

**UNITED STATES
PATENT AND TRADEMARK OFFICE**



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

UNITED STATES
PATENT AND TRADEMARK OFFICE



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



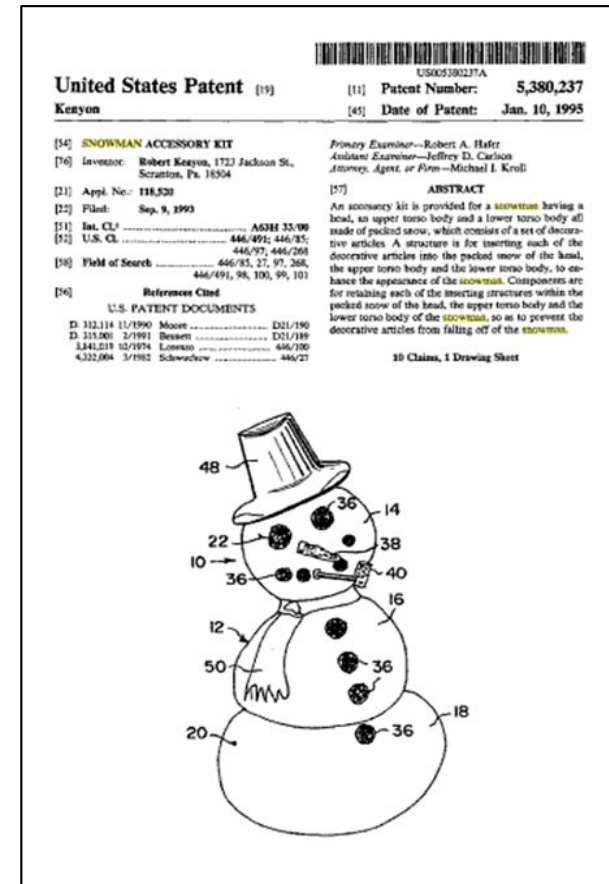
Utility applications

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

PTO/SB/16 (10-20)
Approved for use through 11/30/2020. OMB 065-1-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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PROVISIONAL APPLICATION FOR PATENT COVER SHEET – Page 1 of 2

This is a request for filing a PROVISIONAL APPLICATION FOR PATENT under 37 CFR 1.53(c).

Priority Mail Express® Label No. _____

INVENTOR(S)		
Given Name (first and middle [if any])	Family Name or Surname	Residence (City and either State or Foreign Country)
Additional inventors are being named on the _____ separately numbered sheets attached hereto.		
TITLE OF THE INVENTION (500 characters max):		
Direct all correspondence to: CORRESPONDENCE ADDRESS		
<input type="checkbox"/> The address corresponding to Customer Number: _____		
OR		
<input type="checkbox"/> Firm or Individual Name		
Address _____		
City _____	State _____	Zip _____
Country _____	Telephone _____	Email _____
ENCLOSED APPLICATION PARTS (check all that apply)		
<input type="checkbox"/> Application Data Sheet. See 37 CFR 1.76.	<input type="checkbox"/> CD(s), Number of CDs _____	
<input type="checkbox"/> Drawing(s) Number of Sheets _____	<input type="checkbox"/> Other (specify) _____	
<input type="checkbox"/> Specification (e.g., description of the invention) Number of Pages _____		
Fees Due: Filing Fee of \$300 (\$150 for small entity) (\$75 for micro entity). If the specification and drawings exceed 100 sheets of paper, an application size fee is also due, which is \$420 (\$210 for small entity) (\$105 for micro entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).		
METHOD OF PAYMENT OF THE FILING FEE AND APPLICATION SIZE FEE FOR THIS PROVISIONAL APPLICATION FOR PATENT		
<input type="checkbox"/> Applicant asserts small entity status. See 37 CFR 1.27.		
<input type="checkbox"/> Applicant certifies micro entity status. See 37 CFR 1.29.		
Applicant must attach form PTO/SB/15A or B or equivalent.		
<input type="checkbox"/> A check or money order made payable to the Director of the United States Patent and Trademark Office is enclosed to cover the filing fee and application size fee (if applicable).		
<input type="checkbox"/> Payment by credit card. Form PTO-2038 is attached.		
<input type="checkbox"/> The Director is hereby authorized to charge the filing fee and application size fee (if applicable) or credit any overpayment to Deposit Account Number: _____		
TOTAL FEE AMOUNT (\$) _____		

USE ONLY FOR FILING A PROVISIONAL APPLICATION FOR PATENT

This collection of information is required by 37 CFR 1.51. The information is required to be retained or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.111 and 1.14. This collection is estimated to take 10 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

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PROVISIONAL APPLICATION FOR PATENT COVER SHEET – Page 2 of 2

The invention was made by an agency of the United States Government or under a contract with an agency of the United States Government. (NOTE: Providing this information on a provisional cover sheet, such as this Provisional Application for Patent Cover Sheet (Form PTO/SB/16), does not satisfy the requirement of 35 U.S.C. 202(c)(6), which requires that the specification contain a statement specifying that the invention was made with Government support and that the Government has certain rights in the invention.)

