventor the **right to exclude** others from making, using, or selling the invention from the day the patent is granted.

**RATIONALE** 🡪 At its core, a patent is a ***quid pro quo***—it reflects a ***bargain*** b/w the inventor and the public: the inventor is granted exclusive rights in a new and useful invention for a limited period of time in exchange for disclosure of the invention so that society can benefit from this knowledge (*Teva*)

* Encourage innovation (*Teva*)
* Advances science and technology (*TevaCanada*)
* Stimulates economic activity (*TevaCanada*)
* Encourages broader economic activity (*Wellcome*)

# CLAIMS CONSTRUCTION

Patent claims describe what is not to be made or used by anyone else during the term of the patent—anything that’s disclosed in the specification but not claimed is not protected (although extrinsic evidence is relevant to the obviousness analysis. Claims construction determines the exact scope of a patentee’s rights.

**APPLICATION** 🡪 Claims construction is important:

* For assessing exactly **what is claimed** by the inventor
* In **patent infringement cases** 🡪 a claim construction must happen before a validity or infringement analysis (*Whirlpool*)
* In cases where it’s at issue whether the claimed invention is **patentable subject-matter**

**PRINCIPLES of CLAIMS CONSTRUCTION**

* Each individual claim must have all the **elements of patentability**: patentable subject-matter, novelty, utility, and non-obviousness
* Interpret the claims according to the intent of the inventor expressed or inferred from the claims
* Claims are typically “**nested**”, meaning if an outer, broad claim fails, inner claims might nonetheless survive
* Remember s58: valid claims can survive in the face of invalid claims
* Be sympathetic, but not so generous as to give a meaning that wasn’t intended
* Extrinsic evidence shouldn’t be relied upon

**ANALYSIS** 🡪 The court, with the help of a **skilled reader**, must identify the words that describe what the inventor considers to be the **essential elements** of the invention via a ***purposive interpretation*** (*Whirlpool*)

* **Skilled reader** = one that possesses ordinary skill and knowledge in that particular art, with a mind willing to understand
* **Rationale:** A *purposive interpretation* is req’d because the inventor negotiated the terms of the claims with the Patent Office and was granted the monopoly *specifically for their purpose*—it is reasonable both to the public and inventor, and aims to establish some degree of predictability (*Whirlpool*)
	+ *Predictability is achieved by tying the patentee to its claims, fairness is achieved by interpreting those claims in an informed and purposive way*(*Free World Trust*)

# PATENTABLE SUBJECT-MATTER

Only an **invention** is patentable, which s2 defines as any new and useful art, process, machine, manufacture, or composition of matter, or any new and useful improvement in the aforementioned subject-matters. From *Harvard*, we know that inventions must apply to fields of technology—fine arts are excluded from patentability.

## ART

*Shell Oil* defines “art” as the application of knowledge to effect a desired result. Because knowledge is an abstract concept, it must be defined in a way that gives *practical effect* to the knowledge, and it must be claimed as either a **method** or a **use**.

**Method**🡪 An act or series of acts performed by some object and producing in that object some change of either character or condition (*Lawson*, cited in *Amazon.com*; MOPOP 12.02.01); *must not require any specific steps to be followed* (MOPOP)

* **Test for art as a “method”** (*Amazon.com*)**:**
1. It must not be a disembodied idea, but have a method of practical application
2. It must be a new and inventive method of applying skill and knowledge
3. It must have a commercially useful result

**Use**🡪 The application of certain means to achieve a specific result; *involves directing the person skilled in the art to take a step or series of steps to arrive at the desired result* (MOPOP)

* **E.g.** The use of a known drug to treat a known disease (novel use of a known compound)

## PROCESS

A process is a mode or method of operation by which a result or effect is produced by physical/chemical action, by the operation or application of some element or power of nature or one substance to another (MOPOP).

* ***Ciba-Geigy*:** A process implies the application of a method to materials—the method may be known and the materials may be known, but **the idea of making the application to produce a new and useful compound** may be new

**TEST** 🡪 As per *Bilski*, an invention is a “process” only if either:

1. **Machine—**It’s tied to a particular machine or apparatus, **or**
2. **Transformation**—It transforms a particular article into a different state or thing

## MACHINE

A machine is defined as the mechanical embodiment of any function or mode of operation designed to accomplish a particular effect (MOPOP 12.02.03)

## MANUFACTURES

This category refers to the process of making technical articles/material (in modern use on a large scale) by the application of physical labour or mechanical power or the article/material made by such a process (MOPOP 12.02.04). *Harvard* clarifies that a manufacture is a *non-living* mechanistic product or process.

