

Introduction on Intellectual Property to Engineers and Technologists
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Lecture - 11
Patent Prosecution

(Refer Slide Time: 00:22)

Contents of Specification

- Provisional Specification**
 - **Description of essential features of invention**
 - **Need not include claims & manner of performing invention Advantage**
 - **Provisional protection from early stage of invention**
 - **Cognating of two or more provisional specifications & constitute one final complete specification during different stages of invention**
- Complete Specification**
 - **Field of invention** ○ **Prior art/state of art**
 - **Setting for invention** ○ **Object of invention**
 - **Statement of invention** ○ **Statement of Drawings (if any)**
 - **Description with examples** ○ **Set of claims** ○ **Abstract**

We have discussed about the say patent filing component, who can file? Where to file? So, we have not able, to discuss about the content of the specifications. So, now, I have referred already to you the provisional specification and complete specification. So, what is the content of a provisional specification if you referred? So, description of the essential features of the invention need not include claim matter. I will discuss all those points of (Refer Time: 00:55).

So, provisional specification essentials, I have already referred essential features of the invention. Apart of provisional specification that is not required or because your invention is not complete yet, but complete specification they have created a format for compete specification. What are the things are required for field of invention? Title of the invention should be the first, then field of invention means which field it is, then prior art; what are the (Refer Time: 01:23) of the art in that with reference to that invention, then setting of the invention. How you are setting the invention? Object of the

invention; what is the object of invention? Then what is the statement of invention? Then drawing if any your description, the description with example, then claims and abstract.

So, what is the content you are getting then title, field of invention? Let us say it is a this particular field means with reference to Bio Gasifier or bio gas production, then you have to state that, what are the state of that art that lead to generate that invention? Whatever you may consider in a paper, a literature review or some background note, based on which background you are trying to create, trying to invent that things? Just like what is the problem in that state of the art? That you are referring the prior art or state of the art, then based on the state of that you are setting your invention. What is the setting invention? Then also you are setting the object of invention. What is the object? What is say?

Just like a last example if I considered so mitigate pollution to create generate bio gas to generate energy. Those are the object of the invention the statement of invention; however, addressing those objective, then description of the invention because you may design the bio gasifier, but how this is important part? You should given an example. You may, something should not be in hypothetical situation. On abstract for more gain, you have the concepts should be in the form of an example, means how much bio gas you are producing from the bio gas, let us see one example. How much bio gas? How much (Refer Time: 03:02) format of bio gas is producing how much energy let us see in kilo watt format.

So, you give some example. Examples have to be given. Examples are essential component to judge the invention because otherwise people will say that is abstract things you have just in the fill in the conceptual situation. You have not come up with a reduction to practice format because patent is in the or in the form of reduction to practice. So, I forget to mention you that if you, the idea generator, if somebody provide the idea somebody converting in to reduction to the practice, who will be considered the inventors?

So, they generally consider with reference to reduction to practice. Reduction to practice with reference to intellectual contribution, reduction to practice does not mean erotic contribution. So, reduction to practice in respect to intellectual contribution will consider

the inventor. So, here description should be provide, we will judge with example which is whether the invention in the form of a reduction to practice or not.

Then another important part is the claim. We have to just like some time you call patent right you already referred in the last class claim right. So, what is the, sometime you call this is a (Refer Time: 04:19) of your invention. What are the description everything you are stating.

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Now, you are making a boundary of your invention by means of a claim, which is like say what is the area within, of your invention, just like say I will show you some patents specification. So, in the form of a complete specification just like say, I am showing you some invest patent specification in the form.

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The screenshot shows a web browser displaying the Google Patents page for US 6329589 B1. The page title is "Solar panel" and the publication number is "US 6329589 B1". The abstract describes a solar panel arrangement for capturing solar energy and supplying power for use in a building. It mentions solar cells embedded in a window pane, an electrical circuit converting direct current to oscillating current, and a ferrite core mounted to the pane. The abstract also notes that the arrangement allows window panes to be pre-formed or manufactured with certain built-in electrical components, and without the need for skilled labor, to be easily connected to a power circuit external of the window pane.

