



The Path to a Patent, Part 4:

Utility Patent Application Claim Drafting Workshop

Objectives

Brief review of a patent application specification:

- Written description and enablement requirements
- Specification components
- Continuity of subject matter: provisional to non-provisional

Claims and claim drafting

- Form of claims
- Claim parts
- Claim hierarchy
- Antecedent basis

Claim examples

Provisional v. Non- provisional

Provisional

Automatically abandoned after one year period
No claims required
Written disclosure must meet same requirements as non-provisional

Non-provisional

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

Provisional v. Non-provisional

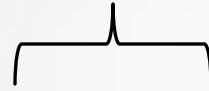
12 months



"Public"

Provisional

12 months



Non-Provisional

PCT *18 months*



National Phase

"Public"



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 non-provisional components:
 - Abstract, drawings (if necessary), description
 - At least one specific embodiment or example
- Non-provisional components:
 - Same as provisional and
 - At least one claim is presented for consideration on the merits

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

Questions to consider before drafting claims:

1. What is the invention?
 - a. Tangible: composition, apparatus, machine
 - b. Method: making, doing (e.g., treating), or using
2. If “tangible,” what are the pieces that compose the invention and how do they interrelate?
3. Multiple inventions (e.g., composition and method)?
4. 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 draft the claims first:

- 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.

uspto UNITED STATES PATENT AND TRADEMARK OFFICE

About Us | Jobs | Contact Us | MyUSPTO

Search uspto.gov

Patents | Trademarks | IP Policy | Learning and Resources | Find It Fast

Patent basics

- > Patent process step-by-step
- > Search patents
- > Frequently asked questions (FAQs)
- > Procedures (MPEP) and guidance

Apply for a patent

- > Get started filing online
- > Register and easier filing resources
- > Check application status
- > Filing fees and payment
- > Forms

Application assistance

- > Contacts for application questions
- > Advanced application resolution
- > Petitions
- > Appeals and proceedings (PTAB)

Maintain your patent

- > Maintenance fees and payment
- > Calculate expiration date
- > Reinstate an expired patent
- > Ownership change and search

Helpful resources

- > CARES Act deadline waivers
- > International patent filing
- > Examiner interview requests
- > In-person help near you
- > Free assistance programs

Independent inventors

- > File a patent application on your own
- > Legal assistance and resources
- > Free resources in your state
- > Inventors Assistance Center

Search (PatFT) | File online (EFS-Web) | Status (PAIR) | Fees

Google
Patents

Search and read the full text of patents from around the world.

Include non-patent literature (Google Scholar)



- Home
- Quick
- Advanced
- Pat Num
- Help
- Next List
- Bottom
- View Cart

Searching US Patent Collection...

Results of Search in US Patent Collection db for:
AN/apple AND case: 16712 patents.
Hits 1 through 50 out of 16712

Next 50 Hits

Jump To

Refine Search

PAT. NO.	Title
1 D926,771	Housing module for an electronic device
2 D926,750	Electronic device
3 D926,739	Case for an electronic device
4 11,083,047	5G mmWave wireless remote radio head system
5 11,083,019	Partial subframe transmission in licensed assisted access
6 11,083,003	PDCCH design for narrowband deployment
7 11,082,950	User equipment (UE) and method of sidelink data communication in fifth generation (5G) new radio (NR) things networks
8 11,082,892	Methods for transmitting and receiving data in 5G NR device based on data/service tagging from application processor
9 11,082,854	Signal validation for secure ranging
10 11,082,809	Many-to-many communication techniques for mobile devices
11 11,082,773	Context-aware voice guidance
12 11,082,602	Additive coil structure for voice coil motor actuator
13 11,082,299	Managing virtual links in a network service instance
14 11,081,911	Enhanced wireless power transfer
15 11,081,070	Backlight systems and methods for electronic device displays
16 11,081,032	Display circuitry and method to utilize segmented resistors for optimizing front of screen performance