☐ No.

☐ Yes, the invention was made by an agency of the U.S. Government. The U.S. Government agency name is: _____

☐ Yes, the invention was made under a contract with an agency of the U.S. Government.

The contract number is: _____

The U.S. Government agency name is: _____

In accordance with 35 U.S.C. 202(c)(6) and 37 CFR 401.14(f)(4), the specifications of any United States patent applications and any patent issuing thereon covering the invention, including the enclosed provisional application, must state the following:

“This invention was made with government support under [IDENTIFY THE CONTRACT] awarded by [IDENTIFY THE FEDERAL AGENCY]. The government has certain rights in the invention.”

WARNING:

Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.

SIGNATURE _____

DATE _____

TYPED OR PRINTED NAME _____

REGISTRATION NO. _____

(if appropriate)

TELEPHONE _____

DOCKET NUMBER _____

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.

Nonprovisional (Utility) Patent Application Filing Guide

- 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.
- Online Guide: www.uspto.gov/patents-getting-started/patent-basics/types-patent-applications/nonprovisional-utility-patent
- File Wrapper Images of published or patented applications: 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 $\frac{3}{4}$ 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



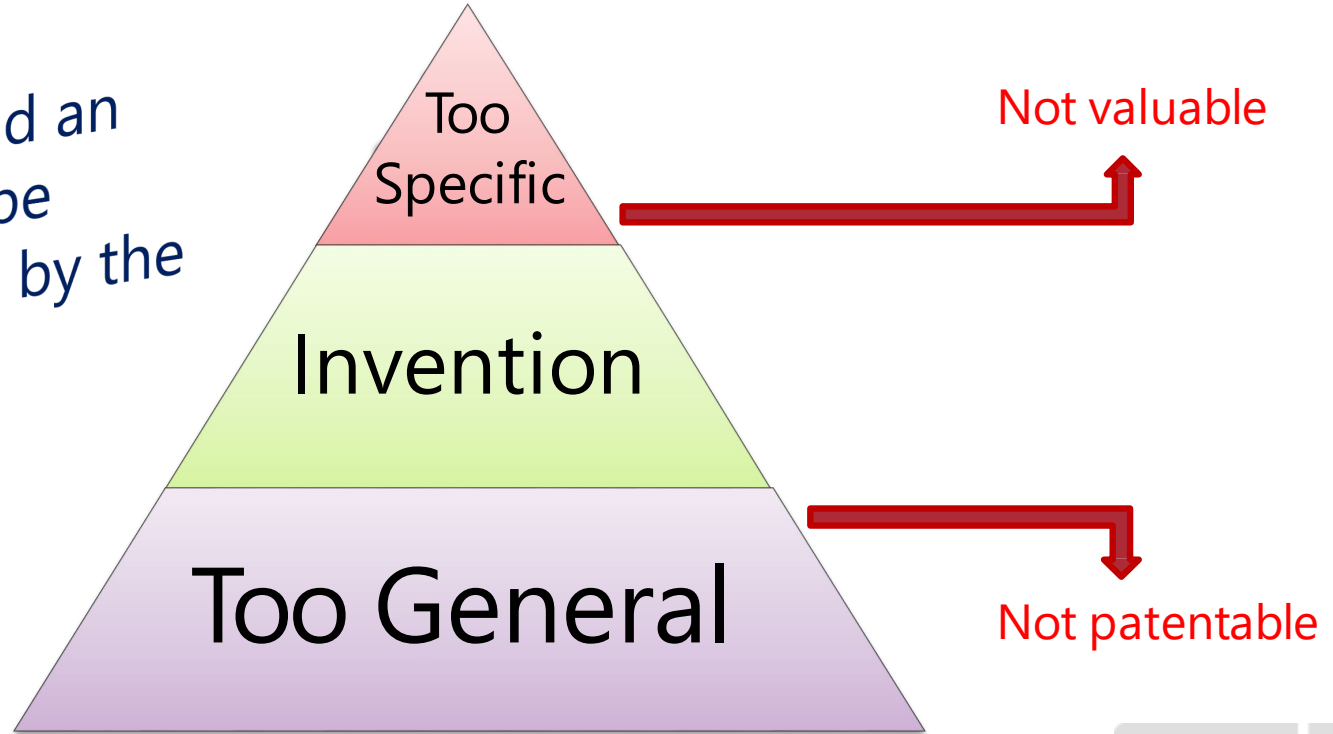
U.S. patent law requirements

- 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



Claims

How should an invention be delineated by the claims?



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

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
Trademark Assistance Center and Help Videos	www.uspto.gov/trademarks
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

- 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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