**ISSUE** 🡪 *Is a higher life form patentable as a manufacture?*

* **Majority in** *Harvard***:** Manufacture means a non-living *mechanistic* product or process—this doesn’t include complex life forms
	+ **Manufacture** = The production of articles for use from raw or prepared materials by giving to these materials new forms, qualities, properties, or combinations, whether by hand labour or by machinery (*Chakrabarty*)
* **Dissent in** *Harvard***:** The oncomouse falls into the classification of manufacture since the majority’s distinction between higher and lower life forms is a circle that creates an arbitrary gap between classifications

**END PRODUCT** 🡪Since “manufacture” connotes the making of something, it is seldom that there can be a manufacture unless there is a vendible product in the end—it must accomplish some change in the character or condition of material (*Lawson*)

* This “champagne glass” plan for subdividing land is not a manufacture because it doesn’t change the character of land and it does not affect the owner’s ability to deal with the land (*Lawson*)

## COMPOSITION of MATTER

This category encompasses combinations of ingredients, whether combined as a chemical union or physical mixture, and includes chemical compounds, compositions, and substances (MOPOP 12.02.05).

**ISSUE** 🡪*Is a higher life form patentable as a composition of matter (CoM)?*

* **Majority in** *Harvard***:** A composition of matter that completes an enumeration (art, process, machine, etc.) is often restricted to the **same genus** as those words, even though the collective term may ordinary have a much broader meaning—here, look at the enumeration: none of those terms imply a **conscious, sentient, living creature** =higher life forms ≠ CoM
	+ The oncomouse itself is composed of various ingredients and substances, but it doesn’t consist of ingredients or substances combined together by the inventor
	+ For the purposes of assessing the patentability of a composition of matter, the inventor must be combining/mixing the ingredients from start to finish
	+ Higher life forms are therefore not patentable because they contain an aspect (soul) that transcends the physical ingredients that they are composed of
* **Dissent in** *Harvard***:** CoM is an open-ended expression—nowhere in the definition of invention is it expressly confined to inanimate matter

## NEW & USEFUL IMPROVEMENTS

Most inventions aren’tpioneering inventions in a new field or industry, but are rather **improvements** to existing arts, processes, machines, manufacturers and compositions of matter

* **E.g.**: A newfound medical use for a known and patented pharmaceutical compound may qualify as an improvement in an art
* **Rule:** As long as they are statutory subject-matter and meet the patentability requirements, improvements can be patented
* **Application:** If you get a patent on an improvement, that doesn’t mean you can work/sell/use the underlying invention—you only have a patent on the improvement itself and the original patent holder does not have the rights to use the improvement (s32)

**ORIGINATING PATENTS** 🡪 Based on the originating invention (e.g. a new rxn or compound)

**SELECTION PATENTS** 🡪The *elimination* of an element from a previously patented composition which results in a new and useful improvement may also be patentable

* These are called “selection patents” because the original invention is improved upon ***selecting*** a subset of the elements
* **E.g.** A selection patent for a drug with fewer side effects/lower toxicity
* **Test for validity of selection patents** (*Apotex v Sanof*)**:**
1. There must be a **substantial advantage** to be secured or **disadvantage to be avoided** by the use of the selected members.
2. The **whole of the selected members** possess the advantage in question
* This relates to where you are drawing the circle around the subset of ingredients that you select
1. The **selection must be in respect of a quality of a special character peculiar to the selected group.**
* If a larger # of compounds have the same advantage, it wouldn't be special anymore = patent would be invalidated

**“*Evergreening*”**=attempting to get a patented improvement that is very minor to increase the length of time on the patent itself (to extend their monopoly on the invention)

## NON-STATUTORY SUBJECT-MATTER

Matters that don’t fall within the recognized categories in s2 are excluded as non-statutory subject-matter:

**SCIENTIFIC PRINCIPLES OR ABSTRACT THEOREMS** 🡪 As per s27(8), patents can’t be granted for any mere scientific principle or abstract theorem (e.g. law of gravity)

* **Rationale:** In actuality, these represent truth statements, which are not invented and therefore not patentable
* In *Schmeiser*, Arbour J determined that s27(8) effectively excludes **natural phenomena** and **laws of nature** from patentability
* **Computer programs:** While these were historically not patentable on the basis that they’re merely mathematical algorithms (*Schlumberger*), but Motorola successfully patented a mathematical algorithm by claiming it was part of a machine (the computer) in *Motorola*
	+ **Work-around:** A novel algorithm, if embodied in a firmware or hardware, won’t be characterized as abstract and will be patentable (*Motorola*)
	+ *Schlumberger* failed because the patent was for the algorithm itself, but might have succeeded had the algorithm been characterized as *part of the invention*

**BUSINESS METHODS** (*Amazon*) 🡪 **Rule:** Where a computer is found to be an essential element of a construed claim, the subject-matter will generally be statutory

* **Analysis:** A good indicator that the claim is directed to a statutory subject-matter is that it provides a technical solution to a technical problem

**PHYSICALITY REQUIREMENT** 🡪 The patentable subject-matter must be something with a physical existence or something that manifests a discernable change (*Amazon*)