Publication number: US6329589 B1
Publication type: Grant
Application number: US 09/532,009
Publication date: 11 Dec 2001
Filing date: 21 Mar 2000
Priority date: 21 Mar 2000
Fee status: Lapsed
Inventors: John Wing-Yan Tang, Tai-Yan Tang
Original Assignee: John Wing-Yan Tang, Tai-Yan Tang
Export Citation: BIBTeX, EndNote, RefMan
Patent Citations (10), Referenced by (26), Classifications (21), Legal Events (3)
External Links: USPTO, USPTO Assignment, Espacenet

IMAGES (4)

The images section contains four technical drawings. The first is a perspective view of a window pane with solar cells and a ferrite core. The second is a top view of the same assembly. The third and fourth are circuit diagrams showing the electrical connections between the solar cells, the ferrite core, and an external circuit.

Just like see this is a US patent specification. So, here it refers to solar panel. This is the patent number. So, this is the abstract of the invention. What is the abstract you are getting that thing, then these are the images because now let us say the inventor has come up with the invention. He has given by means of some drawing that is why you are getting that thing. Then you say description you are getting description before the field of the invention, invention relate to solar panel I referred already to you, the invention is with reference to the solar panel.

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The screenshot shows the "DESCRIPTION" and "CLAIMS" sections of the patent specification. The "DESCRIPTION" section includes the "BACKGROUND OF THE INVENTION" and "SUMMARY OF THE INVENTION". The "CLAIMS" section lists four claims.

DESCRIPTION

BACKGROUND OF THE INVENTION

1. Field of the Invention

The invention relates to solar panels.

2. Description of Prior Art

Solar panels are well-known for capturing solar energy and converting the energy into electric power. Such panels may be provided in windows that are otherwise used in a generally normal fashion in sides of buildings. At present, the electrical connections for leading power away from the buildings are cumbersome and require skilled labor and time to formulate or make-good so that the solar power can be made use of inside the building.

SUMMARY OF THE INVENTION

It is an object of the invention to overcome or at least reduce this problem.

According to the invention there is provided a solar panel arrangement in a window pane comprising a number of solar cells and an electrical circuit permanently connected electrically to the solar cells that converts direct current generated by solar energy in the cells into oscillations, and a ferrite core mounted to the window pane to which the oscillations are applied in use.

The circuit preferably includes an adjustable controller mounted to the pane for changing the oscillations and arranged to be remotely adjustable from externally of the pane. The controller may be a photo-transistor.

CLAIMS (4)

What is claimed is:

1. A window pane assembly for generating electricity in response to light comprising:

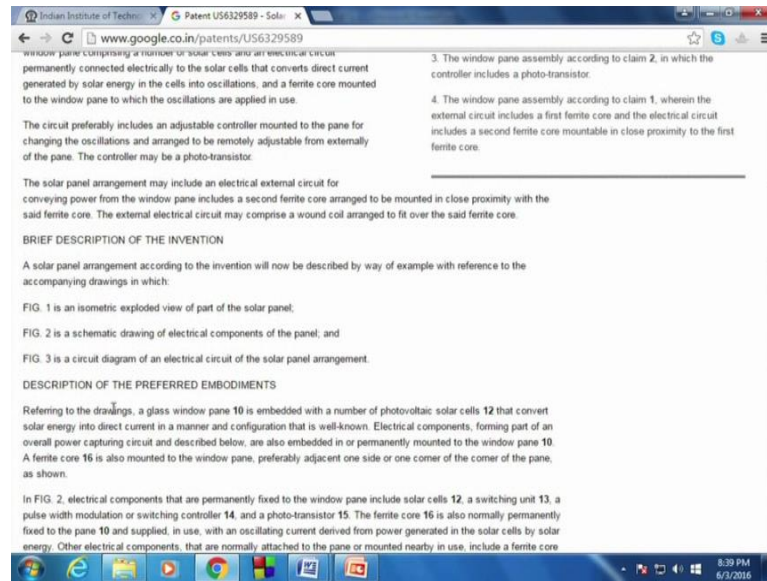
- a window pane in which are embedded a number of solar cells,
- an electrical circuit permanently electrically connected to the solar cells and converting direct current generated by the solar cells in response to solar energy into oscillating current, and
- an external circuit magnetically coupleable to the electrical circuit for conveying electrical energy generated by the solar cells from the window pane and mountable on the window pane.

