

Patent Drafting for Beginners
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Lecture – 22
Identifying the Inventive Concept

Identifying the inventive concept. How do you identify the inventive concept? When you are presented with an invention, either the physical invention by the inventor or the description of the invention in an invention disclosure form, how will you identify the inventive concept? Now there are ways to do this.

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Problem–Solution approach

- Problem First or Solution First?
- To conceive the invention as concept, focus on the problem:

Problem-first approach

- Problem first, not the embodiment
 - A good invention solves a problem that others did not
 - Differs from prior art and corrects earlier mistakes
 - Ask not what the invention is, but what problem it solves



One is the problem solution approach, and we will be basing our lectures based on the problem solution approach. By the problem solution approach, we focus first on the problem that the invention solved. Because you would expect that if you have something that can be termed as an invention, which is new which involves an inventive step, and which is capable of it industrial application

Then you could expect that the invention did solve some problem. And in fact, one of the determinants of inventive step in various jurisdictions including India is to see the problem that was solved by the invention, and if it solved a problem which was not solved before or not solved effectively before, then the patent office will presume that there is inventive step.

So, what do you focus on? Do you focus first on the problem? Or do you focus on the solution? Focusing on the solution because the invention itself is the solution to the problem will could lead you to describing the invention as it is physical embodiments are. If you focus on the solution, which is the invention itself, you may end up describing the invention as it is physical embodiments, it is a physical parts. Whereas, if you focus on the problem, the chances of you elevating the invention to a concept are much better, and there are reasons for that.

So, to conceive the invention as a concept, you need to focus on the problem. Because if there are small variations, or improvements to your invention which can which other competitors can come up with, then if you had focused on the problem, then you may say or you could argue that the variant or the improvement solves the same problem which your invention is directed towards, and since you have claimed the invention as a concept, you could say that you had already envisaged that little improvement or variant into your invention. And the chances of you or your chances of able to stop that person could be on the higher side.

So, we focus on the problem first approach. So, the problem first approach makes you or helps you to focus on the problem that the invention solved and not on the embodiment. Because the embodiment is what would have been described in the idf or would have been shown to an patent attorney.

So, the good invention solves a problem that others did not. It differs from the prior art and corrects earlier mistakes. So, what you need to ask us ask not what the invention is, but ask what the problem what is the problem that the invention solved. Now this will help you to look at a concept before drafting your claim.

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Different Approaches to Drafting

- Description First
- Claim First
 - Claim for the specific embodiment
 - Broaden the claims (e.g. 'glue' becomes 'adhesive')
 - Limitations removed to claim as broad as prior art allows
 - Limitations should aid in distinguishing from prior art



Now, there are different approaches to drafting. One approach is to draft the claim first so the you look at the invention, describe it. So, you first draft the claim, and then you fill in the descriptive part. The other approach is to dash draft the description first. The description is first drafted, and then from the description the claim is done. The claim is kind of crafted out of the description.

Now, the advantages of drafting the claim first is that the claim would be for a specific embodiment. So, if you draft the claim first, then you could broaden the claim, for instance if there is mention of glue in the invention you can you could broaden it to different types of glues you can ask you can use a broader word; like, adhesive, and you can the limitations remove to the claim as broad as the prior art allows. So, you can look it to the prior art and see what are the limitations. And you could remove those limitation as far as the prior art will allow you to do that. And the limitations should aid in distinguishing it from the prior art.

So, all the limitations that you add in the claim would be for the purpose of distinguishing the prior art. So, the advantage of drafting the claim first is it allows you to elevate the invention to the level of a concept. So, you first draft the claim and then move towards the description.

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Problem Solution Statement

- What problem did the invention solve?
- Envision the invention as a solution to a problem
- Problem-Solution Approach
- What problem did the **Ballpoint Pen** solve?



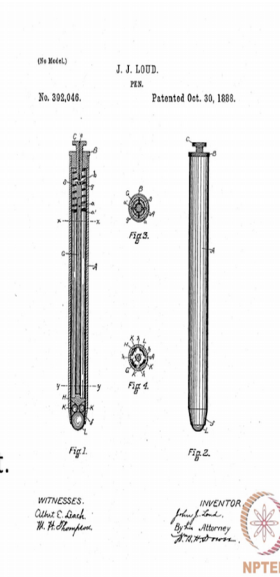
So, the problem solution statement is what will be your step. First step to elevate the invention to the level of a concept. So, you ask what problem did the invention solve. So, envisage the invention as a solution to a problem. And the problem solution approach will be to craft the first statement of the invention as a solution to a particular problem. The problem of dash was solved by the invention dash, you can fill those blanks.

So, let us just see, what problem did the paperclip solved. Now the paperclip solved the problem of managing papers without damaging them. Whereas, if a pin or a stapler would have damaged the paper. So, it solved the problem of managing papers. What problem did the pencil solve? it solved the problem of being able to write on hard surfaces or rough surfaces. What problem did the ballpoint pen solved? To the ballpoint pen solved, the problem of your ability to write with a container where which could store ink.

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Ballpoint Pen Patent

- Loud's Patent (US 392,046) (1888)
- The ballpoint pen
 - Regulating ink flow
 - Aperture for holding ink
 - Spheroidal marking point
- Claim:
A pen having a spheroidal marking-point.



Now, let us look at the ballpoint example in some detail. Now there is a pattern for the ballpoint pen one of the early patents. And the patent which is described here, you can see the figure, it is an 1888 patent, this for the ballpoint pen. Now there are certain features in a ballpoint pen. For instance, there is a cavity where the ink is stored, and the cavity regulates the ink flow.

There is an aperture for holding the ink, which is much different from the prior art if the ink if you look at pencil to be or crayon to be a prior art for the ballpoint pen. Then there is no aperture for holding ink. And there is a spheroidal marking point. There is a spheroidal marking point, what is described as l in the drawing is another feature of the invention.

Now, how do you decide which would be the inventive feature for this invention? Is at the capacity to regulate inflow, ink flow? Is at the aperture for holding ink or the spheroidal marking point? Now it is easy for you to identify the inventive concept if you ask yourself the question what problem did the ball pen solved.

The ballpoint pen solved the problem of writing on rough surfaces. Because you could not write on rough surfaces with a fountain pen, let us assume fountain pen was the earlier prior art for this invention. The fountain pen could only write on smooth surfaces paper. But the ballpoint pen you could use it on rough surfaces like cardboard and on other surfaces as well.

So, this problem was solved by the ball pen. Now you ask yourself, what is the most critical part feature for solving the problem of writing on smooth surfaces. Now you will conclude that it is not regulating the ink flow, it is not the aperture for holding ink, rather it could be the spheroidal marking point.

So, expectedly the claim for this pen was simply append having a spheroidal marking point. Now the focus of this spheroidal marking point comes out of the problem the invention solved. So, the focus should always be on what was the problem that the invention solved and what feature of the invention when to solving that problem. And you claim that feature as an inventive feature in the claim.