* For a business method/algorithm/principle to be patentable **it has to have a practical application,** but this alone is not enough to mean that the physicality requirement is met
* **E.g.** A new one-click method of completing an online purchase is not the whole invention, but only one of a number of essential elements in a **novel combination**
* **Ask**: *Is the only novel aspect of the claimed invention the mathematical formula, or is the math formula only one essential part of what can overall be a novel invention?*

**PROFESSIONAL ARTS** 🡪 **Not patentable**

* **Rationale:** They reflect the personal knowledge and capacities that one would expect from anyone skilled in their filed
* **E.g.** A specific manner of x-examining a witness
* Arts have a **physicality requirement** that can’t be met just because the claimed invention has a practical application (*Amazon*, FC)—thus, only **manual arts** are patentable whereas professional arts are not (*Lawson*)

**METHODS of MEDICAL/SURGICAL TREATMENT** 🡪 **Not patentable**

* **Rule:** If the essential aspect of your patent claim instructs a medical professional **how to treat a patent**, then it is a method of medical treatment and not patentable
	+ *Tennessee Eastman*: The claim for using a known substance (glue) for a new purpose (bonding in a medical context) is at its core a method of medical treatment, and is therefore not patentable
* **Work-around:** If the essential aspect of your patent claim instructs a medical professional **on what to use** to treat a patient, then it is patentable subject-matter
* **Note:** In *Harvard*, the majority pointed out that the exclusion of methods of medical treatments re: *Tennessee Eastman* is based on s41, which has been removed from the *PA*
	+ **However**: The facts of *Tennessee* could fall still into the category of **professional skills or art**

## PATENTABILITY of LIFE

Lower life forms **= patentable subject matter** (*Harvard*)

* Micro-organisms, yeasts, moulds, fungi, bacteria, unicellular algae, cell lines, viruses, or protozoa – these are compositions of matter and you can have patents on these
* The fertilized mouse egg was patentable in *Harvard*
* The genes of the seeds were patentable in *Monsanto*

Higher life forms **≠ patentable subject matter** (*Harvard*)

* Seeds, plants, animals

# REQUIREMENTS of PATENTABILITY

In addition to falling within a patentable subject-matter, an invention must meet three other requirements of patentability: **utility** (s2), **novelty** (s2), and **non-obviousness** (s28.3).

## UTILITY (s2)

The s2 definition of “**invention**” imposes a requirement of usefulness, meaning that an invention must do what its patent describes—the promise of the invention must be fulfilled (*Teva*). The relevant date for consideration of an invention’s utility is the priority date of its Canadian patent application. Since patents are presumed to be valid once issued (s43(2)), it is difficult to strike one down for lack of utility.

**MARKETABILITY ≠ RELEVANT** 🡪 For the purpose of s2, utility doesn’t depend on the invention’s marketability—it simply means useful for the purpose claimed (*Wellcome*)

* The existence of doubt about the invention’s commercial success was not relevant in both *Permutit* (process for softening water) and *Fada Radio* (radio tuning device)

**UTILITY ANALYSIS** 🡪 The onus is on the *challenger* to show the patent is invalid on the BoP

1. **Promise:** As per *Laboratoires*, threshold utility is dependent on whether the patent application promises a specific result
* **Test:** Construe the patent to determine if a person skilled in the art would understand it to contain an explicit promise that the invention will achieve a specific result (*Sanofi-Aventis*)

If the specification promises a specific result 🡪 utility is **measured against the terms of that promise**

If the specification doesn’t promise a specific result 🡪 a **mere scintilla** of utility will suffice