2. The window pane assembly according to claim 1, in which the electrical circuit includes an adjustable controller mounted to the window pane for changing the oscillating current and that is remotely adjustable external of the window pane.

3. The window pane assembly according to claim 2, in which the controller includes a photo-transistor.

4. The window pane assembly according to claim 1, wherein the external circuit includes a first ferrite core and the electrical circuit includes a second ferrite core mountable in close proximity to the first ferrite core.

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Then we are telling description of the prior art. What are the prior art? They have art with reference to that field. Then summary of the invention, what is the summary with description in the invention, then description of that preferred with reference to that figures. How you are describing those figures? Then, this is the important parameter; a claim. Window pane, what is claim is? A window pane assembly for generating electricity in response to light comprising a window pane in which are embedded a number of solar cells electric circuit permeability, electricity is connected here. So, that way this is the claim or (Refer Time: 06:00) apart the fencing.

So, the area of the invention somehow in charged from the claim. From the claim portion and. So, inventors also used that the claim. So, again claim also in essential component for a complete specification. For provisional specification, you may not require claim, but complete specification claim is essential parameter. Do you remember a claim righting is an art, it depends upon the practice? So, a claim is important components of a complete patent specification, got the thing. Claim is important components of a complete patent specification.

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HOW TO DRAFT COMPLETE SPECIFICATION?

.....TITLE SHOULD BE PRECISE

.....PREPARE STATEMENT OF INVENTION BASED ON PRIOR ART

..... PROVIDE DETAILED DESCRIPTION IN THE FORM OF DRAWING/FLOWCHART

.....CLAIM: SINGLE SENTENCE RULE
: DIFFERENT TYPES OF CLAIM
: TRANSITIONAL PHASE... TRANSITIONAL PHRASES "COMPRISING",
"CONSISTING ESSENTIALLY OF, INCLUDES ETC.

EXAMPLE:

A WINDOW PANE ASSEMBLY FOR GENERATING ELECTRICITY IN RESPONSE TO LIGHT
COMPRISING:
A WINDOW PANE IN WHICH ARE EMBEDDED A NUMBER OF SOLAR CELLS,
AN ELECTRICAL CIRCUIT PERMANENTLY ELECTRICALLY CONNECTED TO THE SOLAR
CELLS AND CONVERTING DIRECT CURRENT GENERATED BY THE SOLAR CELLS IN
RESPONSE TO SOLAR ENERGY INTO OSCILLATING CURRENT, AND
AN EXTERNAL CIRCUIT MAGNETICALLY COUPLEABLE TO THE ELECTRICAL CIRCUIT FOR
CONVEYING ELECTRICAL ENERGY GENERATED BY THE SOLAR CELLS FROM THE WINDOW
PANE AND MOUNTABLE ON THE WINDOW PANE

And abstract, is also another component. So, now, say little bit idea I should give you, with reference to how to draft complete specification? Because here also lot of job opportunities, although you consider complete specification is not completely is a techno legal document, not a technical not a legal. It is a techno legal document. So, input from the technologists, input for lawyer may require for drafting that specification. Somebody earn that skill. So, he will also earn lot of money.

