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The background of the slide is a light gray technical drawing of a mechanical assembly, possibly a piston or a similar component. It features various parts, surfaces, and dimensions, with numbers like 80, 84, 86, 82, 40, 36, 22, 20, 34, 32, 52, 50, and 54 scattered throughout. The drawing is rendered in a clean, line-art style.

The Path to a Patent, Part 4: Utility patent application claim drafting workshop

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Objectives

- **Brief review of a patent application specification:**
 - Written description and enablement requirements
 - Specification components
 - Continuity of subject matter: provisional to nonprovisional
- **Claims and claim drafting**
 - Form of claims
 - Claim parts
 - Claim hierarchy
 - Antecedent basis
- **Claim examples**

Brief review of the specification

- 35 USC 112 (1)/(a):
 - The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor or joint inventor of carrying out the invention.
- **Provisional and nonprovisional components:**
 - Abstract, drawings (if necessary), description
 - Must describe completely a specific embodiment of the process, machine, manufacture, composition of matter or improvement.
- **Nonprovisional components:**
 - Same as provisional and
 - At least one claim is presented for consideration on the merits

Provisional v. Nonprovisional

- **Provisional**
 - Automatically abandoned after one year period
 - No claims required
 - Written disclosure must meet same requirements as nonprovisional
- **Nonprovisional**
 - At least one claim required
 - Written disclosure must meet requirements of 35 USC 112 first paragraph (pre AIA), or 35 USC 112(a) paragraph (post AIA)
 - Examined for patentability, can result in a patent
 - Continuity is key to retaining the benefit of the filing date of the earlier-filed provisional application

The specification defines the invention

- The claims set forth the protectable intellectual border of the invention (metes and bounds).
- If it is recited in the claims, then it **absolutely** needs to be described, enabled, and defined by the instant specification.
- The description should provide clear support for all terms used in the claims so that their meaning may be ascertainable by reference to the description.
- Applicants may serve as their own “lexicographer.”
- Claim terms must be given their “plain meaning,” unless it is inconsistent with the specification.
- Broadest reasonable interpretation in view of the specification.

Brainstorming the invention

- Some questions to consider before drafting claims:
 - What is the invention?
 - Tangible: composition, apparatus, machine
 - Method: making, doing (e.g., treating), or using
 - If “tangible,” what are the pieces that compose the invention and how do they interrelate?
 - Multiple inventions (e.g., composition and method)?
 - Multiple versions of each invention?

Strategic approach

- What are the goals to be accomplished?
- Obtain the broadest, valid claim(s) possible
- Obtain claims with a variety of type and scope
- Not just at the time of filing, but during prosecution; goals and direction of invention can change as prosecution proceeds
- What is your claims budget?
- Independent claims in excess of 3 = \$120/claim*
- Each claim in excess of 20 = \$25/claim*



(*) – these are the fees for micro-entity status

Guidance for clear claim construction

- It can be helpful to first draft the claims:
 - Decide which terms to use and ensure they are captured consistently in the specification
 - Determine which terms need more detailed definition or clarity in the specification
 - Description is also provided as drawings and examples
 - Be wary of indefinite language (i.e., terms of degree, “exemplary” language, etc.)
 - Ensure that the claims are “commensurate in scope”
- Look to U.S. patents as examples of how to draft