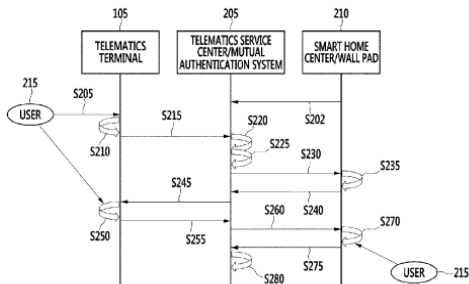
US009538379B2

(12) **United States Patent**
Yu

(10) **Patent No.:** US 9,538,379 B2
(45) **Date of Patent:** Jan. 3, 2017

- (54) **METHOD FOR AUTHENTICATION BETWEEN SMART CAR AND SMART HOME AND TELEMATICS SERVICE CENTER THEREFOR** (58) **Field of Classification Search**
CPC H04M 9/00
USPC 455/457
See application file for complete search history.
- (71) Applicant: **Hyundai Motor Company**, Seoul (KR) (56) **References Cited**
U.S. PATENT DOCUMENTS
- (72) Inventor: **Kanghi Yu**, Gyeonggi-do (KR) 9,092,822 B2* 7/2015 Harris G06Q 30/00
(73) Assignee: **Hyundai Motor Company**, Seoul (KR) 2007/0156881 A1* 7/2007 Now G07C 5/008
709/223
- (*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.
- (21) Appl. No.: **14/740,740**
- (22) Filed: **Jun. 16, 2015**
- (65) **Prior Publication Data**
US 2016/0174073 A1 Jun. 16, 2016
- (30) **Foreign Application Priority Data**
Dec. 11, 2014 (KR) 10-2014-0178379
- (51) **Int. Cl.**
H04M 9/00 (2006.01)
H04W 12/06 (2009.01)
H04W 60/00 (2009.01)
H04W 4/02 (2009.01)
H04L 29/06 (2006.01)
H04L 12/28 (2006.01)
H04L 29/08 (2006.01)
- (52) **U.S. Cl.**
CPC **H04W 12/06** (2013.01); **H04L 63/0869** (2013.01); **H04L 63/0884** (2013.01); **H04W 4/02** (2013.01); **H04W 60/00** (2013.01); **H04L 12/28** (2013.01); **H04L 67/12** (2013.01)

14 Claims, 2 Drawing Sheets

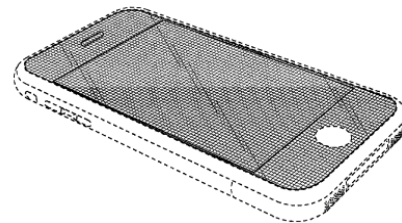


US00D618677S

(12) **United States Design Patent**
Andre et al.