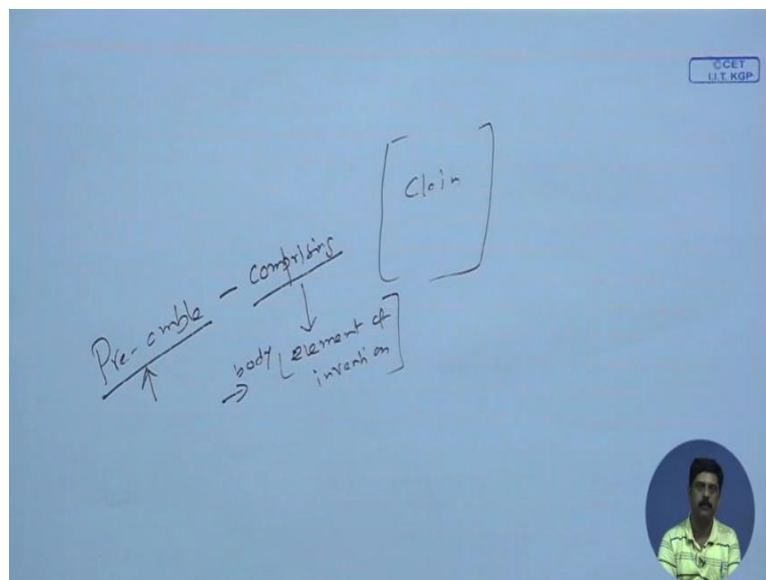
So, how to draft the complete specification? So, draft the complete specification involves; say title first invention title as referred, title should be précised. What do you mean by précised? Title should not be absurd, just like say a nearly amount perhaps, say I mentioned this (Refer Time: 07:50). A nearly amount first, a material. It should nearly amount is not concrete; it should be precise means 60 percent amount first material or 30 percent crystalline material. So that is a concrete. So, that is should be precise.

Then prepare a statement of invention based on prior art. What is the prior art or prior art problem you are trying to solve based on that you should prepare your statement of invention. Then provide details description of, this in the form of a drawing or flow chart. If you are invention, I shall suggest your invention is a process, you should go for a flow chart because flow chart, it will be easy for you describe a process by means of a flow chart. If it is say, device you should give a drawing of the device by means of a deal, each unit of the device. So, a drawing by means of some embodiment then, claim is

a single sentence I have shown you that is a single sentence ruled. So, single sentence should be used by means of a different transitional phrases, just like comprising, consisting essentially of simply consisting includes like this. These are the transitional phase people use for righting the claim.

So, these are the tricks to right or claim just like say I will show you again that claim that whatever I have shown you now, that is window pane assembly for generating electricity in response to light comprising, comprising unit transitional phrase, a window pane then you are just giving what is that? Let us say title of the invention that is called preamble. The preamble you are linking by means of transitional phrase. Then you are giving the essential features.

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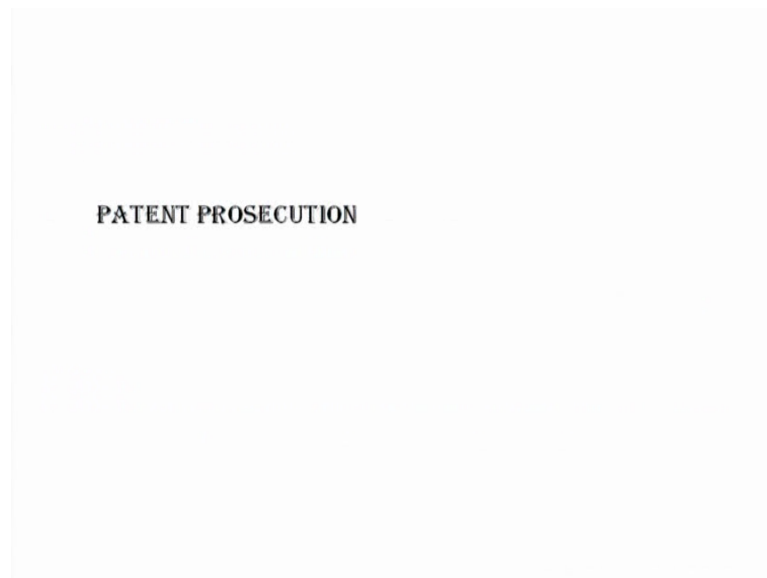
So, what are the things you may consider? A preamble, then a transitional phrase means comprising here, in this case. Then is coming next say description means elements of your invention elements or sometime is called claim body. Element of invention or you may consider claim body. So, this is called body of the claim.

