

UNITED STATES
PATENT AND TRADEMARK OFFICE





Claim drafting

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Pre-Conference Session
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Overview

- Questions to ask regarding your invention
- Laws and required parts of a claim
- Example Claims
- One possible approach to drafting claims

Review information

- Prior to writing claim(s) answer these questions:
- What is the invention?
- What are the elements that make up the invention?
- How do the elements relate to one another?
- Do you have more than one invention?
- Tangible: Apparatus, machine, composition
- Method: Making or Using
- Are there multiple embodiments of the same invention?

What the law says

- A nonprovisional patent application must have at least one claim particularly pointing out and distinctly defining the invention.
- A claim may be written in independent or dependent form.
- An independent claim is a standalone claim that contains all the limitations necessary to define an invention.
- A dependent claim must refer to a claim previously set forth and must further limit that claim.

What the MPEP says

- A claim in dependent form incorporates by reference all the limitations of the claim to which it refers.
- Claims must be fully supported and enabled by the disclosure
- Claims must be drafted as a single sentence
- Claims should be arranged in order of scope so the first claim presented is the broadest
- Consistent terminology should be used in both the patent disclosure and the claims

Claim(s)

- Defines the invention and what aspects are legally enforceable
- Must conform to the invention as set forth in the remainder of the specification
- Terms and phrases used in the claims must find clear support or antecedent basis in the description so that the meaning of the terms in the claims are clearly understood by reference to the description

Types of claims – invention categories

- Product - A claim that is directed to elements that can be:
 - Active (Device/Apparatus/Machine)
 - Non-active (Composition of Matter or Article of Manufacture)
 - Combination thereof
- Method (Process) - A claim that describes/ defines a series of acts or steps for performing a desired function or accomplishing an intended result

Types of claims - independent & dependent

- A claim may be written in independent or dependent form
- An independent claim refers to a stand alone claim that contains all the limitations necessary to define an invention
- A dependent claim refers to a previous claim and must add a further limitation to the previous claim
- A claim in dependent form incorporates by reference all the limitations of the claim to which it refers

Claim formalities

- Starts on a separate sheet with the Heading "The invention claimed is" (or the equivalent). "
- 1.5 or double spaced
- Each claim is a single sentence (begins with a capital letter and ends with a period)
- 3 independent claims; 20 claims total before excess fees are due
- Numbered consecutively in ascending order; original numbering preserved throughout prosecution

Patent claim structure

A claim in a utility application or patent has three (3) parts:

1. Preamble:

- Provides context for the claimed invention
- Language of a preamble may or may not limit the claimed invention

2. Transitional phrase:

- Establishes whether the claim is “open,” “closed” or “partially open”
- In other words, the degree to which a claim is limited to only those elements recited in the claim body

3. Claim body:

- Recites the limitations (structure and/or acts in clear, full, concise terms) necessary to define the invention

Three basic rules - #1 preamble

- Every claim needs a preamble, which is the introductory phrase in a claim. The general rule is that the preamble of a claim does not limit the scope of the claim, but try and stay away from functional language.
- Try: "A shovel..."
- Instead of: "A shovel for digging..."

Three basic rules - #2 transition

- Every claim needs a transition. The most common transitions are: "comprising" "consisting essentially of" and "consisting of."
- "Comprising" is by far the most common because it means the invention includes but is not limited to the elements identified in the claim.
- "Consisting essentially of" limits the scope of a claim to the specified materials or steps "and those that do not materially affect the basic and novel characteristic(s)" of the claimed invention.
- "Consisting of" is closed and means that the invention is limited to the elements identified in the claim.