* **Purposive construction:** *Astrazeneca* advises that courts apply a *purposive construction* in determining the promise of utility—look to the patent as a *whole*
* **Goals vs. promises:** Courts must be careful to distinguish between these (*Astrazeneca*)
* **Multiple claims:** Some promises may impose specific utility requirements across all of the patent’s claims, whereas others may only extend to a subset of the claims (*Pfizer*)
1. **Demonstration of utility:** As per *Wellcome*, the utility req’d for patentability can be either **demonstrated** or soundly predicted
* If there’s evidence that the invention is useful, that evidence may be put forward to establish utility
* If the invention = apparatus (**machine?**) 🡪 it’s sufficient if the apparatus has actually been built (*Ernest v Leesona*)
* If the invention = **process** 🡪 it’s sufficient if the process has been actually used (*Ernest v Leesona*)
1. **Doctrine of sound prediction:** If utility cannot be demonstrated, a **sound prediction** of the invention’s utility based on the information and expertise available at the time of the priority date will suffice, even if the prediction is ultimately incorrect
* **Rationale:** The doctrine of sound prediction balances the public interest in early disclosure of new and useful inventions even before their utility has been verified vs. the public interest in avoiding cluttering the domain with useless patents and granting monopoly rights in exchange for misinformation (*Wellcome*)
* **Test:** *Wellcome* provides a 3-step test in determining whether utility is soundly predicted—a question of fact:
1. There must be a **factual basis** for the prediction
* In *Monsanto* & *Burton Parsons*, the factual basis was supplied by the tested compounds
1. The inventor must have had, at the date of the patent application, an **articulable and sound line of reasoning** from which the desired result can be inferred from the factual basis
* In *Monsanto* & *Burton Parsons*, the line of reasoning was grounded in the known “architecture of chemical compounds”
1. There must be proper **disclosure**
* Normally, it’s sufficient if the specification provides a full, clear, and exact description of the nature of the invention and the manner in which it can be practiced (*Wellcome*)
* It’s generally not necessary for the inventor to provide a theory as to *why* the invention works—practical readers merely want to know that it does work and how to work it (*Wellcome*)
* ***Post facto* validation:** While the FCA in *Wellcome* accepted the “after-the-fact” validation theory (*so long as an inventor can demonstrate utility or a sound prediction at the time the patent is attacked, the patent won’t fail for lack of utility*), the SCC struck it down based on policy concerns:
	+ We don’t want major pharmaceutical Cxs patenting whole stables of chemical compounds for unrealized purposes hoping that, as in a **lottery**, a certain percentage of them would turn out to be useful for the purposes claimed—this would reward **deep pockets** rather than the ingenuity of true inventors
	+ An applicant doesn’t merit a patent on an *almost-*invention, where the public receives only a promise that a hypothesis might later prove useful—this would encourage applicants to put placeholders on intriguing ideas to wait for the science to catch up (not in accordance with the **bargain** **model**)

## NOVELTY (s2)

s2 requires that an invention be new in order to be patented, as it doesn’t further the public interest to grant a patent for an invention that’s already known. This idea is reflected in s28.2, which says that a patent’s subject-matter must not have been previously disclosed in Canada. **In assessing whether an invention is novel, we are essentially asking whether it has been disclosed in some way prior to patent’s claim date**.

**NOVELTY ANALYSIS**

1. **Establish the patent’s claim date**
* **Filing date** = Date on which the Commissioner receives certain documents, information, and fees (s28(1))
* **Claim date** = Establishes the date for determining the patentability of the invention defined by the claim
* **Starting presumption:** Claim date = filing date (s28.1(1))
* **Exceptions** [28.1(1)]**:** Claim date = the date of the previously filed application if:
1. The applicant has previously filed an application for:
	1. A patent which discloses the **same subject-matter** as defined in the claim, or
	2. If the person filing the application has filed an application for the **same invention in another country**;
2. The 2nd filing date is within **12 months** after the filing date of the previously filed application; and
3. The applicant has made a **request for priority** on the basis of the previously filed application via s28.4
4. **Determine whether the invention was disclosed prior to the claim date**
* **Statutory requirements:** s28.2(1) requires that the patent’s subject-matter must not have been disclosed:
1. >1yr before the applicant’s filing date or from a person who got knowledge directly/indirectly from the applicant ***in such a manner that the subject-matter became available to the public in Canada or elsewhere*** (see below…)
2. before the claim date by anyone else ***in such a manner that the subject-manner became available to the public in Canada or elsewhere*** (see below…)
3. in an application that’s filed in Canada by someone other than the applicant, and has a filing date that’s before applicant’s claim date; or
4. in a **co-pending application**: **prior art**—material which may disclose the invention—**amounts to disclosure where:**
* Someone other than the applicant has filed an application for a patent in Canada with a filing date after the applicant’s claim date;
* The other party has another date prior to the applicant’s claim date that it can rely on under s28.1;
* That date is within 12 months of the other party’s Canadian filing date; **and**
* The other party has requested priority based on its earlier filing date (via s28.4)
* **Result:** If the applicant’s claim date is prior to the other party’s claim date, the applicant’s patent will be void for lack of novelty
* “*In such a manner…*” = **2-part test for anticipation** (refined by Rothstein J in *Sanofi*)
	+ **Starting point:** Lack of novelty is only found when the invention has been disclosed in a single publication or use—this publication must disclose the invention without simply mosaicking references
	+ **Ways in which disclosure can occur:** Display of the invention in a public place; sale of the invention; use of the invention; conference presentation; online disclosure; filing of an earlier patent application
	+ **Test** (refined in *Sanofi*)—the court makes determinations on these elements on the BoP**:**
1. **Prior disclosure:** The prior publication must disclose subject-matter in such a way that, if performed, would *necessarily* result in infringement of that patent
* **Ask:** *Have all the essential elements of the new patent application been disclosed in a single document?*
* **Analysis:**
	+ At this stage, the skilled person is simply reading the prior patent for the purposes of understanding it
	+ The disclosure doesn’t have to be an exact description of the invention—it just must be sufficient so that the skilled person can understand what’s being said without trial and error (*Abbott*)
	+ Disclosure may be done by a person without him necessarily being aware of what he’s doing (*Abbott*)
* If this step is satisfied, then determine whether the disclosure would enable a skilled person to carry out what was disclosed…
1. **Enablement:** The person skilled in the art must have been able to perform the invention without undue burden—essentially, the main elements must have been disclosed in such a way that would allow the skilled person to actually *work* the invention
* **Analysis** (*Sanofi*)**:**
	+ If inventive steps are req’d, the prior art will not be considered to be enabling
	+ Routine trials are acceptable (*Abbott*: a certain amount of trial & error experimentation is allowed)
	+ The skilled person can use common general knowledge to supplement the information in the prior art or prior disclosed materials
	+ Obvious errors or omissions in prior art won’t preclude a finding of enablement
1. **Result:** If the skilled person carrying out the prior disclosure would infringe the claim, then the claim is anticipated (*Abbott*)
2. **If the claim is *anticipated*, then the invention isn’t *novel***