So, what is that essential component of a claim? A preamble then, a transitional phrase, then body; body means elements of invention. So, these are the components of a claim? So, what (Refer Time: 10:17) preamble, then a transitional phrase, then body means the features of the invention. Sometime we call different types of claims are like a principle claim, then independent claim, dependent claim (Refer Time: 10:34) claims, different

types of claims are there. It is not so much required for you people, but you just learnt that always better, for to first write independent say independent claim. Then you just depend that others claim on the claim also. Claim 1; let see the element comprising of a, b, c subsequently you describe claim. We claim a device as claimed in the unit 1; as claimed in comprising of or includes such and such. So, then you just in a, sometime you call structure all the structures of your invention you give in a respect of giving some independent claim.

Now you just like say you give others material, just like say sometime we call, just like construction of building, construction of idol you create a structure. So, then fill up those structures using other materials just say (Refer Time: 11:40), sometime cement so and others. So, like this way you first create the structures, then, you keep the structure because otherwise the structure is also not complete. So, structure you have to fit along by means of others thing. So, independent claim is giving the structure, the dependent claim is giving the flesh of the structures in the form of sands stones or a mud whatever you are thinking got the thing.

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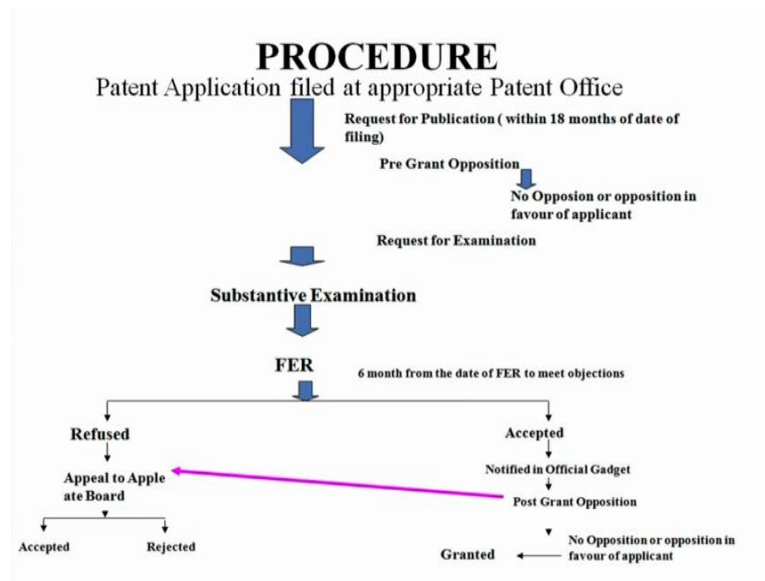


So, this way you may think about the claim components. All though this is very tricky situation, but I just like the laymen's or understanding you got an idea about the patent specification. All though this is a may be required a full semesters to learn all those kinds of thing, but as a technologist or engineers you should learnt at least, what is complete

specification? What will be the content of a complete specification? Even if you are not drafting, somebody will not able, you have to ultimately, if attorney is interrupting you then, ultimately you have to pass the draft of attorney.

So, at least if you have knowledge about the content of patent specification, then you will able to judge whether attorney is because attorney based on the service money whatever you are providing is drafting for you, but it is your baby, your rights. So, you should be more cautious. So, for that reason, I will suggest you should know also the little bit about the drafting. So, the drafting part you should read as for the (Refer Time: 13:24) how will you learn, I will suggest you read patent specification from USB to IPO, then based on your area of interest, then you will be able to learn how at least 3, 4, 5 (Refer Time: 13:36). So if you read then you will get an idea about the (Refer Time: 13:40) specification. So, already I am behind let us say already I supposed to finished that in the class 1, but let us say I am continuing further.