Claim formatting

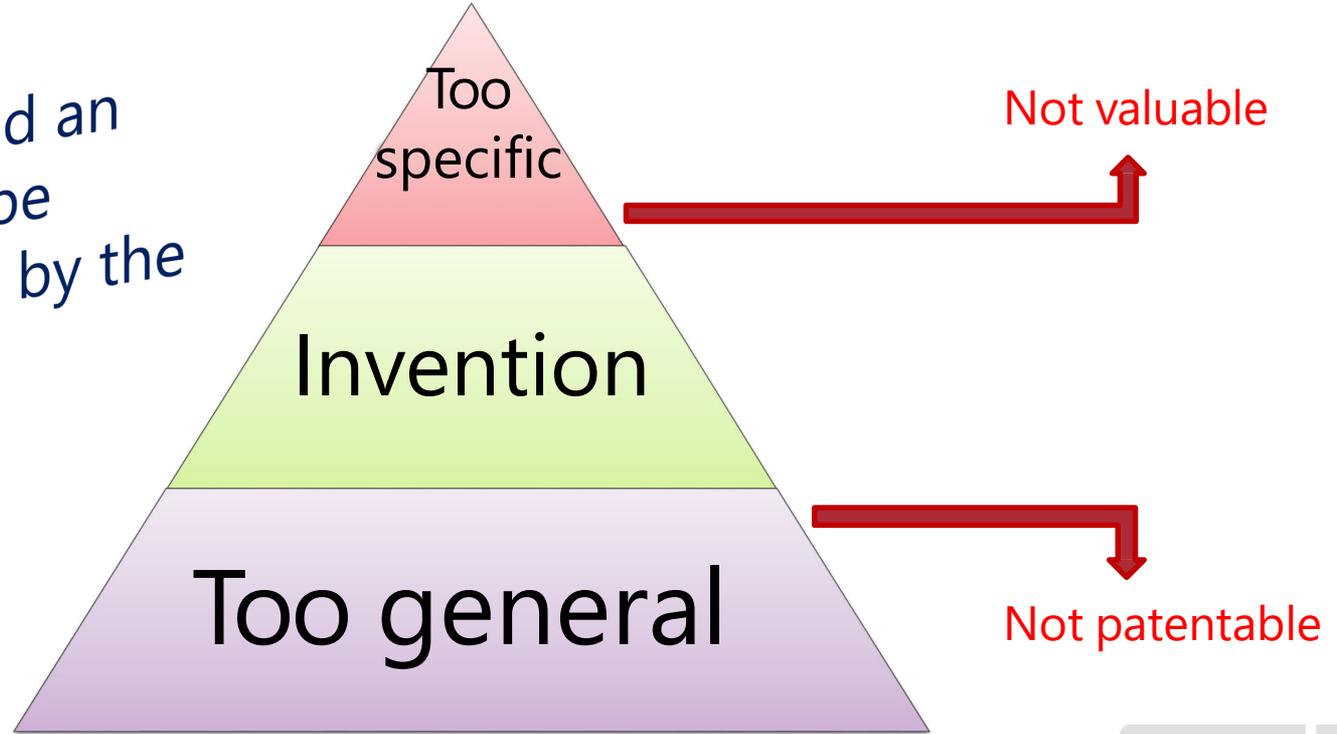
- Starts on a separate sheet with the Heading "Claim Listing"
- 1.5 or double spaced
- Each claim is a single sentence (begins with a capital letter and ends with a period)
- Three independent claims; 20 claims total before excess fees are due
- Numbered consecutively in ascending order; original numbering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

U.S. patent claim requirements

- A nonprovisional patent application **must** have at least one claim which particularly points out and distinctly defines the invention.
- Claims are written in independent or dependent form.
- A dependent claim necessarily incorporates by reference all of the limitations of the claim to which it refers.
- A dependent claim **must** refer to a preceding claim and **must** further limit the claimed invention.

Claims

How should an invention be delineated by the claims?



Claim drafting

- A utility application or patent claim will have three main parts:
 1. A preamble or introduction;
 2. A transitional phrase, such as:
 - “comprising” (open);
 - “consisting of” (closed)
 3. A body “positively reciting” the elements of the invention.

Example claim

A shovel comprising: a handle; and a blade having a point thereon.

A shovel

Preamble



comprising:

Transitional
phrase



a handle; and
a blade having a point thereon.

Body



Part 1: The preamble

- Every claim contains a preamble:
 - “A shovel...” (independent claim)
 - “The shovel of claim 1...” (dependent claim)
- Carefully consider the language recited in the preamble
 - Effect is determined on a case-by-case basis
 - The preamble is read in the context of the entire claim
 - Recitation of structural limitation or one of intended use/purpose?
- Examples:
 - “A topically-applied composition...” vs. “An ocular composition...”
 - “A shovel...” vs. “A shovel for digging...”

Part 2: Transitional phrase

- Transitional phrases set forth the scope of the claimed invention
- The two most commonly used are:
 - “comprising” and variants (i.e., “comprises,” “containing,” etc.)
 - Most commonly used
 - Open-ended and not exclusive to unclaimed elements
 - Familiarly understood as “including, but not limited to”
 - “consisting of” or “consists of”
 - Close-ended and very exclusive
 - Claim elements are limited to those which are recited
- Claims may use both phrases and repeatedly

Part 3: The body

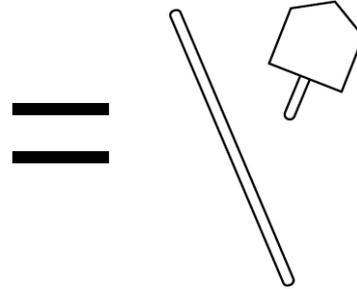
- Most linguistically complex part of the claim:
 - Must clearly set forth those elements, steps, and/or relationships which are considered to be the claimed invention
 - Terms/phrases used in the claims must have antecedent basis (be supported by) in the specification
 - Supported terms/phrases must be described/defined in the specification so that their meaning may be ascertained by reference to the specification
 - Limitations should conform to the invention as set forth in the remainder of the specification

Part 3: The body (cont.)

