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Filing a Provisional or Non-Provisional Utility Patent Application

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July 21, 2021

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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

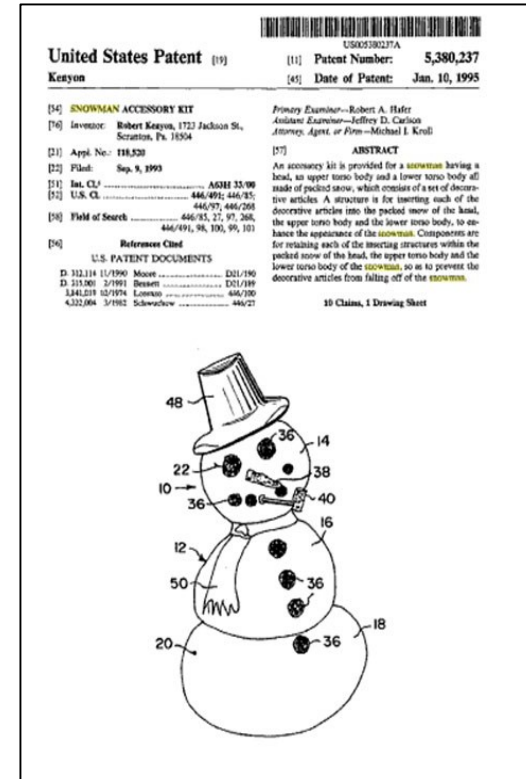
Utility Applications

Provisional

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

Non-Provisional

- 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 v. Non-Provisional

- **Provisional**

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

- **Non-Provisional**

- 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.

Non-provisional (Utility) Patent Application Filing Guide

- A non-provisional utility patent application must include a specification, including a description and a claim or claims; drawings, when necessary; an oath or declaration; and the prescribed filing, search, and examination fees.
- Online Guide: <http://www.uspto.gov/patents-getting-started/patent-basics/types-patent-applications/nonprovisional-utility-patent>
- File Wrapper Images of published or patented applications: <http://portal.uspto.gov/pair/PublicPair>

Anatomy of a patent

- Abstract
 - A short summary of the invention.
- Written description
 - How does it work?
 - How is it made or used?
- Drawings
 - What does it look like?
- Claims
 - The claim(s) define(s) the legal boundaries of the invention, similar to a deed to a property.

United States Patent [19]
Jane Doe et al.

[11] **Patent Number:** 100,000,000
[45] **Date of Patent:** Jan. 1, 2038

[54] **COMPUTER SYSTEM**

[57] **Inventors:** Jane Doe

[73] **Assignee:** Acme Corp

[21] **Appl. No.:** 100,000

[42] **Filed:** Dec. 31 2030

[51] **Int. Cl.** F16M 13/00

[52] **U.S. Cl.** 248/639; 248/1 B; 248/1 I; 248/359 E; 248/676; 273/DIG. 28; 364/708; 379/454

[58] **Field of Search** 248/177, 1, 637, 639, 248/652, 676, 678, 359 E, 1 A, 1 B, 1 C, 1 I, 346, 463, 455, 454; 364/708; 273/DIG. 28; 379/96, 435, 454

[56] **References Cited**
U.S. PATENT DOCUMENTS
50,000,000 1/2025 Adams et al. 248/177
60,000,000 6/2026 Bertram et al. 248/177
70,000,000 9/2028 Coleman et al. 248/455

FOREIGN PATENT DOCUMENTS
885264 9/1996 Italy 248/455

Primary Examiner—Cordelia Zecher

Attorney, Agent, or Firm—Doe and Assoc.