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Let us say, now you have filed the patent application. So, now, what will happen to the patent applications, that part I shall. First I will refer that work flow, how the work flow will go? So, in that regard I have just created a flow chart and tried to explain you that work flow related to your invention, what is I am considering a patent application. So, patent application file at appropriate patent office. So, I am suggesting you, you have filed a patent application in which, you are from Gujarat. Let us consider that you have

filed a patent application in Mumbai patent office. So, now, when you file patent application they will give a number, that is considered as patent application number. Then you will get a date. So, you are getting already the right means you are not lose any novelty, if somebody came up with another invention after that date. If some, in prior art something is available before that date then automatically you are losing the novelty. So, patent application filed in appropriate patent office.

Then, you may thought about I am following the expressed root then you can go for a request for publications. So, immediately after filing also, you want to publish your patent application then file a request for publication. If you are not interested for expressed publication because patent that somehow, some cases interpretation wise referred that your rights will start from the date of publication. So, some cases because that by request of publication why? That will lead to the public notifications because I referred already that based on disclosure, inventor will disclose the invention based on the disclosure the state is providing some rights in the form of a patent right to the inventor or applicant.

So, that way you want to get patent based on expressed provision. So, you can file a request for publication. So, this is called request for publications any time after filing patent applications, but within 18 months because after 18 months you will automatically publish without your request also it will be published by the patent office. Where, it will be published in the patent office website. Then what will happen, then it will can go for, you can ask for a pre grant opposition within a specific period of time, any person can file a pre grant opposition, any person from where? Any person from anywhere in the world can file a pre grant opposition. On the grounds for pre grant opposition, I will refer in the next slides. Just like say that your patent invention is not of value, you got you have no right to file patent applications.

All though you are invention is not patentable all those different grounds are there to form person interest, not interested person to file a pre grant opposition within a specific period of time from the date of publication.

No opposition or opposition in favor of applicant then, you will proceed in between you can file a request for examination. They are required to pay. So, application patent application file, filling you have to pay the filling fee is mentioned there or like say

defined entities say individual legal entity, legal entity including this smaller medium enterprises. So, patent office rule suggested different filing fees for different persons (Refer Time: 17:11) include individuals. Then you can file a request for examinations within 48 month most probably, in 14 8th form date of filing, you have to field a request for examination.

If you do not file a request for examination, your patent will not be examined. Another thing there is some cases the pre grant opposition and request for a examination may go simultaneously just like say examination opposition may go simultaneously situation may rises like. So, request for examination also you can find within 48 months. So, you may ask me for the request, I can file a request for examination before 18 month. So, regarding that they are creating some express provisions, but because the pre grant opposition is a situation.

So, pre grant position automatically will start from the date of publications. Then you can go for they will examine substantively based on the patent act rules. What are the rules? Just like say whether the content of the patent application, the formal means content is correct or not that formula, then the technical examination with reference to preventability, invention not preventable whether servicing disclosure have been provided because sometime better inventor or applicant do not disclose the invention properly, but the examiners is working on the behalf of the state or public. So, they want complete disclosure of the invention because somebody should not another person on should not after patent get expired. So, means after the 20 years period. So, other person should try or that invention because that will be public goods. So, the sufficient disclosure should be provided. So, that these are on the ground for examinations also then it is not clear, not precise all those things are ground for examination.

