



Introduction and Theory of Patent Claims – Protection of Inventive Concepts

National Patent Drafting Course

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Theory of a Patent Claim

■ When an inventor is ready to file a patent application, the patent agent must decide --

- What has been invented?
 - Does the inventor know what he/she wants to protect?
- What types of claims can be drafted to this invention?
- What is commercially important about the invention?
- Is there any prior art that would prevent a patent?
 - What is the difference between the prior art and claimed invention?

Theory of a Patent Claim

- The Claims --
 - Represent the heart of any patent application
 - Define the scope of protection given to an invention
 - Are usually the first and sometimes the only parts of the patent application actually reviewed by the patent examiner

Theory of a Patent Claim

Patent Claims Have Multiple Functions and *Many Audiences*:

- Define the patent's scope of protection
- Represent the written approximation of the abstract inventive concept created by the inventor
- Set the boundaries of the invention
- Tell the world what has been invented

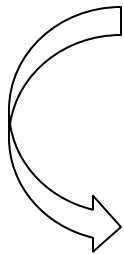
All in a Single Sentence!!

Three Legal Constructs

- “Invention” = mental construct inside the mind of the inventor, with no physical substance.
- An “embodiment” of the invention is a physical form of the invention.
- The “claims” protect at least one embodiment, **but the best patent claims protect the invention** (i.e. the inventor’s embodiment and all other possible embodiments of the invention).

Patent Claims Define the Scope of Protection

Claims are like fence post around a property



Claim Scope

Exclusionary Right!

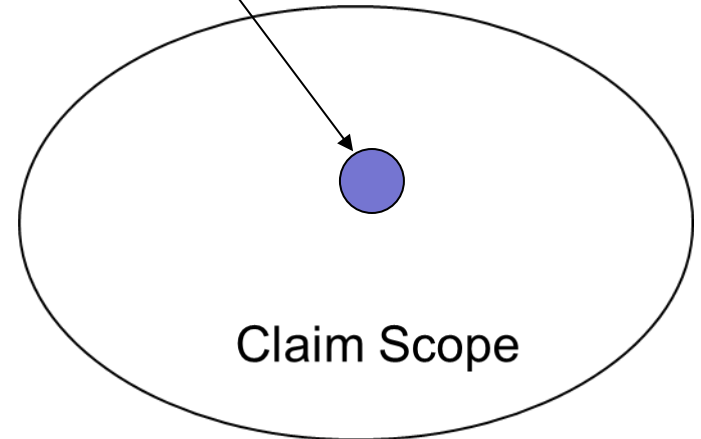


Claim Objective to Protect Entire Invention (Not Only a Single Embodiment)



Conception of Invention 

Embodiment

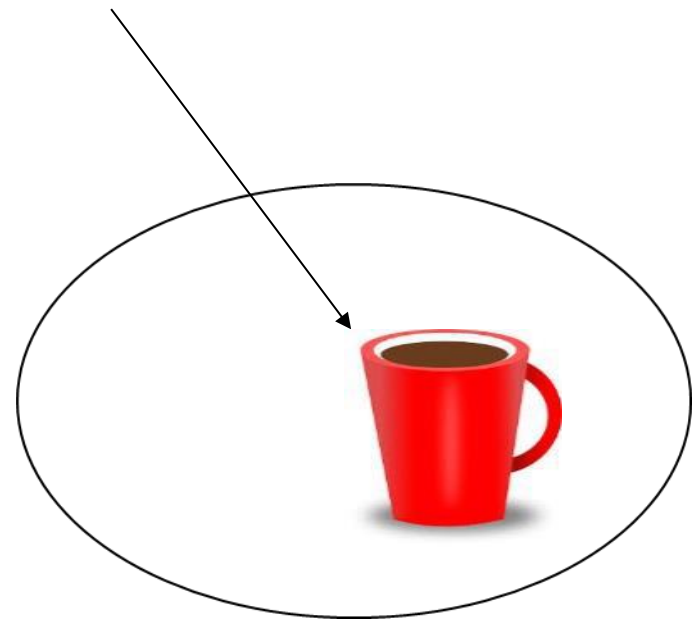


Claim Objective to Protect Entire Invention (Not Only a Single Embodiment)