- Introduction of a claimed element:
 - Antecedent basis is referencing within a claim and between claims (not limited to referencing between the claims and the specification)
 - Must be first preceded by the **indefinite** article “a” or “an,” or by other such appropriate terminology (i.e., “at least one...,” “a plurality of...,” etc.)
 - Subsequent references to the limitation should be preceded by the **definite** article “the” or “said,” (i.e., “the at least one...,” “the plurality of...,” etc.)
 - Subsequent references to limitations can occur in both independent and dependent claims
 - Additional common cue words: “wherein” or “whereby”

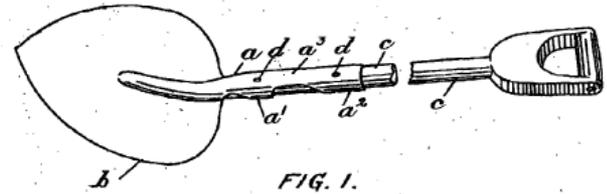
Iterative drafting of claims

1. A shovel, comprising:
a handle; and
a blade having a point thereon.



Iterative drafting of claims

1. A shovel, comprising:
a handle and a blade;
wherein said blade is
connected to said handle.



Example: Antecedent basis issue

1. A shovel, comprising:

- a.) a handle and
- b.) a blade;
- wherein said handle has a first end and a second end; wherein said blade is connected to the end of the handle; and wherein the grip is made of a synthetic material.

Example claim

1. A shovel, comprising:

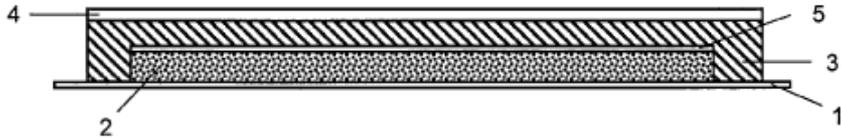
a.) a handle and

b.) a blade;

wherein said handle has a first end and a second end; and

wherein said blade is connected to the first end of the handle.

Example of an Independent Claim



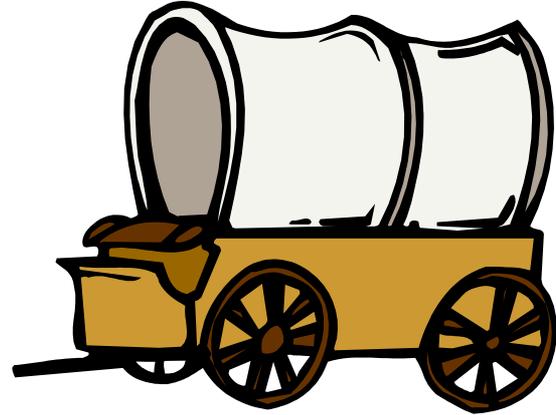
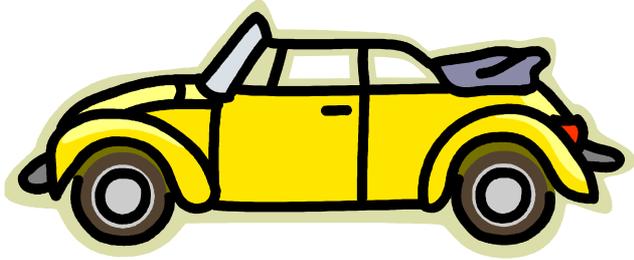
1. A transdermal patch comprising:
 - **a removable protective layer,**
 - **a matrix layer consisting of a single layer which contains a physiologically effective amount of buprenorphine or pharmaceutically acceptable salts thereof,**
 - **an adhesive layer, and**
 - **a cover layer,**
 - wherein ***the*** cover layer is at least partially bi-elastic and ***the*** adhesive layer comprises an acrylic copolymer having hydroxyl functional groups, and wherein ***the*** matrix layer is in contact with ***the*** removable protective layer.

Figure 2: Protective layer (1), Matrix layer (2), adhesive layer (3), cover layer (4), and separating layer (5)

Examples of dependent claims

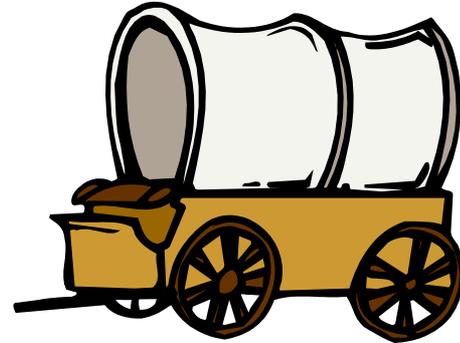
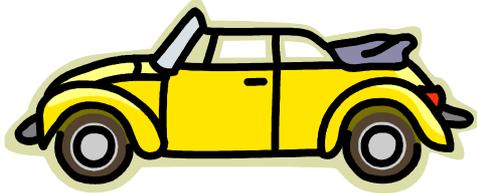
- 2. **The transdermal patch according to claim 1**, wherein **the** matrix layer is arranged to be in contact with **the** protective layer and in contact with **the** adhesive layer but not in contact with **the** cover layer, and **the** adhesive layer is arranged to be in contact with **the** cover layer and is optionally in contact with **the** protective layer.
- 3. **The transdermal patch according to claim 1**, wherein **a** separating layer is between **the** matrix layer and **the** adhesive layer.