## NON-OBVIOUSNESS (s28.3)

To be patentable, an invention must not be obvious. According to s28.3, the subject-matter of the patent application must have been obvious on the claim date to a person skilled in the art or science, having regard to:

1. **Information disclosed >1yr before the applicant’s filing date**, or **by a person who directly/indirectly obtained knowledge from the applicant** in such a manner that the information became available to the public in Canada or elsewhere; and
2. **Information disclosed before the claim date by any other person** in such a manner that the information became available to the public in Canada or elsewhere

**RATIONALE** 🡪 A patent is given as a reward for full disclosure—an obvious invention isn’t deserving of a monopoly award

**NOVELTY vs. NON-OBVIOUSNESS**

* Novelty 🡪 Whether the invention has been disclosed in a single publication or use (*can’t* mosaic)
* Non-obviousness 🡪 Whether the unimaginative skilled person could have taken all of the pieces and, using reasonable deduction, have arrived at the invention (*can* mosaic—consider the current state of the art; **can bring in extrinsic evidence and facts that were not specifically included in the claim itself**)

**NON-OBVIOUSNESS ANALYSIS** 🡪 **Overall test:** *would the person skilled in the relevant art and science, based on their skill and knowledge but without a scintilla of imagination, have been led to this invention?* **Follow the four-step approach from *Windsurfing*:**

1. **Identify the test person** (unimaginative skilled technician who is presumed to have knowledge of all publicly disclosed information around the world, but no spark of imagination)
	1. Identify the notional “person skilled in the art”
	2. Identify the relevant common general knowledge of that person
2. **Identify the inventive concept of the claim in question, or construe it**
3. **Identify what, if any, differences between the matter cited as forming part of the “state of the art” and the inventive concept of the claim as construed**
4. **Determine whether, without any knowledge of the alleged invention as claimed, these differences constitute steps which would have been obvious to the person skilled in the art, or whether they require any degree of invention**
* ***“Obvious to try” test*** 🡪 For a finding that an invention was *obvious to try*, there must be evidence to convince a judge on a BoP that it was more or less self-evidence to try to obtain the invention—a mere possibility that something might turn up is not enough (*Sanofi*)
	+ **Application:** The *obvious to try* test is appropriate in fields where advances are often won by experimentation (e.g. the pharmaceutical industry, where there may be many chemically-similar structures that can elicit different biological responses and offer the potential for significant therapeutic advances) (*Sanofi*)
	+ **Factors** (*Sanofi*)**:** In determining whether the invention was obvious to try, ask:
		- *Is it more or less self-evidence that what is being tried ought to work?*
		- *What is the extent, nature, and amount of effort req’d to carry out the invention?*
		- *Is there a motive provided in the prior art to find the solution the patent addresses?*
		- Look to the history of the invention
			* If the inventor reached the invention quickly, easily, directly, and relatively inexpensively in light of the prior art and common general knowledge = 🡩likelihood of a finding of obviousness
			* If time, money, and effort were expended in research looking for the result the invention ultimately provided before the inventor turned to search for it = 🡫likelihood of a finding of obviousness
			* If inventor went on a “wild goose chase” = 🡫likelihood of a finding of obviousness

# APPLICATION PROCESS

s27(1) grants the Commissioner the authority to grant a patent to an inventor if his application is in accordance with the *PA*. In essence, the requirements imposed in s27 reflect the ***bargain model*** that the Canadian patent system has adopted, hence the need for disclosure.