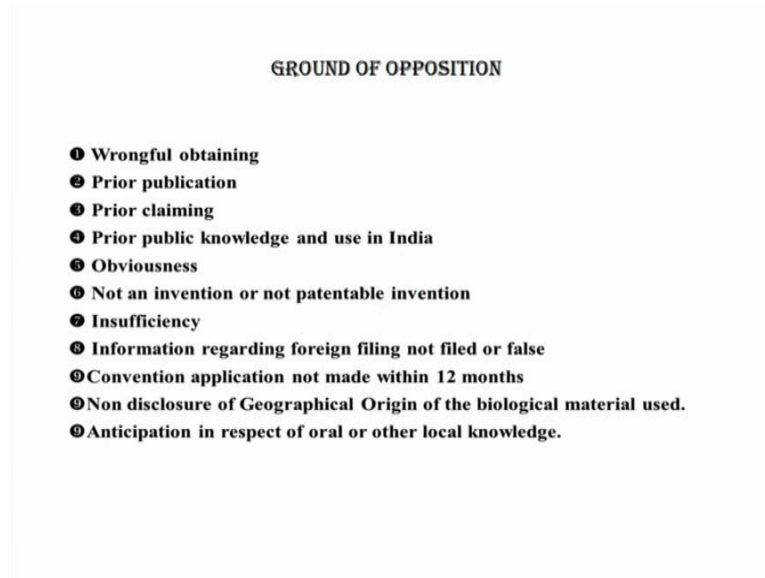
Then appear first examination report will be issued to you. Now already the new rule suggested within 6 months from the date of first FER you have to comply with the objections. Then it comply with the objection then it will be accepted, then it will be again notified in the official gadget like it is (Refer Time: 19:17) in the patent office website, then again there it will go for a post grant opposition. Any person again can file a opposition means any person not here, I forgot to mention you are not nay person. The first cases in the any person this case is any person interested can file opposition grounds just like similar type of grounds, just like say not just like say wrongfully obtained, then

is not an invention, not a patentable invention, not sufficiently disclosure have been provided because now the your invention is publically available, they can read your patent specification. Then automatically, generally you may consider some competitor, somebody is interested in your invention. They can go for what I suggested person interested.

So, person interested means who has a research interest or business interest. So, who has research interest and business interest can go for a post grant opposition. So, now opposition will be decided, if opposition you are now say opposition can be appealed to applete board, all those situation are there. If the opposition is decided in favor of the applicant then in that case that, it will be granted. So, you will get a certificate from the patent office. Certificate is a proof of your right, if a opposition is decided agrees to you, then you can be appeal for a to applete board to using the (Refer Time: 20:45) you go to High Court, High Court to Supreme Court that way it may proceed. That say, that also Supreme Court ultimately will decide the fate of the situation. If that opposition or opponent either parties, either opponent or applicant can go. If it is not satisfied with the decision of the controller, who will decide the opposition in office, then they can go to applete board for respect to the opposition then subsequently go to High Court may be or lightly we go to Supreme Courts also.

So, you got the stages of the patent prosecutions. How the patent application will move in a patent office? Means filing of applications, then request for the different milestone, request for publication, request for examination, request for obligation optional, request for examination must, examination then FER, response to FER is a must for you. Then if opposition is there contest the opposition, that is must for you. So, milestone if I ask that publication may be pre grant opposition, request for examination, examination report (Refer Time: 22:00) with the examination questions, then post grant opposition if any then it will be granted. So, you will get a certificate.

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This is the situation for getting a patent from the patent office. So, now, I referred already. What are the grounds that have been prescribed for opposition? For let us say wrongfully obtaining (Refer Time: 22:22) first and two inventors you are denying, have been denying the rights.

Let us say research scholar is involved in the some invention, but ultimately he got the patent publication was published by the patent office, he found his name is not listed or you are a student, you are also part of that invention somehow the persons whom you are working (Refer Time: 22:46) deprived, your rights as an inventor. So, you wrongfully obtained or somebody from you just by means of some other means, you have got the invention from other persons. Just like say considering present, today's newspaper incidents also.

So, wrongful obtaining, then prior publications just like a it is already available in the just like a prior art format, prior claiming format, it is available in prior patent forming assembly. So, it is prior public knowledge or news in India already referred to you in the prior art. It is the prior art for all three other prior art form is obvious means invent (Refer Time: 23:25) criteria is not met. He is not in invention, not a patentable invention just like I already referred.

