Path to a Patent, Part IV: Learn how to draft a patent application
Notice

This content is for informational purposes only and is not legal advice. Please consult with appropriate sources for legal authority and guidance on these matters.
Objectives

• Contents of a Patent application disclosure
  – Detailed Description
  – Drawing
  – Abstract
  – Claims

• Enablement Requirement

• Limitations of claims can be modified based only on the disclosed invention at the time of filing

• Important to capture the invention using clear and consistent language throughout the disclosure
Utility applications

Provisional
- Not examined or published
- One-year time limit
- Only for utility

Nonprovisional
- Examined: claims required, written description must meet requirements
- Published
  - 18 months from earliest filing date
  - Unless request for non-publication at filing
- Can become a patent
Provisional patent application requirements

Law requires:

• Clear indication that applicant is filing a provisional application
• Fee
• Description of the invention must enable someone to make and use the invention
• Drawing if necessary to understand the invention
Provisional patent application requirements (cont’d)

Cover Sheet provides a clear indication that applicant is filing a provisional form PTO/SB/16

- Inventor name(s)
- Inventor residence(s)
- Title of the invention
- Correspondence address
- Attorney information (if any)
- U.S. government interest (if any)
Provisional application for patent cover sheet
Provisional v. Nonprovisional

Provisional

- Automatically abandoned after one year period
- no claims required
- written disclosure must meet same requirements as nonprovisional
- Note: provisional applications are not allowed for design patent applications

Nonprovisional

- At least one claim required
- written disclosure must meet requirements of 35 USC 112 1st paragraph (pre AIA), or 35 USC 112(a) paragraph (post AIA)
- Examined for patentability, can result in a patent

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.
A nonprovisional utility patent application must include a specification, including
- a description and a claim or claims;
- drawings, when necessary;
- an oath or declaration; and
- prescribed filing, search, and examination fees.


File Wrapper Images of published or patented applications: [portal.uspto.gov/pair/PublicPair](http://portal.uspto.gov/pair/PublicPair)
Specification

- Written description of the invention
- How to make and use the invention
- Clear, full, concise, and exact terms to allow any person skilled in the technology of the invention to make and use the invention
- At least one specific embodiment
- Concludes with at least one claim (must begin on a new page)
Specification page format

• The specification, including the abstract and claims, must have lines that are 1.5 or double-spaced in a single column of text
• Written on only one side in portrait orientation
• 8.5 by 11 inches with all margins of at least ¾ inches except for a left side margin of at least 1 inch
• The application pages must be numbered consecutively (centrally located above or below the text) starting with page one
• Nonscript font (e.g., Arial, Times Roman, or Courier), preferably with a font size of 12
Specification sections

• Title of the Invention (short and specific)
• Most common applicable sections
  – Background (e.g., state of the art before your invention)
  – Brief Summary of the Invention
  – Brief Description of the Drawings (list of all figures by number with brief statement of what the figure depicts)
  – Detailed Description of the Invention
• Claims (on a separate sheet)
• Abstract (less than 150 words, one paragraph, on separate sheet)
Lesser used sections

• Cross reference to related applications
  – Include if you are filing a continuation or divisional or claiming priority to a provisional application
• Statement regarding federally sponsored research
• Names of parties to a joint research agreement
• Incorporation by reference of material submitted via compact disk or text file
• Statement regarding prior disclosure by the inventor or a joint inventor
• Sequence listing
Title of the invention

The title should be as specific as possible in describing the invention.

– Think of the title as the quick description of your invention
– Avoid generic language such as “system and method for ...”
– Should allow a reader to readily ascertain what your invention is
– Subject to change as a result of prosecution
– If a satisfactory title is not supplied by the applicant, the examiner may, at the time of allowance, change the title by an examiner’s amendment
Abstract

- Starts on a separate sheet with the heading “Abstract”
- Must be 150 words or less; 1.5 or double spaced
- Narrative form; single paragraph
- Points out what is new in the technology
- Not a repeat of the claim(s) or Brief Summary
- Written to enable the public to quickly determine the nature of the technical disclosures of the invention

See MPEP § 608.01(b) for more information
Background of the invention

• Field of invention
  – Describe at a high level the areas pertinent to your invention

• Description of related art
  – Describe what you know has been done before
  – Describe what prior art you know about
  – Describe the problems that lead you to come up with your invention
Brief summary of the invention

• Always precedes the Detailed Description
• Purpose is to apprise the public as well as more focused artisans of the nature of the invention
• The summary should be directed to the specific invention being claimed in one or more clear, concise sentences or paragraphs
• Should be consistent with the subject matter of the claims
Brief description of the drawings

- If drawings (e.g., figures or flow diagrams) are part of the application papers, this section needs to be provided before the application is considered complete and released from initial processing.
- This section must include a brief statement of what each figure depicts (e.g., a front view of the invention, an expanded view of the elements prior to assembly).
Drawings

