

# Parts of a Patent Application

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**Title** – should reflect the essence of invention without being too long (~ 7 words maximum) or so specific that it's narrower than the full scope of invention.

# Parts of a Patent Application

Title

## Background of the Invention:

- Field of Invention – a one-sentence paragraph stating the general and specific field in which your invention falls, e.g., “This invention relates to bicycles, specifically to an improved pedal mechanism for a bicycle.”

# Parts of a Patent Application

Title

## Background of the Invention:

- Description of Related Art – overview of prior art by each reference
  - Discuss how the problem to which your invention is directed was approached *previously*, and then list all the disadvantages of the old ways of doing it.
  - Don't be too derogatory, but make your invention look as good as possible by explaining why the prior art isn't as good
  - Keep statements factual – not opinionated
  - Explain why a solution to the problem is needed

# Parts of a Patent Application

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Title

Background of Invention

Field of the Invention

Description of Related Art

## Summary of the Invention

- Nature and substance of invention, may include object of the invention and be commensurate with invention as claimed
- Tip: convert claims to narrative

# Parts of a Patent Application

Title

Background of Invention

Field of the Invention

Description of Related Art

Summary of Invention

## Brief Description of Drawings

Description of drawings – a series of separate paragraphs, each briefly describing a respective figure of your drawing, e.g., “Figure 1 is a perspective view of the invention.”

List of Numerals – optional, must consistently use numbers throughout to identify elements

# Parts of a Patent Application

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Background of Invention

Field of the Invention

Description of Related Art

Summary of Invention

Brief Description of Drawings & List of Numerals

## Detailed Description

- **Objects – “What the invention accomplishes”**
- **Advantages – “Sing the Praises” of invention over prior art**
- **Description of invention – detailed description of the static physical structure of invention. If a process, describe the procedures or machinery involved in it.**
- **The more information placed here the better. Remember – once patent issues, the entire application becomes part of the public record (prior art). Less likely that someone else can get an improvement patent due to non-obviousness**

# Parts of a Patent Application

Title

Background of Invention

Field of the Invention

Description of Related Art

Summary of Invention

Brief Description of Drawings

List of Numerals

Detailed Description of Invention

**Claims – the claims are the invention**

# Parts of a Patent Application

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Summary of Invention

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List of Numerals

Detailed Description of Invention

Claims

**Abstract** – a one paragraph (~150 words) concise summary of the invention.

Usually read first

While at end of application, it goes on first page of issued patents

Write last! (Tip: Claims narrative)

# Parts of a Patent Application

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**Title of Invention**

**Background of the invention**

**Field of the Invention**

**Description of Related Art**

**Summary of the Invention**

**Brief Description of Drawings**

**List of Numerals**

**Detailed Description of Invention**

**Claims (starts on new page)**

**Abstract (starts on new page)**

**Drawings (starts on new page, or separate document)**

# Patent Application Tips

**The CLAIM is the invention property right**

**Claim has three parts:**

- **Preamble (The invention claimed is)**
- **Body (An article of manufacture comprising elements)**
  - **Wherein clause (refinement)**

**Purpose of claim – to unambiguously define the invention in words (no diagrams/charts)**

**Structure of claim – one “sentence” (can use , ; : but no period except at end). It does not need to follow proper rules of grammar.**

# Patent Application Tips

## Characterization of claim

**Broad (the less said, the broader)**

**Narrow (the more said, the narrower)**

## Five types of claims:

**Process or method (Steps with gerunds –ing)**

**Machine (Elements)**

**Article or Article of Manufacture (Elements)**

**Composition of Matter (Elements)**

**New use or improvement of previous four statutory classes (always a method claim)**

# Writing Claims

First claim is always **independent**

Write a series of **dependent** claims in successively narrower terms (refers to and incorporates an independent claim)

If broader claim is disallowed, a more specific (narrower) one may be allowed (becomes the new independent claim)

# Definitions

**Lexicographer**: words will be given their usual meaning as understood in the industry, unless you specifically define otherwise. Must use terms from Detailed Description in the Claims.

**“A”** (indefinite article) – used the first time an element is introduced.

**“The”** or **“Said”** (definite article) – used to refer to an already introduced element.

# Definitions

“Comprising” – including the following items, but can also include others (open-ended).

“Consisting of” – selected from or including the following items **only** (closed-ended; “selected from the group consisting of”; must use “and”).