Embodiment - red clay cup with a handle

Conceived of First Coffee
Cup with a Handle

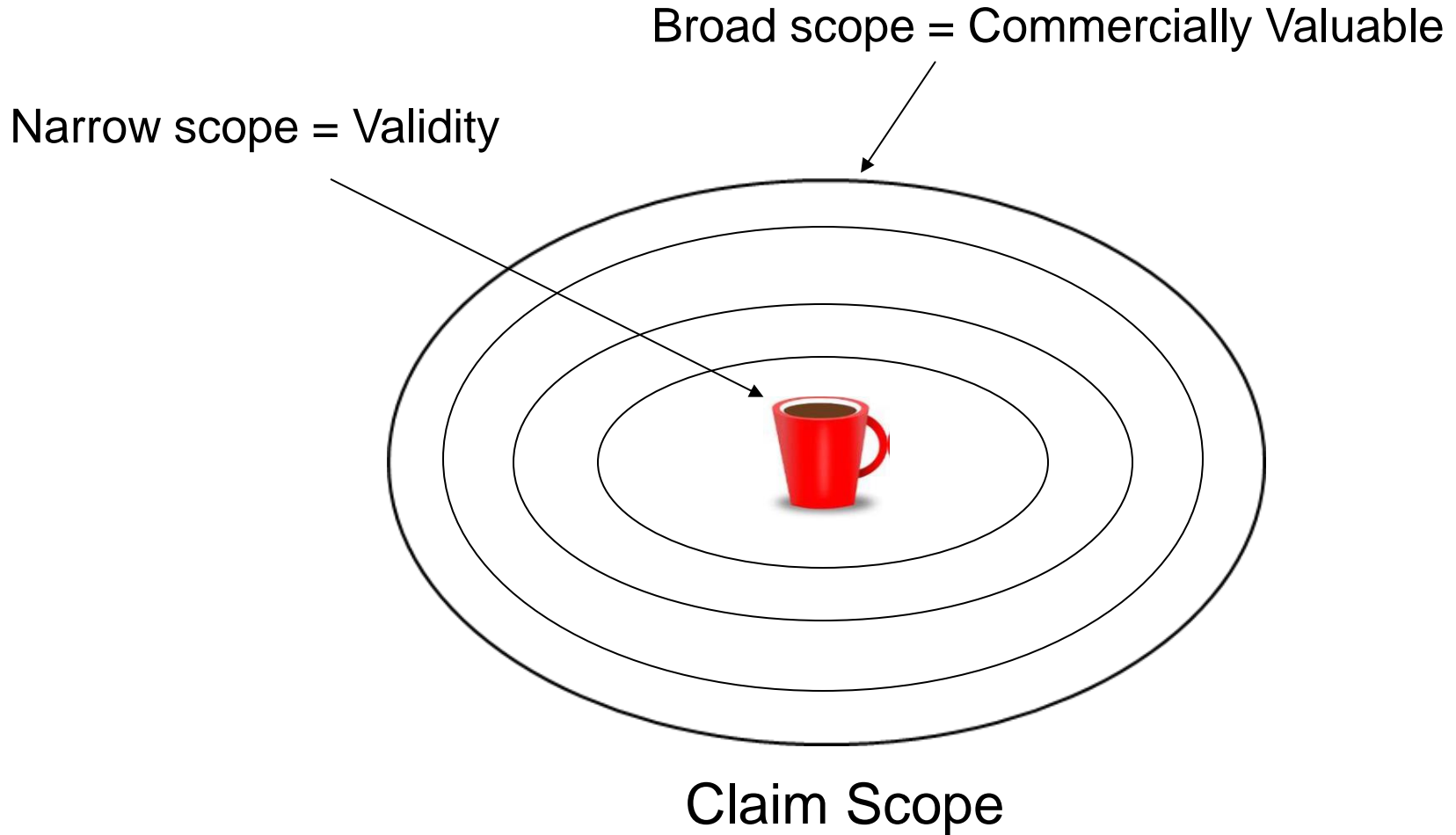


Need to Protect All Embodiments



Claim 1. A cup comprising a handle

Broad vs. Narrow Coverage



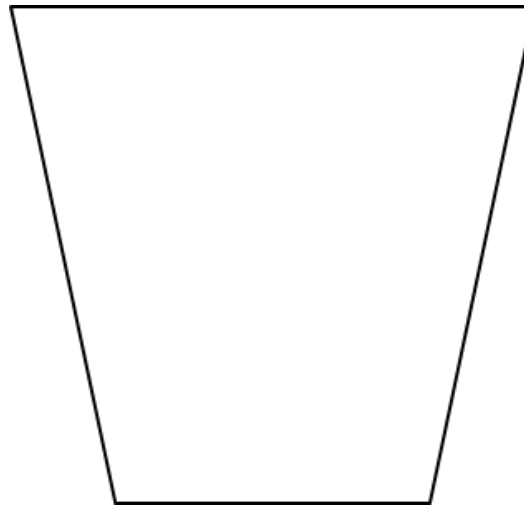
Scope of Claim Set Should Look Like an Inverse Pyramid



First Claim



Last Claim



Claim Scope

Broad



Narrow

Patent Claims – the Objective?