(10) **Patent No.:** US D618,677 S
(45) **Date of Patent:** ** *Jun. 29, 2010

- (54) **ELECTRONIC DEVICE** (56) **References Cited**
(75) Inventors: **Bartley K. Andre**, Menlo Park, CA (US); **Daniel J. Coster**, San Francisco, CA (US); **Daniele De Iulio**, San Francisco, CA (US); **Richard P. Howarth**, San Francisco, CA (US); **Jonathan P. Ive**, San Francisco, CA (US); **Steve Jobs**, Palo Alto, CA (US); **Duncan Robert Kerr**, San Francisco, CA (US); **Shin Nishibori**, Portola Valley, CA (US); **Matthew Dean Rohrbach**, San Francisco, CA (US); **Douglas B. Satzger**, Menlo Park, CA (US); **Calvin Q. Seid**, Palo Alto, CA (US); **Christopher J. Stringer**, Woodside, CA (US); **Eugene Antony Whang**, San Francisco, CA (US); **Rico Zorkendorfer**, San Francisco, CA (US)
- (73) Assignee: **Apple Inc.**, Cupertino, CA (US)
- (*) Notice: This patent is subject to a terminal disclaimer.
- (**) Term: **14 Years**
- (21) Appl. No.: **29/328,018**
- (22) Filed: **Nov. 18, 2008**
- Related U.S. Application Data**
- (60) Division of application No. 29/282,834, filed on Jul. 30, 2007, now Pat. No. Des. 581,922, which is a continuation of application No. 29/270,888, filed on Jan. 5, 2007, now Pat. No. Des. 558,758.
- (51) **LOC (9) Cl.** **D14-02**
- (52) **U.S. Cl.** **D14/341; D14/248; D14/203.7**
- (58) **Field of Classification Search** **D14/341; D14/342, 343, 344, 345, 346, 347, 420, 426, D14/427, 432, 439, 440, 441, 448, 496, 125, D14/137, 129, 130, 138, 250, 389, 147, 218, D14/247, 248, 156; D10/65, 104; D13/168; D18/6, 7; D21/329, 686; 455/90.3, 556.1, 455/56.2, 575.1, 575.3, 575.4, 379/433.01, 379/433.04, 433.06, 433.07; 361/814, 341/22; 345/169, 173; D6/596, 601, 605**
- See application file for complete search history.
- U.S. Appl. No. 29/282,831, Andre et al., Electronic Device, filed Jul. 30, 2007.
- (Continued)
FOREIGN PATENT DOCUMENTS
EM 000569157-0005 5/2006
(Continued)
OTHER PUBLICATIONS
U.S. Appl. No. 29/282,831, Andre et al., Electronic Device, filed Jul. 30, 2007.
(Continued)
Primary Examiner—Cathron C Brooks
Assistant Examiner—Angela J Lee
(74) *Attorney, Agent, or Firm*—Sterne, Kessler, Goldstein & Fox PLLC
- CLAIM**
- The ornamental design of an electronic device, as shown and described.
- DESCRIPTION**
- FIG. 1 is a front perspective view of an electronic device in accordance with the present invention;
FIG. 2 is a rear perspective view thereof;
FIG. 3 is a front view thereof;
FIG. 4 is a rear view thereof;
FIG. 5 is a top view thereof;
FIG. 6 is bottom view thereof;
FIG. 7 is a left side view thereof; and
FIG. 8 is a right side view thereof.
- The claimed surface of the electronic device is illustrated with the color designation for the color black.
- The electronic device is not limited to the scale shown herein. As indicated in the title, the article of manufacture to which the ornamental design has been applied is an electronic device, media player (e.g., music, video and/or game player), media storage device, a personal digital assistant, a communication device (e.g., cellular phone), a novelty item or toy.
- 1 Claim, 2 Drawing Sheets**