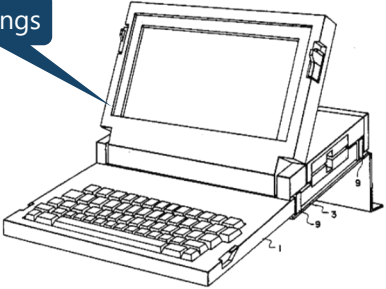
[57] **ABSTRACT**
There is disclosed a portable computer system including a computer, a power supply for the computer and a plate assembly which provides a support for the power supply external to the computer and a foot for disposing the computer in a desired position. The plate assembly includes a first plate to which the computer is attached, a second plate to which the power supply is attached and a hinge coupling the first and second plates together. The hinge allows the plates to be in substantial planar alignment or at an angle to each other to permit the second plate to function as a foot for the computer.

7 Claims, 5 Drawing Sheets

Prior art

Abstract

Drawings



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)

Title of the Invention

- The title should be short and specific 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

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 join inventor
- Sequence listing

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 the problems that lead you to come up with your invention
 - Describe what prior art you know about

Brief Summary of the Invention

- Describe at a high level your invention
- Describe the problems you solve using your invention
- Describe what makes your invention special/different
- Describe what your invention does

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

37 CFR 1.84: Two acceptable standards for Drawings:

- 1: Black and white drawings are normally required for utility and design applications
- 2: Color drawings are permitted in design applications

Drawing Requirements

- Black and white drawings; lines; numbers heavy enough to permit adequate reproduction
- 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

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

Detailed Description of the Invention

- Very 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

Sample claim

- Claim 1. A chair comprising:
 - a seat,
 - a back support attached to the seat,
 - support arms attached to the seat and back support, and
 - a base comprising a plurality of legs attached to the seat.

United States Patent [19]		[11] 100,000,000
Doe		[45] January 1, 2040

<p>[54] SWIVEL CHAIR</p> <p>[75] Inventor: Jane Doe</p> <p>[73] Assignee: Acme Manufacturing</p> <p>[21] Appl. No.: 1,000,000</p> <p>[22] Filed: January 1, 2035</p> <p>[51] Int. Cl.: A47C 3/02</p> <p>[52] U.S. Cl.: 248/628; 297/264; 248/567</p> <p>[58] Field of Search: 248/580, 582, 583, 567, 248/603, 604, 626, 628, 625; 297/264, 265, 268, 314</p>	<p>[56] References Cited</p> <p>U.S. PATENT DOCUMENTS</p> <table border="0" style="width: 100%;"> <tr> <td style="font-size: small;">366,862,842</td> <td style="font-size: small;">6/1904 Adams</td> <td style="font-size: small;">248/625</td> </tr> <tr> <td style="font-size: small;">565,951,387</td> <td style="font-size: small;">6/1930 Baker</td> <td style="font-size: small;">248/625</td> </tr> <tr> <td style="font-size: small;">675,258,147</td> <td style="font-size: small;">11/1939 Cooper</td> <td style="font-size: small;">248/625</td> </tr> <tr> <td style="font-size: small;">765,654,123</td> <td style="font-size: small;">12/1959 Duvalle</td> <td style="font-size: small;">248/625</td> </tr> <tr> <td style="font-size: small;">876,456,321</td> <td style="font-size: small;">12/1961 Ericson</td> <td style="font-size: small;">248/625</td> </tr> <tr> <td style="font-size: small;">963,852,741</td> <td style="font-size: small;">10/1978 Williamson</td> <td style="font-size: small;">297/268</td> </tr> </table> <p>FOREIGN PATENT DOCUMENTS</p> <table border="0" style="width: 100%;"> <tr> <td style="font-size: small;">6/1963 Canada</td> <td style="font-size: small;">248/580</td> </tr> </table> <p><i>Primary Examiner— Cordilla Zecher</i> <i>Attorney, Agent, or Firm— Doe and Assoc.</i></p> <p>[37] ABSTRACT</p> <p>A leaf-spring supported, free-floating rocker undercarriage for a swivel chair wherein the spring flexural axis corresponds to and the swivel axis intersects with the rocking axis of the chair for support of the same.</p> <p style="text-align: right;">2 Claims, 5 Drawing Figures</p>	366,862,842	6/1904 Adams	248/625	565,951,387	6/1930 Baker	248/625	675,258,147	11/1939 Cooper	248/625	765,654,123	12/1959 Duvalle	248/625	876,456,321	12/1961 Ericson	248/625	963,852,741	10/1978 Williamson	297/268	6/1963 Canada	248/580
366,862,842	6/1904 Adams	248/625																			
565,951,387	6/1930 Baker	248/625																			
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765,654,123	12/1959 Duvalle	248/625																			
876,456,321	12/1961 Ericson	248/625																			
963,852,741	10/1978 Williamson	297/268																			
6/1963 Canada	248/580																				