Three basic rules - #3 antecedent basis

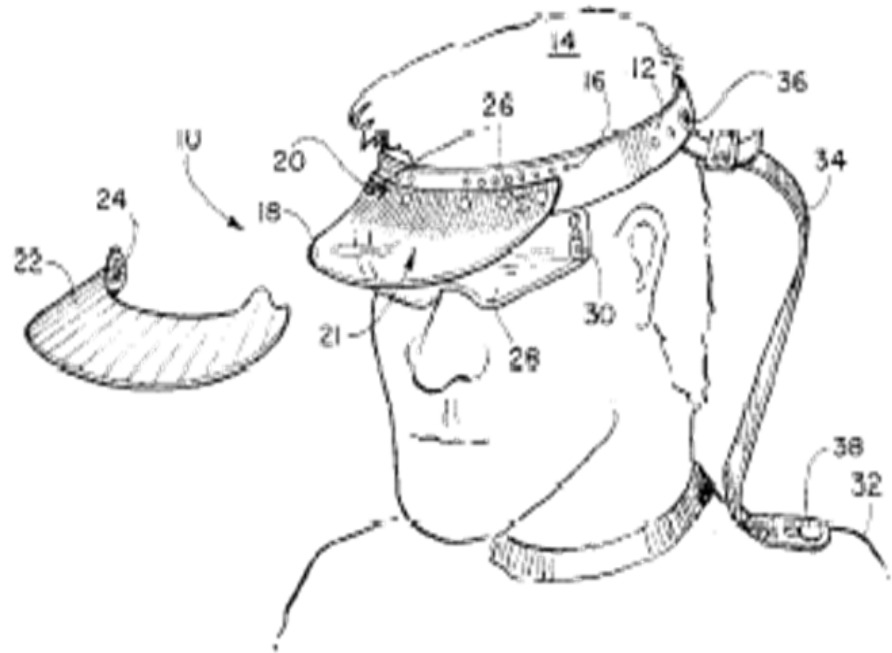
- The first time you introduce a limitation (e.g., an element, characteristic, internal reference, etc.) you **MUST** introduce it with either "a" or "an", as is grammatically appropriate. (e.g., Primary antecedent basis)
- Subsequently you refer to the already introduced limitation by either "said" or "the." (e.g., Secondary antecedent basis)

Example: antecedent basis issues

- A lack of clarity could arise where a claim refers to "said lever" or "the lever," where the claim contains no earlier recitation or limitation of a lever and where it would be unclear as to what element the limitation was making reference.
- Similarly, if two different levers are recited earlier in the claim, the recitation of "said lever" in the same or subsequent claim would be unclear where it is uncertain which of the two levers was intended.

Example of an independent device claim

- US Patent No. 6,009,555, titled
- "Multiple Component Headgear System."



Example of an independent device claim

1. A headgear apparatus comprising:
a headband member having a frontal portion;
a visor member removably secured to said frontal portion of said headband; and
an eye shield member removably secured to said frontal portion of said headband.

Examples of dependent device claims

2. A headgear apparatus as in claim 1, wherein **said** eye shield member is adjustable with respect to **said** headband member.

3. A headgear apparatus as in claim 1, wherein **said** visor member and **said** eye shield member are secured to **said** frontal portion of **said** headband member by **a** set of rivets.

Examples of dependent device claims (*cont.*)

4. A headgear apparatus as in claim 2, wherein said headband member is made of neoprene fabric.
5. A headgear apparatus as in claim 3, wherein said headband member comprises a continuous bead of sealant material.

Example of an independent method claim

US Patent No. 6,635,133

1. A method of making a ball, comprising:

forming an inner sphere by forming an outer shell with a fluid mass center;

forming a plurality of core parts;

arranging and joining the core parts around the inner sphere to form an assembled core;

molding a cover around the assembled core.

Examples of an dependent method claim

US Patent No. 6,635,133

2. The method of claim 1, further comprising molding nonplanar mating surfaces on the core parts, wherein the core parts comprises meshing the mating surfaces.
3. The method of claim 1, wherein forming the inner sphere comprises freezing a sphere of a fluid.
4. The method of claim 1, wherein the forming of the core parts comprises compression molding the core parts.

Wrapping it all together

- When you write a claim you want to introduce all of the components and characterizations of the components that are necessary for the invention to work and for it to be different than what is already in the public domain.
- Try something like this (letters represent either components or characteristics of the components):
 1. A - insert title - comprising: A, B and C.

Wrapping it all together (*cont.*)

2. The invention of claim 1 further comprising D, which is [insert connection/relation].
3. The invention of claim 2 further comprising E, which is [insert connection/relation].
4. The invention of claim 3 wherein D is [insert a specific characterization].
5. The invention of claim 4 wherein E is [insert specific characterization].

Wrapping it all together (*cont.*)

- Notice the dependent transitions.
- When you are adding a component you use "further comprising" and then explain how the component is connected to or relates with the components already introduced.
- When you are further describing something that has already been introduced you use "wherein."

One possible approach

- Focus on the inventive concept
 - What features set the invention apart from prior inventions?
- Identify fundamental elements
 - Omit unnecessary elements *unless* they are needed to distinguish over prior inventions
- Terminology and interrelationships
 - Select broad terms and identify their relationship carefully
- Claim review and revision
 - Remove unnecessary claim elements

Focus on the inventive concept

- A claimed invention must be **novel, non-obvious** and have a **utility**
- A Patent is not a marketing brochure
- Understand what the invention really is:
 - What are the advantages of the new design?
 - Is there more than one inventive feature?