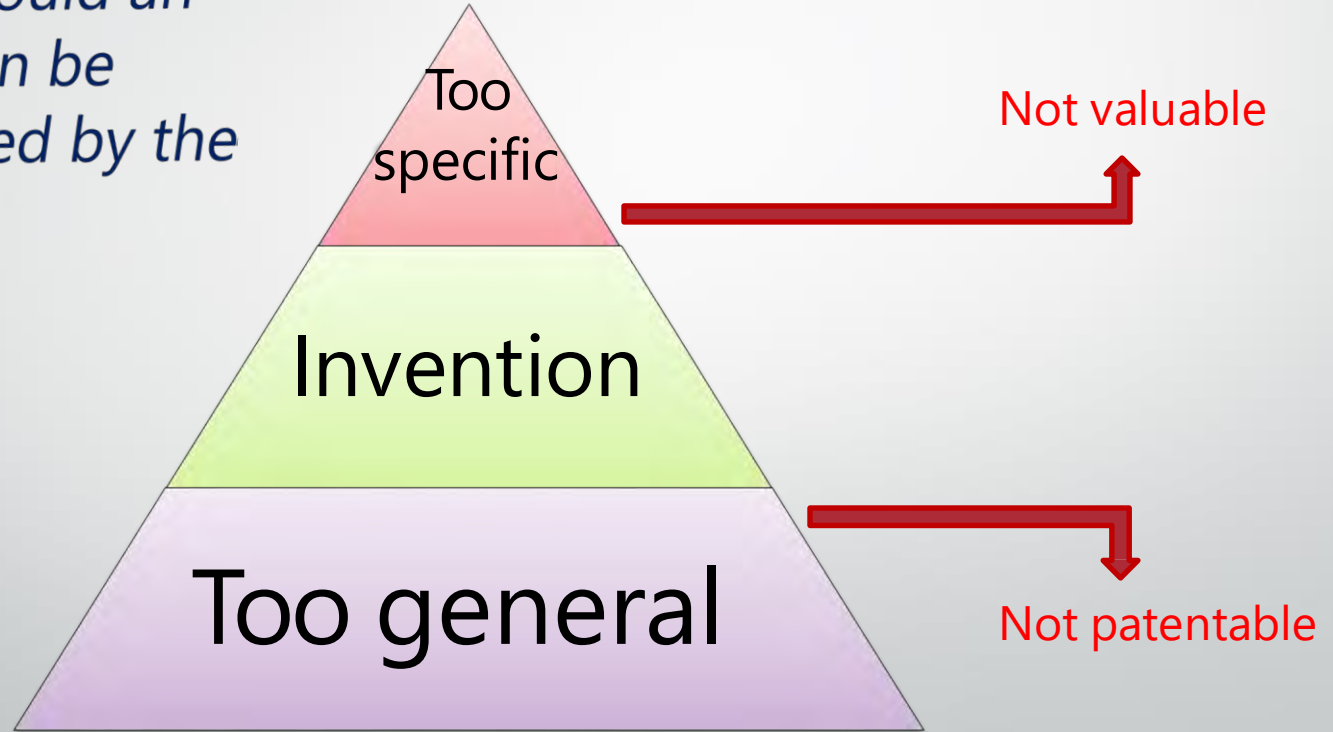


U.S. Patent Claim Requirements

- 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 the 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:

1. “comprising” and variants (i.e., “comprises,” “containing,” etc.)
 - a. Most commonly used
 - b. Open-ended and not exclusive to unclaimed elements
 - c. Familiarly understood as “including, but not limited to”
2. “consisting of” or “consists of”
 - a. Close-ended and very exclusive
 - b. Claim elements are limited to those which

Claims may use both phrases and repeatedly



Part 3: The Body

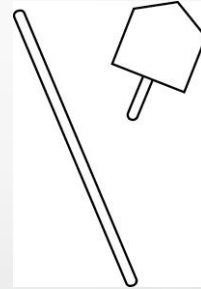
Most linguistically complex part of the claim:

- 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

Iterative Drafting of Claims

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

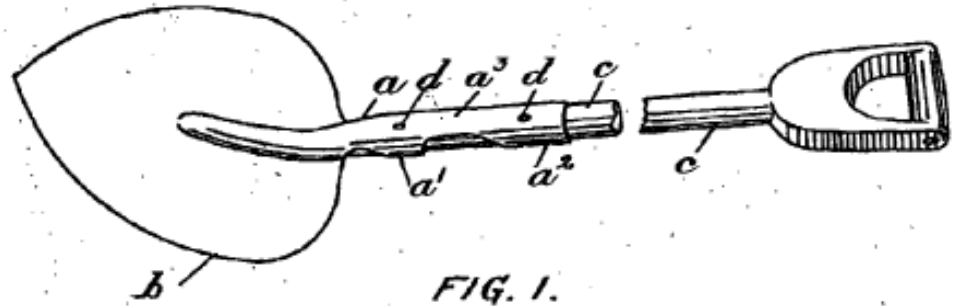
=



Kit Claim

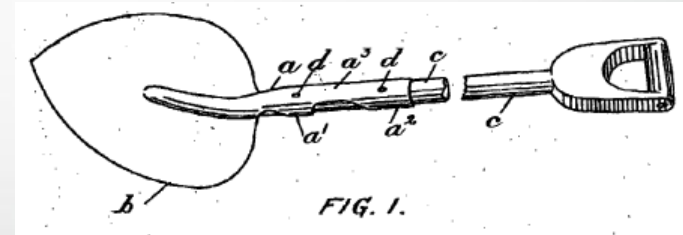
Iterative Drafting of Claims

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



Iterative Drafting of Claims

1. A shovel, comprising:
a handle having **an** opening wherein **said** opening includes a linear portion and a curved portion, wherein **said** opening is partially defined by a circular member.....



