

ROADMAP FOR PATENT CREATION

INDICATORS FOR PATENTABILITY

LECTURE 25

A very warm welcome in the fifth module of week 5 of the Course, roadmap for patent creation, titled "Indicators for patentability" When we think of patentability we immediately think about the three criteria as novelty non-obviousness and industrial applicability Now out of these three, industrial applicability and novelty check are very clear without much grey area to identify or to take the decision on it However, with respect to nonobviousness some indicators are necessary. We can say to these indicators as indicators of inventive step. So is there such guidelines or listed indicators to judge this Yes there are guidelines So let us check what are these indicators of inventive step?

1. Distance
2. Surprising Effect
3. Long Felt Need
4. Failure of Others
5. Complexity of Work
6. Commercial Success
7. Cheaper and more economical Product and simplicity of the proposed technological solution.
8. Prior art motivation

Distance : It is to be decided as to how much is the distance between the subject-matter of the invention and the prior-art. If such distance is large it is the better and easy to establish the inventive step So let us check the example Subject matter of invention And Prior art We are now well aware about prior art... So how to judge based on this criteria So if say you are working in chemical engineering domain You have invented some composition So subject matter of the invention is say X composition to heal wound Now there are so many such compositions available in the state of the art...So how to judge now.... So all the available compositions that is prior art and the subject matter under consideration that composition xwe have to compare it for distanceSo you have justify this by comparing the two sets...and providing how much distance is their between these two sets Distance in a sense you can consider any parameters....like preparation method...application method how many days to give result....and so on....

So inventor have to substantiate creation of new composition by this data and offcourse that should work in reality ...it is patent so product should work ...no one can give for the sake of patent application the particular data.... Remember patent system is robust... along with thorough examination by patent examiners pre and post grant opposition are very powerful systems So I hope I am able to explain this distance concept You can apply it Diagnostic tool Machine Civil engineering- effective construction. And so on

Now the next Surprising Effect: if invention is giving any surprising or unexpected effect then yes this can be considered . So what is the meaning of this So let us take one case

We know how penicillin is discovered...1928 Scientist Alexander Fleming.....St. Mary's Hospital in London 1948 patent Alexander Fleming's Discovery of Penicillin 1928 Penicillin Research at Oxford University Penicillin Production in the United States during world war II Increasing the Yield of Penicillin U.S. Pharmaceutical Companies Support Production Scaling-up Production Inventor----Andrew J Moyer Fine Surprising effect Similarly we have seen example of restriction endonuclease... Enzyme acts as scissor...precise cut of DNA.... Or say someone develop a a method of cleaning sewage in say 2 hoursby separating the components of the sewage in such a way that no further disposal processes are required. Okay....

So let move to third indicator c. Long Felt Need: If the claim solves a "long felt need", there is a presumption that a claim is not obvious as other inventors might have also tried to solve it but could not provide the solution to fulfil the need. So let us check example We know who is the inventor of electric light bulb Humphrey Davy and Joseph Swan Think Ford invented the automobile? Wrong again. Historians agree that Thomas Edison was not the inventor of the electric light bulb,commercially viable Earlier light bulbs were experimented with as far back as 1802;and there were 23 others who had invented light bulbs, some of whom were still working on them at the time of Edison's work.

Swan used a carbonized paper filament, but the poor quality of the vacuum in the bulb caused the carbon to disintegrate rapidly, so the bulb glowed for just 13-and-a-half hours. Edison used a better vacuum pump, and after he and his posse of assistants had tested thousands of materials, he made a filament derived from bamboo that lasted up to 1,200 hours. Today's incandescent bulbs, in which the filament is made of tungsten, last about 1,500 hours.Three factors contributing to Edison's success:

1. A durable incandescent material
2. Elimination of air from the bulb-a better vacuum
3. A filament material of high resistance

Thomas Edison's filing his first patent October 1879 Edison successfully tested a filament that burned for 13.5 hours. Continuing to improve his design, by November 1879, he filed for a U.S. patent for an electric lamp using "a carbon filament or strip coiled and connected ... to platina contact wires". The filament was made from a piece of carbonized thread.Interesting case right? The long felt need ...In above case it is solved by Josph swan What was the role of Edison Prototype to commercializationHe took lot of efforts definitely which no one can deny But invention by joseph And then all improvement by edision So Edison could have claimed only for use of the material Edison, who patented his bulb in 1879, merely improved on a design that British inventor Joseph Swan had patented 10 years earlier. Swan sued Edison for patent infringement, and the British courts ruled against Edison (as punishment, Edison had to make Swan a partner in his electric company). Even the U.S. Patent Office decided in 1883 that Edison's patent was invalid, as it also duplicated the work of another American inventor.Okay...Here a few more points we will see related to this point....long felt need So if the inventor solves a long-standing problem by using in a conventional way the materials or techniques that are recently become available then this is not inventive. I repeat

Then next change in economic circumstances; cost effectiveness change in economy material become cheaper or market value increases due to cheaper nature it is not inventive to take advantage of this fine then we are talking about long felt need...now suppose someone solves newly- arisen problem by the use of available resources in an obvious way, then yes no inventive step unless the inventor has been the first to identify the problem so no patent as obvious solution to new problem Example a claim to a polypeptide comprising an antigenic determinant of the hepatitis C virus was found to be non-obvious because despite the attempts of numerous research groups over a 10 year period to identify the agent responsible for Non-A, Non-B Hepatitis (latterly named Hepatitis C), the patentees succeeded in a unique fashion by adopting a known technique which would not have been obvious to try in the circumstances. Okay some times there is long felt need and is fulfilled by particular invention then it can be considered

It is important to have an evidence of

- a long-felt want or unsuccessful attempts to solve a particular problem,
- any evidence as to novelty,
- years of delay in developing the prior art
- and an advantage stemming from the invention.

Now next We know if anything which is Obvious to try then it can be not considered So how to judge this If a skilled worker in a particular field could be expected to know of a use of material to achieve a certain result in that field, then an invention Can not be considered as long felt need is solved However sometimes that use of same material results in substantial resultthen in such case it may be considered for patent grant as the result was not anticipated it was totally different So thing which looks obvious and result expected also anticipated however in actual things results out to be different ...then yes in this case if results are substantially different ..useful...following other criteria and guidelines then in such case use of that material can be considered for the grant of patent so If subject matter provides development on reducing side effects or increased efficacy, then invention was likely to be considered for grant

e. Failure of Others: If other inventors have tried to solve a problem and were not successful, the claim will likely involve an inventive step. So next.....

g. Complexity of Work: If the work undertaken by the inventor in order to produce the invention was particularly complex, and not readily carried out, that is an indication that it was not a matter of routine. In such cases the invention can be non-obvious. So next.....

i. Commercial Success: Commercial success is indicative (but not conclusive) of an inventive step. So next.....

k. Cheaper and more economical Product and simplicity of the proposed technological solution. So next.....

I. Prior art motivation. Fine

There are indicators of inventive steps as

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These indicators will help us and increase our understanding about how the patent examination is followed After going through these details let us watch this interesting video about penicillin discovery With this we come to the end of this session. See you in the next session.

thank you!