Identify fundamental elements

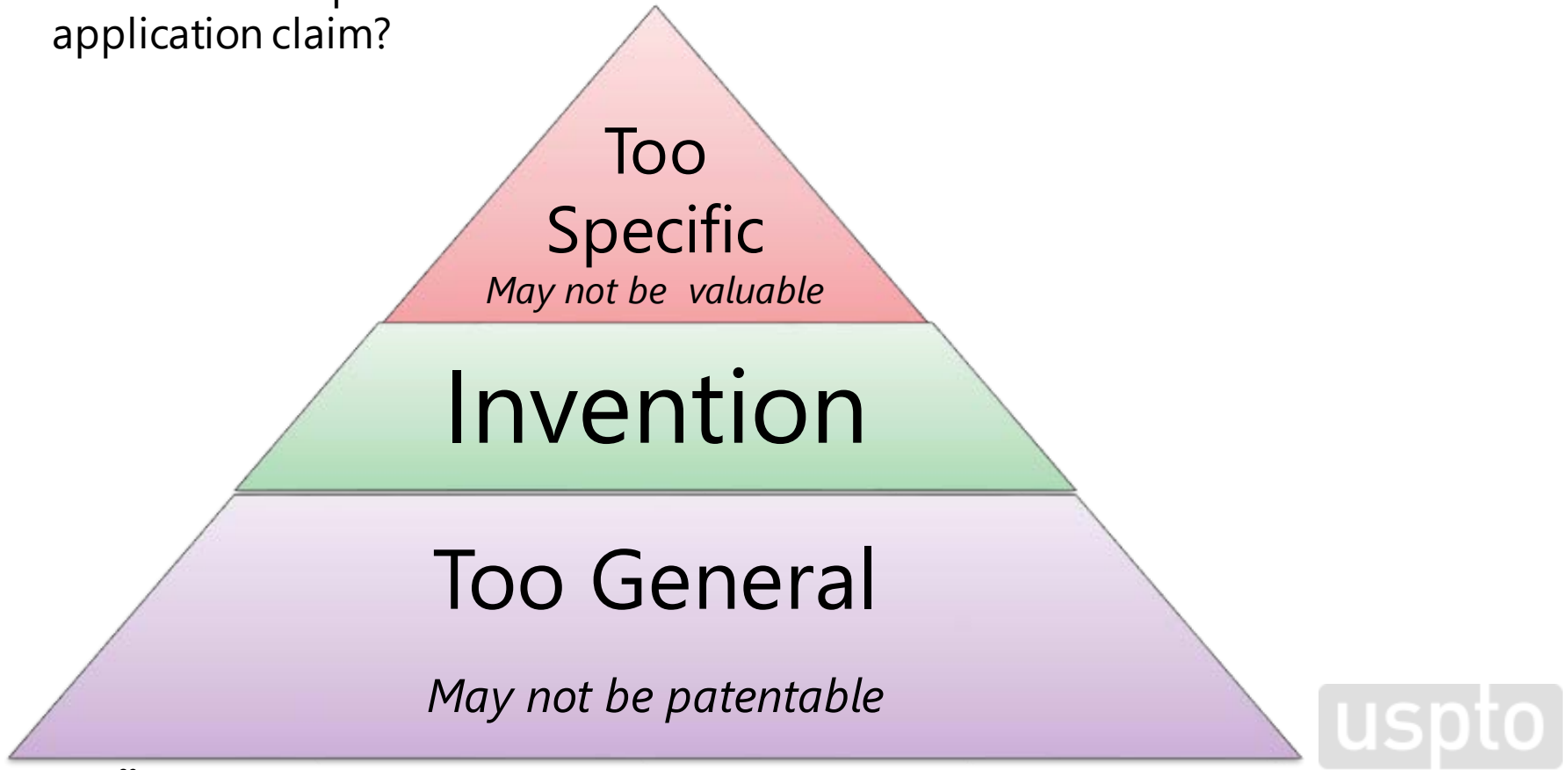
- Understand the disclosure of the prior inventions
 - What have competitors previously done?
 - Conduct a patentability search
- Define the potential claim elements
 - What is the target?
- Alternative Embodiments
 - The disclosure of prior inventions maybe helpful in developing alternative embodiments of your claimed invention