Picture Claim

Example: Antecedent Basis Issue

1. A shovel, comprising:

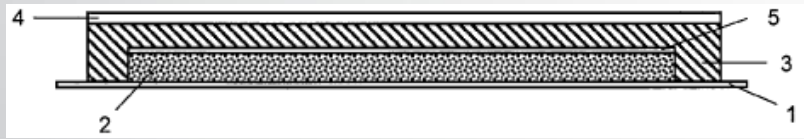
a.) a handle and

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



Structure and Function

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,

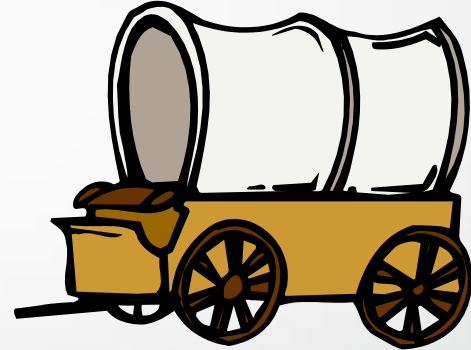
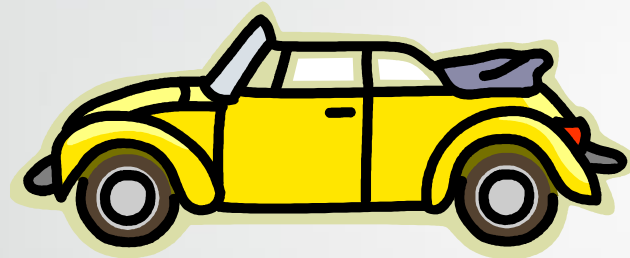
wherein the cover layer is at least partially bi-elastic and the adhesive layer comprises an acrylic copolymer having hydroxyl functional groups, and wherein the matrix layer is in contact with the removable protective layer.

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

Examples of Dependent Claims

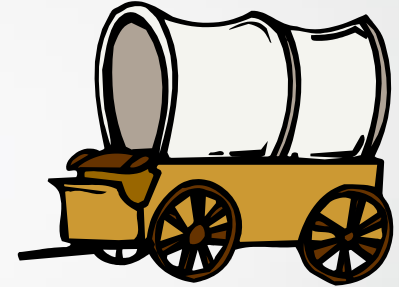
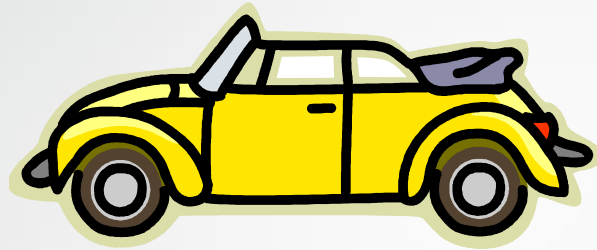
2. ***The transdermal patch according to claim 1***, wherein ***the*** matrix layer is arranged to be in contact with ***the*** protective layer and in contact with ***the*** adhesive layer but not in contact with ***the*** cover layer, and ***the*** adhesive layer is arranged to be in contact with ***the***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