- Part of disclosure of the invention, and are required if necessary to understand the invention
  - A drawing necessary to understand the invention cannot be introduced after the filing date
- Must show every feature of the invention claimed
- Must contain as many views as necessary to show the invention
- Drawings are deemed “acceptable” or “unacceptable,” on the basis of them being readable and reproducible
Drawing requirements

• Black and white drawings; lines; numbers heavy enough to permit adequate reproduction
• Color drawings are permitted for all applications
• Photographs (B/W and color) while not normally permitted in utility and design applications can be accepted
• Use reference characters (in specification and drawings; numerals preferred)
• Each figure must be labeled (e.g., FIG. 1)
• Avoid using descriptive words in the Figures
Detailed description of the invention

• Most important part of the application
• Explain the invention and the process of making and using it in full, clear, concise and exact terms
• Focus on explaining the structures, processes or compositions of the invention
• Refer to the figures, if applicable, and explain the different parts by use of reference numerals shown in the figures

See MPEP § 608.01(g) for more information
Detailed description of the invention

- The detailed description should provide clear support or antecedent basis for all terms used in the claims so that the meaning of the claim terms in the claims may be ascertainable by reference to the description.

- It can be helpful to draft your claims first.
  - By drafting the claims first, you can decide on the terminology to use and make sure that terminology is consistent throughout the specification.
  - You can also figure out which terms need to be defined or explained in more detail in the specification.
  - The claims can be a checklist to make sure the detailed description provides clear support for the claims.
Specification DOs

- Describe the invention clearly to allow any person skilled in the art to make and use the invention without undue experimentation.
- When referencing the drawings, be sure that each reference numeral is used for only one part depicted in the drawings, and that each reference numeral shown in the drawings is mentioned in the specification.
- Provide at least one specific embodiment, including the best one known to you at the time of filing.
- Make sure there is a “Brief Description of the Drawings” section that includes each figure referenced by its full label (e.g., Figures labeled 1A, 1B, and 1C should be separately mentioned vs. collectively referred to as “Figure 1” in the brief description).
- Provide proper antecedent basis for all the terms in the claims.
- Focus on the technical features of the invention.
Specification Cautions

✗ Should not use trademarks in the title or to describe structure (e.g., “VELCRO” to describe a hook and loop fastener), or using a mark (e.g., logo, brand) you intend to register for a commercialized product

✗ “Background of the Invention” section does not need to state how the inventor conceived the invention (e.g., “I came up with this idea while jogging”)

✗ Avoid making claims of possible future success (e.g., “This invention will sell and make millions” or “This invention will revolutionize the field”)

✗ Do not include a detailed discussion of the figures or refer to the reference characters in the “Brief Description of the Drawings” section

✗ Do not forget to proof read your specification to look for grammatical errors
Claim(s)

If it is in the claim, it **must** be in the specification:

- 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
Form of claim(s)

• 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)
• 3 independent claims; 20 claims total before excess fees are due
• Numbered consecutively in ascending order; original numbering preserved throughout prosecution
U.S. patent law requirements

- 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
- A dependent claim refers to a claim previously set forth and then further limits the claimed invention
- A claim in dependent form incorporates by reference all the limitations of the claim to which it refers
How should an invention be delineated by the claims?

- Too Specific
- Invention
- Too General
- Not valuable
- Not patentable
Before drafting claims

Prior to writing claim answer these questions:

• What is the invention?
• What are the pieces and parts that make up the invention?
• How do the pieces and parts relate to one another?
• Do you have more than one invention?
  – Tangible: Apparatus, machine, composition
  – Method: Making or Using
• Are there multiple versions of each invention?
Thinking strategically

• What is it that you are hoping to accomplish
  – Obtain the broadest, valid claim possible
  – Obtain claims with a variety of claim scope
  – Not just at time of filing, but during prosecution
• Are at least some claims you filed likely to be patentable without amendment?
  – 35 USC § 154(d) provisional rights
## Resources

**Helpline: 1-800-PTO-9199**

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Office of Innovation Development

- Virtual 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
- http://www.uspto.gov/inventors
Upcoming patents programs

• The Path to a Patent, Part V: Understanding the role of claims in a patent application
  Thursday, November 18, 2 p.m. ET

• The Path to a Patent, Part VI: Learn how to protect your IP abroad
  Thursday, December 2, 2 p.m. ET

• The Path to a Patent, Part VII: How to file a patent application using Patent Center
  Thursday, December 9, 2 p.m. ET

• The Path to a Patent, Part VIII: Common mistakes and post-filing support
  Thursday, December 16, 2 p.m. ET

List of upcoming USPTO programs at www.uspto.gov/events
Thank you!

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