Form of Claim(s)

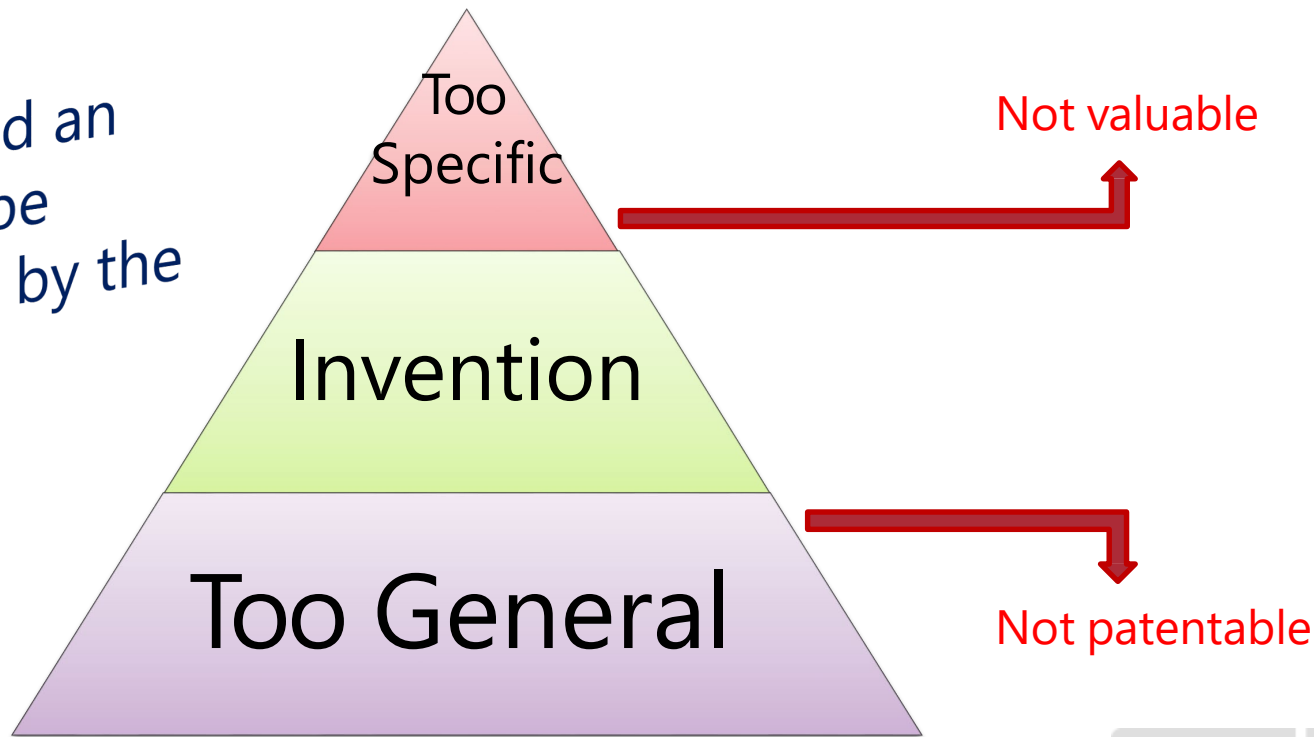
- Starts on a separate sheet with the Heading "Claim Listing"
- 1.5 or double spaced
- Each claim is a single sentence (begins with a capital letter and ends with a period)
- 3 independent claims; 20 claims total before excess fees are due
- Numbered consecutively in ascending order; original numbering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