**TRUTHFULNESS 🡪** Under s53(1), a patent is **void** if any of the following apply:

* A material allegation in the petition is **untrue**
* The specifications and drawings contain more/less than is necessary for obtaining the end for which they purport to be made, and the addition/omission is wilfully made for the purpose of **misleading** (unless involuntary error: s53(2))

## ELEMENTS of a PATENT APPLICATION

* **PETITION** 🡪 Document that’s a formal request for a patent (list the applicant and inventor, give the name of the patent, and identify the patent agent)
* **ABSTRACT** 🡪 Short technical summary of the invention, generally used for searching purposes (include a statement of use of the invention)
* **SPECIFICATION** 🡪 Consists of a description and claims—the requirements are set out in s27(3)
	+ **Description:** This forms the bulk of the application and aims to describe the invention so that somebody skilled in the field could reproduce the invention just from reading the description and looking at the drawings
	+ **Claims (v important):** The legal basis for protection—each patent generally has several claims (e.g. *Harvard* patent application = 26); note that claims alone ≠ disclosure—they define the scope of the exclusive right being sought in s27(4)
	+ **STATUTORY REQUIREMENTS:**

s27(3) The specification of an invention must (*note: this requires* ***disclosure****—see test in Teva, below)*

* 1. **Correctly and fully describe** the invention and its operation or use as contemplated by the inventor
	2. **Set out clearly the steps** in a process or the method of constructing/making/compounding/using a machine, manufacture, or composition of matter **in such full, clear, concise, and exact terms** as to enable any person skilled in the art or science to which it pertains to make, construct, compound, or use it
	3. **If machine:** explain the principle of the machine and the best mode in which the inventor has contemplated the application of that principle
	4. **If process:** explain the necessary sequence, if any, of the various steps so as to distinguish the invention from others

s27(4) The 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

* **DRAWINGS** 🡪 These must be included if the invention can be illustrated so it becomes easier to understand the patent itself

**SUFFICIENT DISCLOSURE TEST** 🡪 *Teva* provides a test for determining whether the statutory disclosure requirements under s27(3) have been satisfied

1. **Define the nature of the invention**
* Since s36(1) requires that a patent contain one invention only, ensure that each claim isn’t construed as being a separate invention—only one invention can be claimed
1. **Determine whether the specification correctly and fully describes the invention**
* **Analysis:** Consider the specification *as a whole* to determine whether the disclosure is sufficient (*Teva*)
* **Ask:** *Does**the specification (claims + disclosure) define the “precise and exact extent” of the privilege being claimed so as to ensure that the public an, having only the specification, make the same use of the invention as the inventor?* (*Teva*)
* ***Teva*:** While Pfizer had the information to disclose the “certain especially preferred compounds”, it limited its description and chose a method of drafting that failed to clearly set out what the invention was

**REMEDIES for INSUFFICIENT DISCLOSURE** 🡪 Although s27 doesn’t specify a remedy for insufficient disclosure, the logical consequence of a failure to properly disclose an invention and how it works would be to **deem the patent invalid**

* **Rationale:** This flows from the *quid pro quo* principle underpinning the *PA*—if there’s no “quid” (proper disclosure), then there can be no “quo” (exclusive monopoly rights)

## FILING for a PATENT

* File patent application (must be in accordance w/s27(3))
* As per s10(2), the application becomes open to public inspection 18 months later
* Maintenance fees must be paid while the application is processing
* Examinations only occur upon request (s35(1))
* s34.1(1) permits any person to file with the commissioner **prior art**, which gives that person the ability to **protest** the granting of the patent
* If the commissioner is satisfied that an applicant isn’t entitled to be granted a patent as a matter of law, he may refuse the application and notify the applicant of the refusal and its accompanying reasons (s40)

# PATENT RIGHTS, TERMS, & OWNERSHIP

**TERM of PATENT**

* s44: Protection for the duration of the patent is **twenty years from the filing date** so long as maintenance fees are paid (s46)
	+ s46(2): If fees are not paid, the patent will be deemed to have expired
* s45(2): If a patent was filed before 1 October, 1989 then you get 17 years from the date the patent is issued (subject to s46)

**PATENT ASSIGNMENT** 🡪 An inventor can assign someone the right to obtain a patent via s49, but the assignment must be **signed** and **in writing** (s50)

**PATENT RIGHTS** 🡪 s42 provides that every patent granted shall contain the title of the invention, with reference to the specification, and should grant the patentee for the term of the patent **the exclusive right, privilege, and liberty of making, constructing, or using the invention and selling it to others to be used**

* These rights generally protect the business interests of the patentee (*Monsanto*)

## INFRINGEMENT of PATENT RIGHTS

In determining whether a patentee’s s42 rights have been infringed, *Monsanto* advises us to consider whether ∆, by his acts or conduct, **deprived the inventor**, in whole or in part, directly or indirectly, **of the advantage of the patented invention**. In essence, infringement occurs when ∆ manufactures, seeks, to use, or uses π’s patent. The **onus** of proving infringement lies on π (likely the patent-holder), and it is a **question of** **fact**.