# Banana Split Example

Food item comprising the following items:  
bananas, strawberries, ice cream and  
whipped cream.

Food item consisting of the following items:  
bananas, strawberries, ice cream and  
whipped cream.

Question: If I add walnuts, do I infringe on  
either claim?

# Sample Article of Manufacture Claim

**A hand-held writing instrument comprising:**

- a. elongated core-element means that will leave a marking line if moved across paper or other similar surface, and
- b. an elongated holder surrounding and encasing said holder being removable from an end thereof to expose an end of said core-element means so as to enable said core-element means to be exposed for writing, whereby said holder protects said core-element means from breakage and provides an enlarged means for holding said core-element means conveniently.

**PENCIL**

# Sample Process Claim

**A method for joining two pieces of cloth together at their edges, comprising the steps of:**

- a. **Positioning said two pieces of cloth together so that an edge portion of one piece overlaps an adjacent edge portion of the other piece, and**
- b. **Passing a thread repeatedly through and along the length of the overlapping portions in sequentially opposite directions and through sequentially spaced holes in said overlapping adjacent portions,**

**whereby said two pieces of cloth will be attached along said edge portions.**

**SEWING**

# Process/Method Claim

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**If possible, try to include a process claim (the process followed to use the invention) in every patent application**

**Even if an infringer can “design around” the physical claims, you will retain some protection from the process claim**

# Sample Machine Claim

**A self-propelled vehicle, comprising:**

- a. a body carriage having rotatable wheels mounted there under for enabling said body carriage to roll along a surface,
- b. an engine mounted in said carriage for producing rotational energy, and
- c. means for controllably coupling rotational energy from said engine to at least one of said wheels,

whereby said carriage will be self-propelled along said surface.

**AUTOMOBILE**

# Sample Software Machine Claim

**A machine of inserting additional characters within an existing series of characters on a display, comprising:**

- a. a memory which is able to store a series of characters at an adjacent series of addresses in said memory,**
- b. a character input means which a human operator can use to store a series of characters in said memory at said adjacent series of addresses,**
- c. A display which is operatively connected to said memory for displaying said series of characters stored in said memory at said adjacent series of addresses,**
- d. a pointer means which said operator can manipulate to point to any location between any adjacent characters within said series of characters displayed on said display,**

# Sample Machine Claim

e. a memory controller which will:

- 1) direct any additional character which said operator enters via said character input means to a location in said memory, beginning at an address corresponding to the location between said adjacent characters as displayed on said display, and
- 2) cause all characters in said series of characters which are stored in said memory at addresses subsequent to said location in said memory to be transposed to subsequent addresses in said memory so that said additional characters will be stored in said memory at said location and before all of said subsequent characters,

whereby said display will display said additional characters within said series of characters at said location between said adjacent characters, and

whereby a writer can add words within the existing body of text and the added words are displayed in an orderly and clean fashion without having to reenter said existing body of text.

**WORD-PROCESSOR**

# Sample Composition of Matter Claim

A rigid building and paving material comprising a mixture of sand and stones, and a hardened cement binder filling the interstices between and adhering to sand and stone, whereby a hardened, rigid and strong matrix for building and paving will be provided.

**CONCRETE**

# Writing Claims

## Independent Claim

An article of furniture for holding objects for a sitting human, comprising:

- (a) a sheet of rigid material of sufficient size to accommodate use by a human being for writing and working

# Writing Claims: Simple Claims Map

1	2	3	4	5	6	7	8
I	D	D	D	D	D	D	D

1. An article of furniture . . .
2. The article of furniture of Claim 1 wherein said sheet of rigid material is made of wood.
3. The article of furniture of Claim 2 wherein said sheet of rigid material of wood is made of chipboard.
4. The article of furniture of Claim 3 wherein said sheet of chipboard has a rectangular shape.

# Writing Claims

## Independent Claim

An article of furniture for holding objects for a sitting human, comprising:

- (a) a sheet of rigid material of sufficient size to accommodate use by a human being for writing and working;
- (b) a plurality of elongated support members of equal length; and
- (c) means for joining said elongated support members at right angles to the underside of said top at spaced locations so as to be able to support said top horizontally.

# Writing Patent Claims

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Initial filing fee provides for 20 claims total with up to 3 of those 20 being independent

More claims beyond 3 independent or 20 total for additional fee