Claim drafting – costs vs coverage

- How much can you afford to spend on claims?
 - Independent in excess of 3 = \$115 per (micro entity)
 - Total claims in excess of 20 = \$25 per (micro entity)
 - Claim fees for small entity are double micro entity
 - Not just at time of filing, but during prosecution
- What is your desired Patent Scope end state?
 - Broadest possible valid claim? (longer prosecution)
 - Claims with range of claim scopes? (high claim costs)

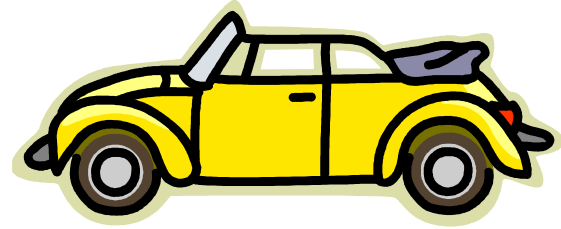
Claim review and revision

What should a patent application claim?

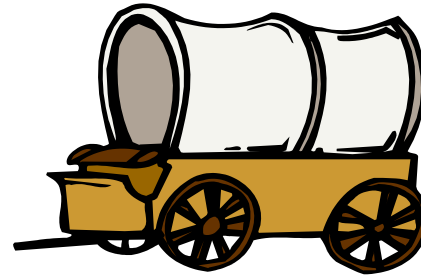


Claim is too broad

Claim 1. A vehicle comprising:
a frame body;
a first and second front wheel and
a first and second back wheel aligned
and spaced from the first and second
front wheel, each wheel rotatably
connected to the frame body;
a seat connected to the frame
body; and
a removable top portion made of
cloth connected to the frame body.



Invention



Prior Art

Claim May Be Overly Specific

Claim 1. A vehicle comprising:

a motor;

a yellow frame body including a plurality of hinged doors;

a first and second front wheel and a first and second back wheel and aligned and spaced from the first and second front wheel, each wheel rotatably connected to the frame body **and made of rubber;**

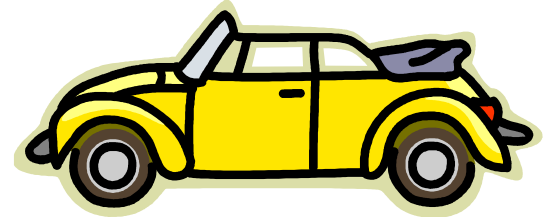
a seat connected to the frame body;

a plurality of glass windows connected to the frame body;

two red lights connected to the frame body;

two metal bumpers connected to the frame body; and

a removable top portion made of cloth.



Claim Drafting DOs

- ✓ Consider drafting your specification first and then your claims based on terms used in the specification.
- ✓ Think about what legal protection you want for your invention and tailor your claims accordingly.
- ✓ Look at the claims in patents issued in your field of technology.
- ✓ Particularly point out and distinctly claim the subject matter regarded as the invention.
- ✓ Review and reconcile both the specification and claims, making necessary additions and corrections so that the claim terms find support (antecedence) in the specification.
- ✓ Check for antecedent basis issues within the claims.
- ✓ Ensure that dependent claims further limit the claim from which they depend. (35 USC 112(d), MPEP 608.01(n))

Claim Drafting Cautions

- ✗ Do not use claims covering multiple statutory classes of invention (“A widget and method for using same...”).
- ✗ Do not use non-standard transitional phrases, which may raise questions of interpretation. (MPEP 2111.03)
- ✗ Do not use terms inconsistently between the claims and/or specification (e.g. visor, visor member, visor section, removable visor portion).
- ✗ Do not refer back to only a portion of another claim in a dependent claim (e.g., “The widget of the apparatus of claim 1...”).
- ✗ Do not use a dependent claim to remove/replace an element from a previously presented claim from which it depends. (e.g., The vehicle of claim 1 where the removable top portion is non-removable).

Claim Drafting Cautions

✗ Do not use functional language that is unconnected to the structure or steps that perform the function.

✗ Do not use terms in the claim that are unsupported by the specification.

✗ Do not use trademarks or tradenames in the claims, instead use generic terms, e.g., “hook and loop fastener” instead of Velcro.®

✗ Do not use language that merely suggests, makes optional and, thus, does not limit the claim.

✗ Avoid using negative limitations unless clearly supported by the written disclosure (specification and drawings).

Summary:

You should now have a better understanding of:

- The questions you need to answer before claiming your invention
- The format and structure of independent and dependent claims
- Possible methods of drafting your claims



Thank you!

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