**INFRINGEMENT of the RIGHT to “USE”** 🡪 In *Monsanto*, the court acknowledged that patent infringement cases that turn on “use” are inherently unusual and concluded that ∆ infringed s42 by “using” the patented cell and gene

1. **Starting proposition:** The main purpose of patent protection is to prevent others from depriving inventors (even in part or indirectly) of *full enjoyment* of the monopoly that the law intends to be theirs—thus, patent-holder is entitled to protection even in the absence of commercial exploitation (*Monsanto*)
2. **“Use”:** According to its ordinary dictionary meaning, “use” denotes utilization with a view to production or advantage (*Monsanto*)
* “Use” applies both to patented products and processes, and also to their output (but only if the patent plays an important part in production) (*Monsanto*)
* ∆ doesn’t have to use the patent for the exact purpose it was intended (*Dunlop*)—it just has to deprive the inventor of the full enjoyment of the patent
1. **TEST:** In determining whether ∆ has “used” a patented invention, consider whether the inventor has been deprived, in whole or in part, directly or indirectly, of the full enjoyment of the monopoly conferred by the patent (*Monsanto*)
2. **Commercial benefit:** If there is a commercial benefit to be derived from the invention, it belongs to the patent-holder (*Monsanto*)
3. **Patented piece of unpatented structure:** It is no bar to a finding of infringement that the patented object/process is a part of or composes a broader unpatented structure or process provided that the patented invention is ***significant*** or ***important***to ∆’s activities that involve the unpatented structure (*Monsanto*)
* *Monsanto*: The patented genes composed of the entire structure of the plant (analogy: Lego blocks)
1. **Possession:** The mere possession of a patented object or an object incorporating a patentable feature may constitute “use” of the object’s stand-by or insurance utility, and thus constitute infringement (*Monsanto*)
* **Rationale:** Exploitation of the stand-by utility of an invention uses it to advantage (e.g. fire extinguisher is “used” to provide the means for extinguishment should the need arise)
* Possession raises a **rebuttable presumption of use**: While the general rule is that ∆’s intention is irrelevant to a finding of infringement, intention becomes relevant where the defence invoked is *possession* *without use*—there, it would be relevant whether ∆ intended to exploit the invention should the need arise
	+ *British United Shoe*: ∆ rebutted the presumption by showing the patented machine it possessed had no use in its trade
	+ In the context of stand-by utility (outside of the commercial context), **possession + intention** of the possessor to use the patented object should the need arise amounts to use for the purposes of infringement (*Adair v Young*)

*Monsanto v Schmeiser*:

* **FACTS:** π held a patent for genetically modified **genes** and **cells** used to produce canola that would make it particularly resistant to Roundup pesticide. They licensed the use of their product out to farmers for a fee, and preserved the right to inspect the fields. ∆ didn’t pay π, but collected and planted seeds containing the patented gene (98% of his crop was made up of canola containing the gene).
* **ISSUE**: Did ∆ make or construct the patented gene? Did ∆, by his acts or conduct, deprive the inventor, in whole or in part, directly or indirectly, of the advantage of the patented invention? **INFRINGEMENT**—saving and planting the seed, then harvesting and selling the resultant plants, constituted “utilization” of the patented material within the meaning of s42
* **ANALYSIS**: The majority says that the onus of proving infringement lies on the plaintiff, Monsanto, and that it is a question of fact. This case deals with the ***use*** of a patent, and what the definition of use is.
* **MAJORITY:** ∆ deprived π of the full enjoyment of its monopoly over the patent **because he used the patent**—he possessed the patented product in his commercial nature, and could not raise evidence showing that he did not intend to use it to rebut the presumption of use (in reality he actually *did* use it anyway)
* **DISSENT:** Similar to majority in *Harvard*; argued that this didn’t constitute “use” because saying that there was use would necessitate that the patent protection extended to the actual plants and not just the modified genes/seeds, which goes against *Harvard*—the only protection π has through the patent is protection against other biotechnology companies using the gene to create the pesticide-resistant plants
	+ **The patent protection does not extend to the unpatentable object into which it is incorporated**—thus, ∆ is able to use the plants however he wants, because they are not patent-protected—they are simply a product of Canada’s *sui generis* system of protection for plants

## POST-GRANT ISSUES

Once granted, patent rights may be **lost**, **modified**, or **dedicated to the public**.

### LOSS of PATENT RIGHTS

**Impeachment:** As per s60(1), a patent or any claim in a patent may be declared invalid or void by the FC at the interest of the AG or any interested person

* **Interested person** = an actual/potential infringer; anyone dealing with the same or a similar kind of thing as ∆ and is in competition; a person who is using or who wants to use an invention in respect of which another person claims to have a patent (*Purcell*)

**New prior art:** Patent rights can be lost if new **prior art** comes to light after the patent is granted, and someone requests a **re-examination** of the patent by filing the prior art with the Commissioner and paying a prescribed fee (s48.1(1))

### MODIFICATION of PATENT RIGHTS

**Correction of errors:** Patentees can come forward to **correct errors** via s48(1) where, by mistake, accident, or inadvertence, and without any wilful intent to defraud or mislead the public, the patentee has:

1. Made too broad a specification (i.e. claimed more than what was invented)
2. Claimed a subject-matter to which he had no lawful right (i.e. not the true inventor)

Upon the payment of a prescribed fee, the patentee can make a disclaimer of such parts and narrow his claim accordingly

