

CONTENTS OF A PATENT APPLICATION

I. CROSS-REFERENCE TO RELATED APPLICATION

A. Has any application been filed by any of the inventors related to the subject matter of this application?

1. What is the Patent Application No.?

2. When was that application filed?

3. What is the title of the application?

II. TECHNICAL FIELD

A. In general, what is the field of technology for this invention?

III. BACKGROUND

A. Describe the problem and why it's important to solve that problem.

B. Describe current solutions you are aware of and their shortcomings.

C. Describe what solutions are still needed.

IV. SUMMARY OF THE INVENTION

A. Generally speaking (in summary), what is the invention and how does it work?

Describe your invention as if you were giving a 30 second sales pitch.

- B. How does your invention solve the problem described in the Background section?
- C. What are the goals/objectives of your invention?
- D. What are the advantages your invention has over the current solutions?

V. BRIEF DESCRIPTION OF DRAWINGS

A. Please provide any drawings (CAD, SolidWorks, hand drawings, etc.) or photographs showing the features of your invention.

B. Helpful views include:

1. Perspective
2. Top/Bottom/Plan
3. Front/Back
4. Side/Elevation
5. Exploded
6. Cross-section
7. Flow charts

VI. DETAILED DESCRIPTION OF THE INVENTION

A. List each component of your invention, i.e. *Name the parts*.

B. For each component/composition/step listed above:

1. Describe the purpose/function/utility of that component.
2. Describe how each component listed relates to, interacts with, or cooperates with the other components.
3. Describe the characteristics, properties, steps, and other details that show how the purpose/function/utility is achieved.

a) *For example:*

i) *Is there a preferred shape? If so, why?*

ii) *Is there a preferred material? If so, why?*

iii) *Is there a preferred orientation? If so, why?*

iv) *Are there preferred dimensions? What are the ranges?*

v) *Describe any particular configuration.*

vi) *Describe the sub-components, particularly the sub-components that create the desired characteristics/properties, using steps 1-5 outlined here as a guideline.*

4. Describe any advantages of the component or step over existing components or steps having the same or similar purpose/function/utility/characteristics/properties.

5. List substitutes that can achieve the desired purpose/function/utility or have similar characteristics/properties of the component.

a) Think about how your competitor would get around your invention.

b) From a hierarchical standpoint, what genus, family, order, class, etc. does the component fall under.

C. Describe how to make the invention

1. Apparatus/Device/Machine

a) *Describe the manufacturing steps.*

b) *Describe the assembly steps.*

D. Describe how to use the invention, as if you were telling somebody over the phone.