U.S. Patent Law Requirements

- A non-provisional 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

Thinking Strategically

- How much can you afford to spend on claims?
 - Independent in excess of 3 = \$115 per claim (Subject to change)
 - Total claims in excess of 20 = \$25 per claim (Subject to change)
 - Not just at time of filing, but during prosecution

Note: All of the above costs are for micro-entity

Claim Drafting

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

1. A preamble or the introduction;
2. A transitional phrase, such as:
 - "comprising" (open);
 - "consisting of" (closed)
3. A body reciting the elements of the invention.

Claim Drafting (continued)

Transitional Phrases in Patent Claims: Comprising vs. Consisting of

- “Comprising” or “which comprises”
 - Most commonly used
 - Open ended
 - Claim encompasses all of the listed elements and may more
- “Consisting of”
 - Close ended
 - Claim elements are limited to as listed and no more

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

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

A detailed technical drawing of a mechanical assembly, likely a piston and crank mechanism, rendered in a light gray line-art style. The drawing includes various numbered callouts (e.g., 22, 26, 32, 34, 36, 40, 50, 52, 68, 80, 82, 84, 86) pointing to specific components. The background is a dark blue gradient.

Resources

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Inventors Assistance Center (IAC)

- The Inventors Assistance Center (IAC) provides patent information and services to the public. The IAC is staffed by former supervisory patent examiners and experienced former primary examiners who answer general questions concerning patent examining policy and procedure.

Monday – Friday,
8:30 a.m. – 8 p.m. ET,
except federal holidays

- 800-PTO-9199
(800-786-9199)
- 571-272-1000

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USPTO Patent Pro Bono Program

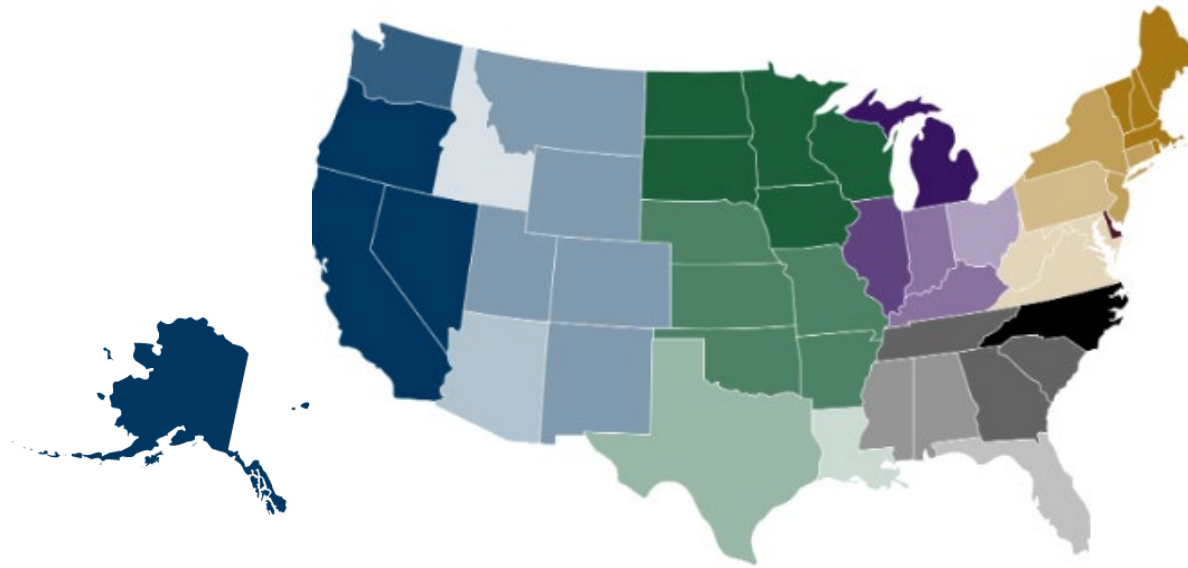
- A nationwide network that assists financially under-resourced independent inventors and small businesses
- Program participants must have income 300% below federal poverty guidelines



For more information, visit www.uspto.gov/probonopatents.