**Clerical errors:** s8 allows the Commissioner to correct clerical records in any patent instrument, which do not by themselves invalidate the instrument

**Where the patent is challenged:** When a patent is deemed defective because of **insufficient description and specification**, or if the **patentee claimed more/less than he had a right to**, but it seemed like it was an accident or mistake without fraud or deceptive intent, the Commissioner *may* cause a new patent with an amended description and specification to be used for the same invention for the same unexpired term

* This only occurs if the patent is surrendered within 4yrs of its date and upon the payment of a prescribed fee

### DEDICATION of PATENT RIGHTS to the PUBLIC

Once granted, patent rights can be dedicated the public (although there is no provision that provides for this in the *PA*)

* *Park-Davis*: The grant can be analogized to a gift and is irrevocable—the act of publishing a dedication shows intention and is a sufficient act of dedication

# INFRINGEMENT

While “infringement” isn’t expressly defined, the *PA* implies that it occurs when someone other than the patentee does something that is the exclusive right of the patentee to do under s42.

* **Infringing acts:** Making, constructing, using, or selling the invention (**Jx:** Actions must take place in Canada to be infringing)
* **LP:** 6yrs from the act of infringement (s55.01)

## DEFENCES to PATENT INFRINGEMENT

* Argue that the invention **doesn’t fall within the patent’s claim**
* As a defence, argue that the **patent isn’t valid** under s59 (although s43(2) requires evidence to rebut presumption of validity)
* Suggest that a **licence** was granted, so your act was therefore not infringing
* **Limitation period**—point out that the party didn’t bring the action within 6yrs of the infringing action: s55.01
* Raise an **exception** relating to regulatory approval (s55.2(1)): it’s not an infringement to make/construct/use/sell the patented invention solely for uses reasonably related to the development and submission of information required by any regulatory Canadian law
	+ Pharmaceutical companies frequently rely upon this provision when making a generic product prior to a patent’s expiry
* **Experimental use exceptions** (s55.2(6))—argue that the infringing act was done privately in a non-commercial context solely for the purpose of experimentation (although this provision has been narrowly interpreted)
	+ Experimentation in university labs doesn’t fall within the scope of s55.2(6)
* Argue that the term of the patent has **expired**
* **Existing uses defence** (s56)—this defence covers situations where a person has acquired a subject-matter defined in the claim before the *claim date*
	+ **E.g.** A makes an invention that B later patents 🡪 A can still use the invention, but can’t expand his use (if A built a machine before the claim date he could keep using it, but couldn’t sell any further machines)
* **Repair of the patented article**—as per *MacLennan*, a patentee is taken to have impliedly renounced his rights of using the article and selling it after it has been sold (not making)
* **Patent exhaustion**
	+ The patentee is taken to impliedly renounce his rights of using and selling the article after it has been sold
	+ Once the article is sold, it can be used by the purchasing party or sold onto another party = impliedly renounced
	+ This can be modified via contract
* **Abuse of rights/compulsory licence** (s65(1))—after 3yrs since the patent was granted, the AG or any interested person may apply to the Commissioner alleging that there has been an abuse of the patentee’s exclusive rights
	+ As per s65(2), patent rights are deemed to be abused in any of the following circumstances:
1. If the demand for the patented article in Canada isn’t ben met to an adequate extent on reasonable terms
2. If the trade or industry in Canada is **prejudiced**, and a licence should be granted in the **public interest**
3. If someone in the trade is unfairly prejudiced by the patentee
4. If the patent for a process involving the use of materials or for an invention relating to a substance produced by a process has been used by the patentee unfairly to prejudice the manufacture of sales of materials

## JURISDICTION

* As per s54, infringement actions can be brought either in the FC or the relevant provincial court
* The FC has exclusive Jx to impeach a patent, annul a patent, and have an entry in the registry varied (ss20, 60)

## REMEDIES

* **Damages**—s55(1)
	+ Damages include reasonable compensation for damage sustained as a result of acts committed by parties prior to the grant of the patent, but after the patent had been open to public inspection that would’ve been infringement had the acts occurred post-grant (s55(2))
	+ These represent the inventor’s loss, which may include lost profits from sales or lost royalty payments (*Monsanto*)
* **Accounting of profits** (alternative to damages)—s57(1)(b)
	+ Measured by the profits made by the infringer rather than those lost by the inventor (*Monsanto*)
	+ You’re only entitled to the portion of profits that is causally attributable to the invention (*Monsanto*)
* **Punitive damages**—awarded where a party’s conduct has been malicious, oppressive, and high-handed, or offends the court’s sense of decency, or represents a marked departure from ordinary standards of decent behaviour (*Whiten*)
* **inJx**—s57(1)(a) allows for orders enjoining a party from further use, manufacture, or sale of the subject-matter and “for and respecting inspection or account”
* Delivery **up or destruction** of the infringing products (these are equitable remedies, existing outside of the *PA*)
* See **remedies for insufficient disclosure** (*Teva*)