- In a single sentence:

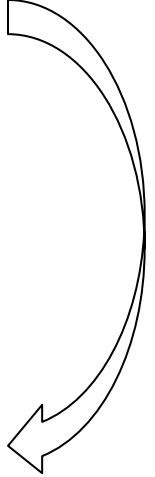
1. Define the scope of protection
2. Represent an advantage or solution to a problem
3. Avoid the “prior art”

- ...in a way that is clear, concise and self-contained

Quick Quiz 1

- Distinguish between an invention and an embodiment (of an invention)
- Which part of a patent defines the scope of protection that the patent provides?
- Why should a patent agent include both broad and narrow claims in a patent?

Types of Patent Claims

- Product – physical entity
 - Such as a device, article, system, chemical compound...
 - Method - activity
 - Method of manufacture a chemical compound...
 - Method of Use - activity with a product
 - Method of treating a disease using a chemical compound...
 - *Hybrid type of Claims – Product by Process (not recommended)*
 - A chemical compound made using the following process steps...
- 

Some Key Requirements for Patent Claims

- Scope of protection must be clear and concise
- The specification must support the claims
- Consistent terminology must be used throughout
- Claims may be amended during prosecution with some limitations. Amendments must also be supported

Patent Claim Format

- A patent claim has 3 parts:

1. Preamble
2. Transitional phrase
3. Body

- **A claim is written as a single sentence.**

Patent Claim Format

Preamble? Transitional Phrase? Body?

1. An apparatus, comprising:
a pencil;
an eraser attached to one end of the pencil;
and
a light attached to the center of the pencil.

antecedent basis



Patent Claim Format - The Preamble

Preamble

- Defines the category/type of invention
 - A semiconductor device ...
 - A composition ...
 - A method of making...
- Some jurisdictions give no patentable weight to the preamble. Others, like the U.S. do if it “breathes life and meaning into the claims.”
 - This usually means, make it specific!

Patent Claim Format - The transition

Transition

- Follows the preamble
- The specific terms will define the scope of invention by the Use of “Open” or “Closed” terms.
- “Open” – opens the claims to anything in addition to what is recited.
- “Closed” – limits the claims to only what’s recited.
- “Intermediate” – opens the claim to only those elements that do not change the novel aspects of the claims.
 - In affect, this is similar to an open term

Patent Claim Format - The transition

Transition Examples:

(Open) A cup **comprising** a handle

What affect does “comprising” have to this claim?

(Intermediate) A cup **consisting essentially of** a handle

What affect does “consisting essentially of” have to this claim?

(Closed) A cup **consisting of** a handle

What affect does “consisting of” have to this claim?

Patent Claim Format - The transition

Transition Examples:

(Open) A cup **comprising** a handle ...

The cup can include anything else, e.g., a lid



(Intermediate) A cup **consisting essentially of** a handle..

The cup can include anything that does not change the novel characteristics on the invention – probably a lid but not a mesh bottom.

(Closed) A cup **consisting of** a handle ...

The cup cannot include anything else but a handle

This is very limiting – try to avoid its use



Patent Claim Format - The Body

The Body of the Claim:

- Follows the transitional phrase
- Recites the limitations of the claim
- Explains how different limitations exist in relationship to one another
- A patent claim cannot typically be a mere list of parts but the elements must usually relate to each other in some way.

Quick Quiz 2

- Name the three parts of a claim and explain each
- What is the difference between an open-ended and a close-ended transitional phrase?
- What is correct antecedent basis in a claim?
- True or false: a patent claim may simply list the parts of the invention with no apparent relationship to each other described?

Q&A?

Thank You for your attention!

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Claim Sets

- Patent application must contain at least one independent claim
 - Multiple independent claims are ok
- Dependent claims include all the features of the claim from which they depend and something further
 - Narrower in scope than the claim they depend from
- Limit on numbers of claims is almost always for cost reasons

Claim Sets

Independent Claims

1. A cup comprising a handle.
2. A method of making a cup comprising a handle...

Dependent Claims

3. The cup of claim 1, further comprising a lid.
4. The method of claim 2, further comprising bonding the handle to the cup with an adhesive.

Multiple Dependent Claims

- Dependent on more than one claim in the alternative
 - Preamble refers to more than one claim
 - More common in European practice than in US practice – but acceptable in both.

Multiple-dependent claim example:

4. A device as recited in **claim 1 or 2**, further comprising an eraser attached at an end of the pencil.

Independent vs. Dependent Claims

INDEPENDENT CLAIMS	DEPENDENT CLAIMS
Capable of standing alone	Refers to an earlier claim (independent or dependent)
Starting claim for its group	Follows (depends from) another claim
Broadest claim of its group	“Fall-back” protection
Specifies all essential features of the invention	Not necessary as this is done in the independent claim

Quick Quiz 3

- A dependent claim may depend from any other claim (independent or dependent) – true or false?
- What is a multiple-dependent claim?
- Why should you include both broad and narrow claims in a patent application?

Q&A?

Thank You for your attention!

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