Pro Bono Program organizations



- | | | |
|--------------------------------------|--------------------------------------|------------------------------|
| ■ Washington Pro Bono Patent Network | ■ Gateway Venture Mentoring Service | ■ New York Tri State Program |
| ■ Idaho Patent Pro Bono | ■ TALA | ■ Delaware Program |
| ■ CLA | ■ The Ella Project | ■ FCBA (Mid-Atlantic) |
| ■ ProBoPat | ■ Chicago-Kent Patent Hub | ■ PA Patent |
| ■ Arizona Public Patent Program | ■ PatentConnect for Hoosiers (IN KY) | ■ NC Leap |
| ■ LegalCorps (MN) | ■ Ohio Invents | ■ Georgia Patents |
| ■ Pro Bono Patent Project (MI) | ■ BBVLP Patent Program (MS AL) | ■ Patent Pro Bono FL |
| | ■ New England Program | |

Law school clinics

- The USPTO's Law School Clinic Certification Program allows law students enrolled in a participating law school's clinic program to practice before the USPTO under the guidance of a law school faculty clinic supervisor.

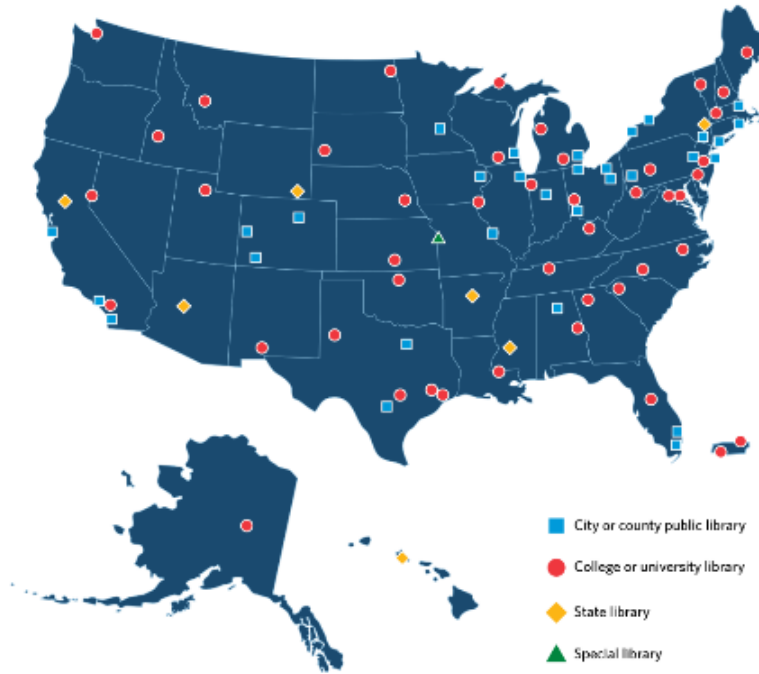


For more information, visit www.uspto.gov/lawschoolclinic.

Patent and Trademark Resource Centers (PTRC)

Nationwide network of public, state, and academic libraries designated by the USPTO to disseminate patent and trademark information and support the intellectual property needs of the public

For more information, visit
www.uspto.gov/ptrc.



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



Thank you

<https://www.uspto.gov/about-us/uspto-locations/alexandria-va/eastern-regional-outreach-office>

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www.youtube.com/USPTOvideo/

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