Sufficiency disclosure is not provided I already referred, information regarding foreign filling is not field or false, this based on you already filling for the same invention, you

have field patent application in other country, but you have not stated anything in this just like say, in your applications or you are giving the wrong information, that you filled a patent application with the same invention in the other country, but or you are field patent application in the other country based on that you are filing here. So, all the information you have to provide it by, all though somebody tell it is burden to the applicant, but Act has suggested, you have to give a details regarding foreign filling of the same invention not for that, how many other with reference to the other patent application you are filing not that, with reference to the application whichever you have field regarding that what are the foreign filling you have made because I told patent right is a territorial right.

So, you have to provide that, then convention application not made within just like say I will come later on that part. If I have to non disclosure of geographical origin of the biological material whatever you have been using, just like say you have not disclosed that there is a procedure in Act that the Act suggested you have to give the where from that? Using that where from you? Where from the biological material just like you are using let us say some let us say grass root or some bamboo roots from, let us say you are from Kharagpur area. So, from bamboo roots you are generating alcohol. So, now, the bamboo roots I will consider as the biological material. So, you have to give the bamboo roots originated from Kharagpur, in the patent specification bamboo root from Kharagpur or you have, let us say extracting some other chemical from that say from some insects. So, insect is from let us say, Meghnapur. So, you refer that insect from Meghnapur.

So, in your patent space when you do not disclose that thing, also this is will be the ground for opposition, then local knowledge, oral disclosure means we already disclosed or it is available in the from a prior art in the form of a prior knowledge or additional knowledge format. So, it will also with the ground of opposition, just like say you are thinking about patenting an some attribute of the Haldi, that was in a local knowledge or traditional knowledge in a Himalaya region of some tribal people, then some representative from the tribal people can also oppose that. So, not only that any person you do not in this case, for patent opposition you do not have to prove, that I am the person interested for that.

For post grant opposition you may have to prove, that I am the person interested because I have the interest on the ground of business and interested on the grounds of discharge. But for pre grant opposition, you do not require to prove that, you are the person interested any person can oppose on that ground. So, these are the ground for opposition. So, these are the steps involved to get a patent.

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So, my story you have understood now to get patents, just like say filling of patent applications by whom? By inventor or assignee or legal representative then, file patent application will be published by the patent office then, patent office may be pre grant position or then it will be first examination report will be issued then, you have to comply the examinational report then, it will be published for post grant opposition then, you will get the patent grant means they will provide, patent office will provide a certificate means let us say then, the certificate if you see that is stated that, this is with reference to product or process, what rights the patent office? What right you have with reference to that patent in India? And how long you have the right? The certificate will be provided regarding that. So, these are the say, somehow I this class is reference to patent prosecution. So, this is the prosecution with reference to the say pre grant prosecution.

So, last two classes you are getting. How to file patent application? Who can file patent applications? Where to file patent application? What will be the content of your patent

application? Provisional complete, how to draft a complete specification? You got an idea little bit. How to draft a claim? What is the importance of the claim? All the things you got the things. So, subsequently I will discuss about the, just like it is not a complete. So, you got the right from the patent office, but the right is not say, you have to right just like say you got by means of a certificate, but subsequently say you have a right for 20 years. So, what are the different others say, milestones you have to follow, may have to follow because this is the, some cases situation may arises, in that case you have to follow that milestones. So, those are the somehow we consider the post grant prosecution.

So, I will subsequently discuss about the prosecution in the form of a post grant format. So, now, you have got, let us say again I am repeating same situation. Who can file? How to file? Where to file, content of your patent application? When to file patent application? What is the importance of provisional applications or provisional specification content of provisional specification? What will be the content of a complete specification; then after complete specification, what procedural aspect patent office will follow, what procedural aspect you have to be aware of that? Let us say you are not receiving any communication from your attorney or from the patent office.

If you know the milestones then, you can set the alarms in your minds and you can ultimately decide that let us follow up because the follow up will be also required. So, this is not for the applicants also, as an inventor you are the applicant. So, then you have to know about the milestones, that you are filing the patent application and sleeping, then you will miss may be, you will get right to get the rights by means of certificate will be delayed. So, should have knowledge about the milestone that should be followed, to get at least the certificate part. Subsequently, I will discuss about after certification; also what are the other steps you have to be followed.

Thank you.