Claim is too broad



Claim 1. A vehicle comprising:
a frame;
a first and second front wheel; and
a first and second rear wheel aligned and spaced behind
the first and second front wheel;
a seat connected to the frame; and
a removable top portion made of cloth;
wherein each wheel rotates and is connected to the frame.

Claim may be overly specific



- Claim 1. A vehicle comprising:
- a motor;
 - a yellow frame including a plurality of hinged doors;
 - a first and second front wheel;
 - a first and second rear wheel aligned and spaced behind the first and second front wheel;
 - a seat connected to the frame;
 - a plurality of glass windows connected to the frame;
 - two red lights connected to the frame;
 - two metal bumpers connected to the frame; and
 - a removable top portion made of cloth;
- wherein each wheel is made of rubber.

Claim drafting DOs

- ✓ Particularly point out and distinctly claim the subject matter regarded as the invention
- ✓ Consider drafting your claims first and then your specification based on terms used in the claims
- ✓ Review both to make necessary additions and corrections so that the claim terms find support in the specification
- ✓ Look at the claims in patents issued in your field of technology
- ✓ Ensure each term has proper antecedent basis
- ✓ Think about what legal protection you need for your invention and tailor your claims accordingly

Claim drafting cautions

- ✗ Do not use claims covering two statutory classes of invention (“A widget and method for using same...”)
- ✗ Do not use terms inconsistently between the claims and/or specification (e.g. visor, visor member, visor section; removable visor portion)
- ✗ Do not write multi-sentence claims
- ✗ 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 “replace” elements from another claim within a dependent claim

Outreach services

- Walk-in services to obtain information about the USPTO
- Workstations for searching patents and trademarks
- A regional focus for workshops, just-in-time training, conferences and roundtables (at all levels)
- A hearing room to host Patent Trial and Appeal Board (PTAB) and Trademark Trial and Appeal Board (TTAB) proceedings—including remote access to hearings taking place in Alexandria or elsewhere
- Interview rooms to connect applicants to patent examiners working in Alexandria and across the country
- Remote training capability from local experts to all patent examiners working in their specialized technical fields
- Office hours for strategic partners like Small Business Development Centers and the Export Assistance Center

Resources

Helpline: 1-800-PTO-9199

Utility Patent Application Guide	www.uspto.gov/patents/resources/types/utility.jsp
Patent Process	www.uspto.gov/patents/process
Patent Search Guide	www.uspto.gov/patents/process/search
Examiner Training Materials	https://www.uspto.gov/learning-and-resources/examiner-training-materials
IP Awareness Assessment Tool	www.uspto.gov/inventors/assessment
Inventor and Entrepreneur Resources	www.uspto.gov/inventors
Pro Se Assistance	www.uspto.gov/patents-getting-started/using-legal-services/pro-se-assistance-program
Micro Entity Limit	www.uspto.gov/PatentMicroentity
Patent Pro Bono help and video	www.uspto.gov/inventors/proseprobono
First Inventor to File	www.uspto.gov/aia_implementation/patents.jsp#heading-10
Law School Clinic Program	www.uspto.gov/learning-and-resources/ip-policy/public-information-about-practitioners/law-school-clinic-1

Office of Innovation Development

- In-person assistance (by appointment) for pro se applicants
- Assistance hotline: 1-866-767-3848
- Patent email support: innovationdevelopment@uspto.gov
- PTRC partnership for patent education courses
- Inventor outreach
 - Independent inventor conferences
 - Education for inventor organizations
- www.uspto.gov/inventors

Upcoming programs

- Learn how to protect your IP abroad
 - Friday, November 20, 11 a.m.–1 p.m. MT
- The Path to a Patent, Part V: Learn how to file your application using EFS-Web
 - Friday, December 4, 11 a.m.–1 p.m. MT
- Maintaining your federal trademark registration
 - Tuesday, December 8, 1–2 p.m., MT
- The Path to a Patent, Part VI: Patent application post-filing procedures
 - Friday, December 11, 11 a.m.–1 p.m. MT



Thank you!



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