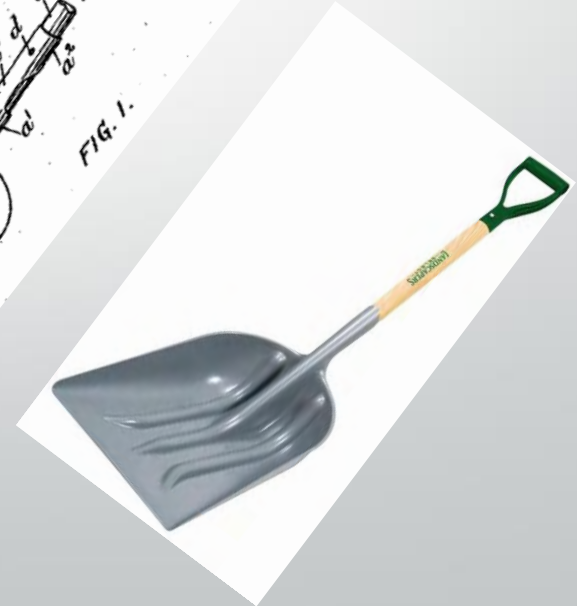
- ✓ Particularly point out and distinctly claim the subject matter regarded as the invention
- ✓ Consider drafting your claims first and then your specification based on terms used in the claims
- ✓ Review both to make necessary additions and corrections so that the claim terms find support in the specification
- ✓ 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

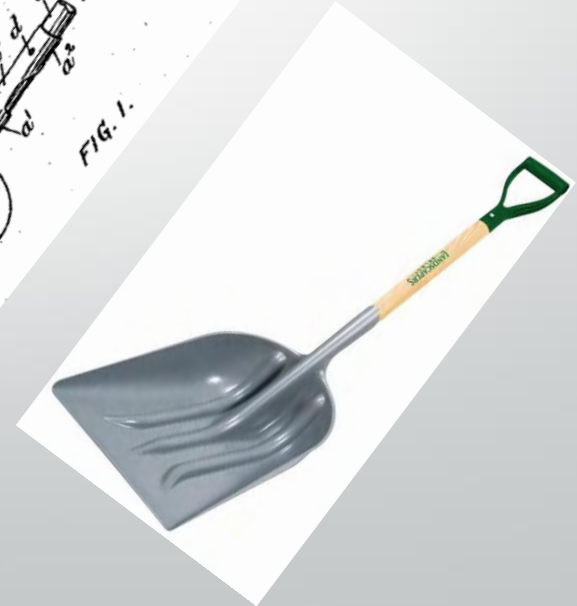
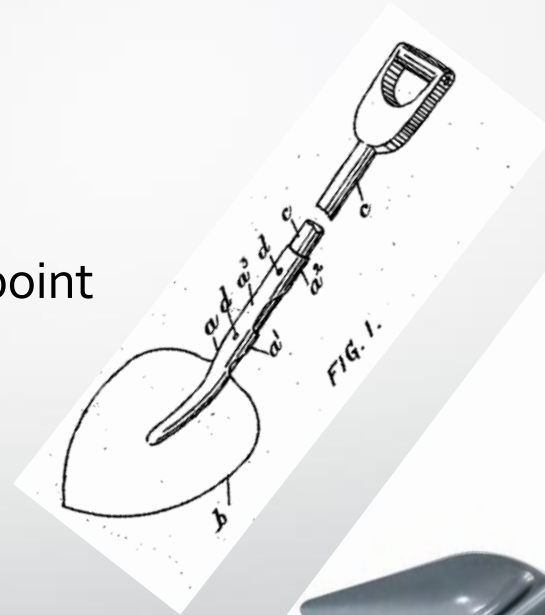
Iterative Drafting of Claims

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



Iterative Drafting of Claims

1. A shovel, comprising:
a handle and a blade;
wherein said blade includes a point
at a distal end and connected
to said handle.



USPTO 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

USPTO 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 USPTO 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



The Path to a Patent, Part 5:

Electronic Filing in DOX Using
Patent Center

Thursday, August 19
11am – noon EST

Thank You Presenters!



Stephen Yanchu, USPTO
Special Advisor at
Eastern Regional Outreach Office
StephenYanchuk@uspto.gov



Doug Kim, Kim & Lahey Law Firm
Founder & Attorney
doug@kimandlahey.com
864.973.6688